

**PRELIMINARY ENGINEERING REPORT
SMITH MOUNTAIN LAKE
WATER TREATMENT PLANT
BEDFORD COUNTY, VIRGINIA**

FEBRUARY 15, 2013

**REVISED
May 10, 2013**

Prepared for:

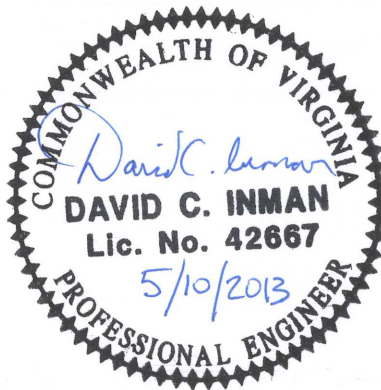
Bedford County Public Service Authority

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Blacksburg, Virginia
A&A JN 29701
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June 7, 2013

SUBJECT: Bedford County
Smith Mountain Lake Central
Water System
PWSID No. 5019400

Mr. Brian M. Key, Executive Director
Bedford County Public Service Authority
1723 Falling Creek Road
Bedford, Virginia 24523

Dear Mr. Key:

A Preliminary Engineering Report prepared by Anderson & Associates, Inc. for Bedford County Public Service Authority located in Bedford County, has been reviewed by this office. The report is entitled "Preliminary Engineering Report, Smith Mountain Lake Water Treatment Plant, Bedford County, Virginia" and is dated February 15, 2013 with revisions dated May 10, 2013.

The report evaluates the design of a 6.0 MGD water treatment plant to ultimately serve the Smith Mountain Lake area, City of Bedford, and Forest Area of Bedford County with the ability to expand the plant to 12.0 MGD in the future. The report evaluates design alternatives for the raw water intake, raw water pump station and transmission line, and water treatment facilities. It recommends a fixed raw water intake system, vertical turbine pumps at the raw water pump station, and pressurized hollow fiber membrane filters with associated appurtenances. Sodium permanganate raw water pretreatment and finished water disinfection are also recommended.

In accordance with § 12VAC5-590-200 of the Commonwealth of Virginia *Waterworks Regulations*, the Preliminary Engineering Report is approved by this Department with the following conditions:

1. Prior to submission of final plans and specifications for this project, submit information pertaining to the design-build schedule including an overview of the entire design-build project, milestones, and a proposed schedule for each subproject. Plans and specifications must be approved for each subproject prior to construction.
2. Plans, specifications and documentation for each subproject must be accompanied with supporting calculations for appropriate selection and sizing of equipment and facilities as indicated in the PER. This includes information pertaining to the membrane treatment equipment including: equipment manufacturer and model, equipment performance details, and an NSF Environmental Technology Verification (ETV) report (or similar product specific challenge test conducted in substantial conformance with the EPA's Membrane Filtration Guidance Manual.) This equipment must also be designed to meet the Department's design guidance document.



Mr. Brian M. Key, Executive Director
June 7, 2013
Page Two

SUBJECT: Bedford County
Smith Mountain Lake Central
Water System
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One copy of the report has been stamped approved and is enclosed. If we can be of additional assistance, please feel free to contact this Office.

Sincerely,



Mitchell R. Childrey, P.E.
Engineering Field Director

JDR:ga

Enclosure

cc: ODW-Central
David Inman, P.E., Anderson & Associates, Inc.
Rhonda English, Engineering Manager, BCPSA
Bedford County Health Dept., Attn: Kerry W. Gateley, MD, MPH, CPE, Director

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*Legend: Figure A-3.1 = Figure is located in Section A, Paragraph 3.1



EXECUTIVE SUMMARY

The Bedford County Public Service Authority (BCPSA) commissioned Anderson & Associates, Inc. (A&A) to prepare a Preliminary Engineering Report (PER) in 2010 that evaluated the feasibility of a countywide water system to serve the Lake area, Forest area and connect to Bedford City. The 2010 PER (*Lakes-Bedford-Forest Water Supply Evaluation*) evaluated several alternatives for serving a Countywide system and connecting to Bedford City and ultimately recommended that a 5.0 MGD facility be constructed and the existing High Point WTP be upgraded to 1.0 MGD for a combined capacity of 6.0 MGD. These treatment facilities would be connected to the distribution system via a proposed 24-inch main along Route 122 from the Lakes area to Bedford City, and a 20-inch main along Route 460 from Bedford City to the Forest area. Later phases of the project proposed in this PER include an 18-inch main along Whitehouse Road and a booster pump station on Route 122. The Virginia Department of Health approved this PER (originally dated August 16, 2010 and revised on June 10, 2011) on July 7, 2011, but considered it to be a feasibility level study due to lack of technical details and calculations normally included in a PER. The approval was based on the following conditions:

1. Detailed Preliminary Engineering Report(s) for the water treatment plant and water distribution system expansion must be approved prior to submittal of plans for construction permits.
2. The PER for the water treatment plant must include any required water withdrawal permits.
3. The PER for the distribution system must include an agreement between the BCPSA and Bedford City for the system interconnection.

The BCPSA commissioned A&A to prepare the present PER to satisfy VDH approval conditions related to the treatment plant in order to move forward with the project. The specific purpose of this PER is to evaluate the intake, raw water pumping/transmission, and treatment facilities for a proposed potable water treatment plant near Smith Mountain Lake. These proposed facilities, hereafter referred to as the Smith Mountain Lake Water Treatment Plant (SML WTP), would immediately serve the Lakes Central and Moneta areas of Bedford County, as well as provide water to the Western Virginia Water Authority for their customers in Franklin County. It is ultimately proposed to serve the Forest area of Bedford County and connect to the City of Bedford's water system so that the two entities' water utilities are interconnected. Bedford City and Bedford County are currently proceeding with a reversion process, whereby Bedford City intends to relinquish its status as a City and incorporate itself as a Town within Bedford County. On August 13, 2012, the Bedford County Board of Supervisors voted to support the legal agreement proposing to revert the City of Bedford to a town. These documents, collectively called the "Reversion Agreement", include a provision that the City's existing potable water system must be connected to the County's water system before December 2016. The current reversion process is expected to conclude in July 2013 and the water and sewer utilities in the City are slated to be merged with the BCPSA's system and staff.



This PER considers locating all treatment capacity (6.0 MGD) at the proposed SMLWTP rather than having 5.0 MGD capacity there and 1.0 MGD capacity at High Point as recommended in the 2010 study. At the same time, it briefly evaluates the best use of equipment and facilities at High Point for this scenario. This was done to achieve efficiency of operation so that the BCPSA has a single treatment plant to operate and maintain instead of two.

As long term water supply plans were finalized within the region, Western Virginia Water Authority (WVWA), approached the BCPSA about participating in the development of additional capacity.

Alternatives were evaluated for multiple processes that make up the treatment train for the proposed 6.0 MGD SML WTP, with the ability to expand to 12.0 MGD, including membrane treatment and conventional treatment. Preliminary cost estimates were developed for each alternative and selections for the alternatives were made based on lowest lifecycle costs. The following table summarizes the recommended alternatives and costs for the WTP processes:

System	Recommended Alternative	Total Project Cost
Intake	Fixed Intake System with two 30-inch intake pipes and two 44-inch diameter screens with dock structure	\$1,030,000
Intake Pump Station	Wetwell with three vertical turbine pumps and an emergency generator enclosed in a 30'x50' two story building (configured to resemble a residence)	\$2,150,000
Raw Water Main	30" Class 200 ductile iron water main with valves every 3,000 feet	\$2,870,000
Pretreatment	Sodium permanganate chemical injection system (installed at High Point WTP) for organic removal	\$90,000
Treatment Plant	6.0 MGD pressurized membrane filters with appurtenances installed in an 14,000 square foot building (includes lab and office space), with a 250,000 gallon raw water tank	\$10,780,000
Backwash Treatment	Relocate Pall AP-4 membrane skids from High Point WTP, and construct a 30,000 gallon holding tank and pumps	\$330,000
Backwash Disposal	10,000 gallon equalization tank and upgrades at Pump Station #4 to pump waste to the Moneta Wastewater Treatment Plant	\$80,000
Clearwell	Precast or cast-in-place concrete rectangular tank with internal baffles	\$1,180,000
Finished Water Pumps	Three split case or vertical turbine pumps with adjustable frequency drives located in treatment facility or adjacent to clearwell	\$720,000
Forest System Improvements	Convert master meter to emergency water supply, install telemetry controlled PRV on transmission main, install altitude valves on New London/Althea Grove tanks	\$236,000
Disinfection	Liquid sodium hypochlorite system, with bulk storage, transfer pumps, day tank, and metering pumps.	\$180,000
TOTAL		\$19,646,000



Annual O&M costs for the recommended alternative are estimated to be in the range of \$833,000 per year based on a production rate of 3.0 MGD (average daily flow at 20 years).

Based on the findings in this report, the following actions are recommended:

- Recalculate the financial assessments that were prepared by Morgan Keegan and summarized in a report titled, *Financial Impact Study of Future Capital Projects* with updated project costs developed in this report.
- Conduct a Preliminary Engineering Conference with VDH to review the findings of this report and review the overall project.
- Begin the design of the water treatment facility as soon as possible. This could be accomplished under a regular design contract, or through an alternative method like Public Private Education and Infrastructure Act (PPEA) or Design/Build.
- Begin the design and construction of the 18-inch and 24-inch water mains along Route 122 and Route 460 as soon as possible. In their approval letter of the **Lakes-Bedford-Forest Water Supply Evaluation**, VDH required a PER be prepared for the distribution system prior to reviewing plans. This requirement can likely be discussed further at the Preliminary Engineering Conference.



A. INTRODUCTION

1. Background and Purpose of the Report

In 1998, construction began on the Bedford County Public Service Authority (BCPSA) surface water treatment plant (WTP) serving the High Point subdivision using Smith Mountain Lake as the source. At the time, this WTP was the first surface water plant in the state to use membrane filtration as the treatment technology and one of few in the United States treating surface water. In 2010, the BCPSA received a Certificate to Operate from VDH for a capacity of 0.77 million gallons per day (MGD) following the installation of new membrane filters several years earlier. The plant was re-rated and permitted in 2012 at 1.0 MGD, which is the ultimate capacity of the current membrane filters; this capacity upgrade was achieved by upgrading the booster pumps and modifying finished water piping.

In 2010, Anderson & Associates, Inc. (A&A) prepared a feasibility study entitled, *Lakes-Bedford-Forest Water Supply Evaluation*. This study reviewed various technical and financial feasibility alternatives for water system upgrades to provide county-wide service. Hydraulic capacity and water quality issues along with intake and treatment capacity were evaluated. The study recommended that a new regional WTP be constructed, along with a 24-inch transmission main along State Route 122 and a 20-inch transmission main along U. S. Route 460.

The purpose of this Preliminary Engineering Report (PER), is to further develop alternatives for intake, distribution, treatment, and disinfection by-product (DBP) removal for the new regional WTP, hereinafter referred to as the Smith Mountain Lake WTP (SML WTP). The PER summarizes the existing data on raw water quality and demand projections. Alternatives for pumping and treatment are developed and evaluated. Planning level cost estimates are included in the evaluation. Finally, recommendations for development of the WTP and distribution system are provided.

2. Previous Studies

Previous studies related to this PER are listed below:

- a. 1994 *Comprehensive Water and Wastewater Study* for BCPSA by Anderson & Associates, Inc. (A&A).
- b. 1997 Final Water Quality Summary and Full Scale Demonstration Testing Protocol, High Point Water Treatment Plant for BCPSA by A&A).
- c. 2000 Master Plan for Water and Sewer System Improvements for City of Bedford by Thompson + Litton.
- d. 2003 Preliminary Engineering Report for the State Route 122/Burnt Chimney/ Smith Mountain Lake Water Distribution System Volume I of II by Thompson + Litton.



- e. 2004 U.S. 220 North Water System Evaluation by Thompson + Litton.
- f. 2007 Bedford County 2025 Comprehensive Plan.
- g. 2009 *Water and Sewer Master Plan* for BCPSA by Draper Aden Associates.
- h. 2009 Region 2000 Local Government Council Regional Water Supply Plan by Draper Aden Associates and Malcolm Pirnie.
- i. 2010 *Lakes-Bedford-Forest Water Supply Evaluation* for BCPSA by Anderson & Associates, Inc.
- j. 2010 *Smith Mountain Lake Withdrawal Study* for BCPSA and Western Virginia Water Authority (WVWA) by Anderson & Associates, Inc.
- k. 2006 *Wastewater Service Evaluation, Hales Ford Bridge to Westlake Area* for Franklin County Board of Supervisors by Anderson & Associates, Inc.
- l. 2010 Roanoke Valley-Alleghany Regional Commission Regional Water Supply Plan by Draper Aden Associates.

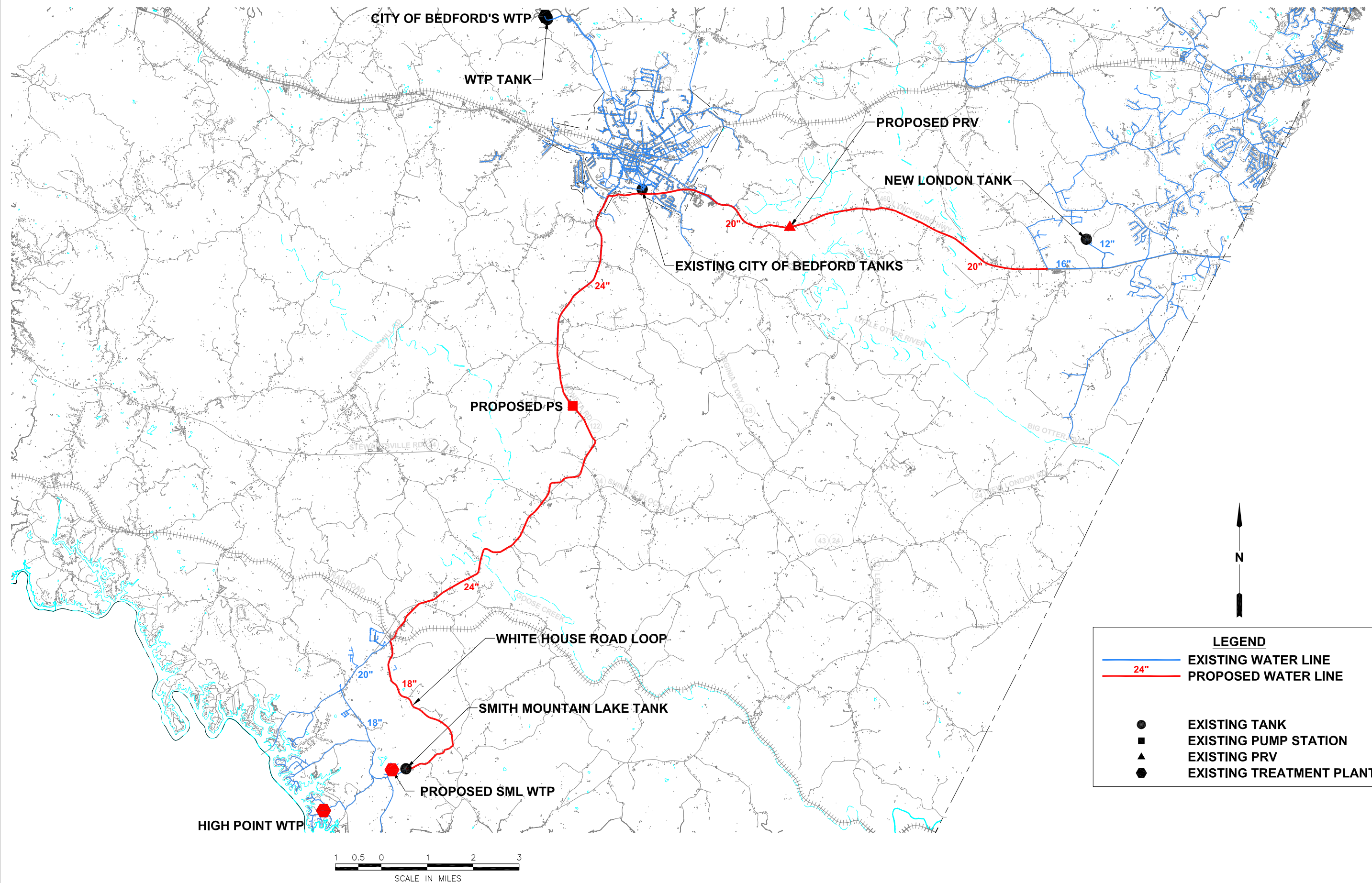
3. General Project Description

Currently, the BCPSA operates independent water systems in the Lakes and Forest areas of Bedford County. The Lakes planning area is located in the southwestern portion of the County: it extends from Smith Mountain Lake on the south to the City of Bedford on the north along Moneta Road (State Route 122). The Forest service area (also known as the Jefferson Planning Area) is located in the eastern portion of the County; it extends from the City of Bedford to the County line on the east along East Lynchburg Salem Turnpike (U. S. Route 460). There are additional water systems within the County; however, this PER focuses on these planning areas only.

The 2010 *Lakes-Bedford-Forest Water Supply Evaluation* recommended that the High Point WTP be upgraded to a capacity of 1.0 MGD and then the new SML WTP be constructed with a capacity of 5.0 MGD. These projects would be followed by construction of the Route 24-inch 122 and 20-inch Route 460 transmission mains, respectively. Projects that could be initiated as the need arises are the Whitehouse Road Loop pipeline and the Route 122 Pump Station, both of which would be improvements to the hydraulics of the system as demands increase in the future. Figure A-3.1 shows the proposed WTPs and transmission mains recommended in the 2010 study.



Due to the PSA's preference of keeping the treatment centralized at a single facility, this PER considers all of the required treatment capacity occurring at the SML WTP. The SML WTP is proposed to be located on Radford Church Road at the site of the former Camp 24 Moneta Adult Detention Facility which has been identified in previous studies as a suitable location for a regional facility. Currently, the 98-acre property is being prepared to turn over to Bedford County by the Jail Authority, at which point BCPSA will negotiate with the County for the area required for the treatment works.





4. Water Demand Projections and Assumptions for New WTP Capacity

Water use growth projections are based on BCPSA 2008 production records, the 2009 *Water and Sewer Master Plan*, and 2000 *Master Plan for Water and Sewer System Improvements* reports. The growth areas include Lakes and Forest areas. The City of Bedford is not included. The 2009 *Water and Sewer Master Plan* considered census population figures, Weldon Cooper and Virginia Economic Commission population projections and the *Region 2000 Water Supply Plan* in its development of water use projections.

Figure A-4.1 summarizes 2008 BCPSA water production and projections compiled from these reports and extrapolated as needed to bring the two sources of data into the same timeframe.

The average daily demand is calculated from the indicated growth rates from the above studies. The peak daily demand is estimated at twice the average daily demand. This peak daily demand factor reflects how summer time demands are greatly increased due to the increased population that lives at Smith Mountain Lake during summer months. The monthly peak factor used for Lakes is a straight line decline of 2.73 (actual) to 1.44 (estimated) over 50 years. The monthly peak factor used for Forest and City of Bedford is a constant 1.40.

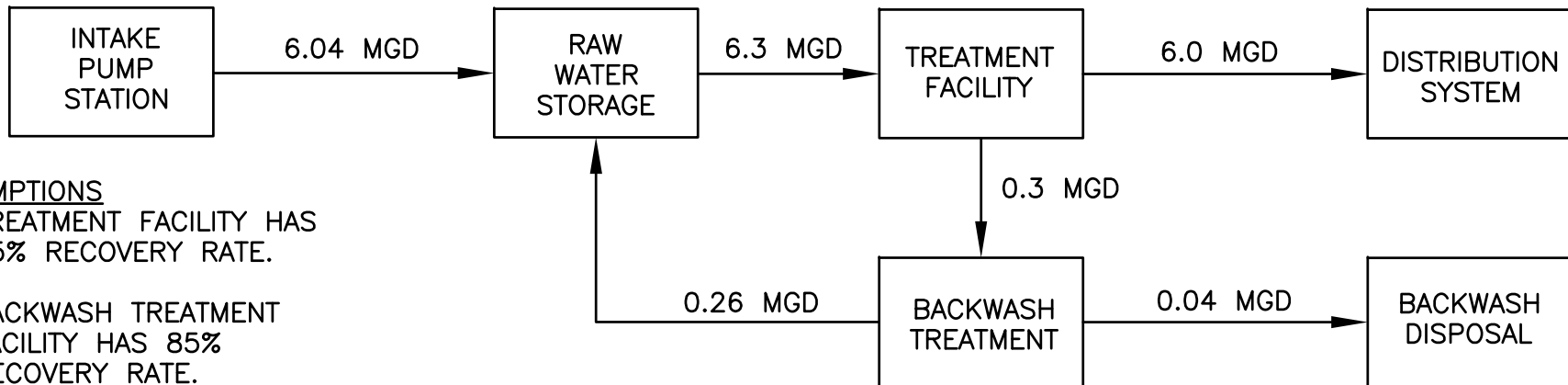
Twenty years was used as a typical planning period for treatment plant capacity. As shown in bold text in Figure A-4.1, at year 2030, this demand equates to 6.0 MGD for serving both the existing Lakes system and the Forest system. Although beyond the scope of this study, the combined demand of the Lakes, Forest, and Bedford systems should be considered in future planning. It should be noted that Franklin County has rights to 40% of the capacity of the High Point WTP (i.e., 0.4 MGD). The transmission mains would be sized for peak monthly demand over a 50-year planning period (i.e., 6.0 MGD).

Using these planning numbers, a water flow balance was prepared (see Figure A-4.2). This flow balance considers the case with and without backwash recycle, which will be further evaluated in the report.



Figure A-4.1 – Water Demand Projections (MGD)

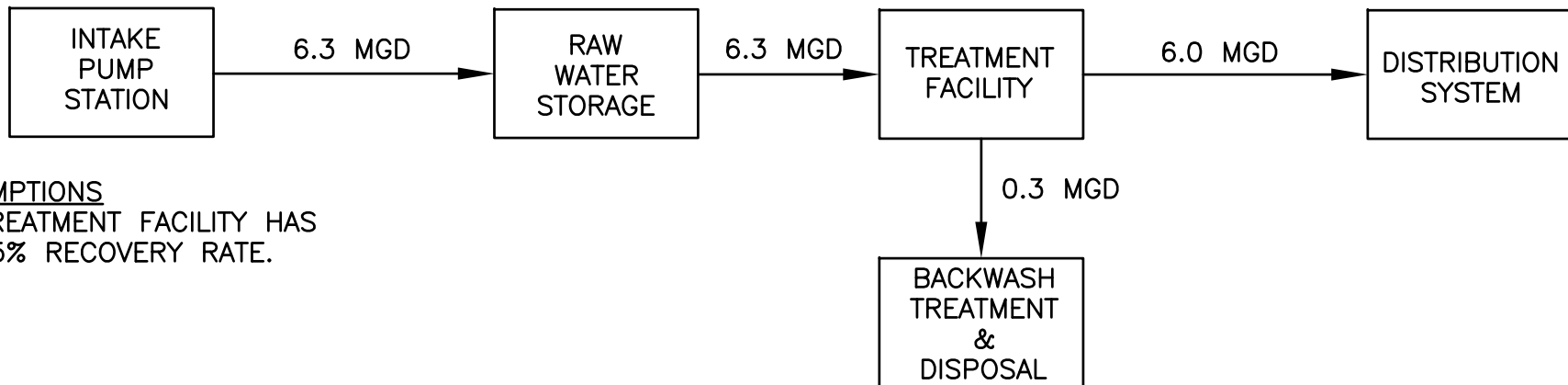
Lakes Water System					
Year	Rate of Growth (%/year)	Average Daily Demand (MGD)	Peak Daily Demand (MGD)	Monthly Peak Factor	Peak Monthly Demand (MGD)
2008	--	0.22	0.44	2.73	0.60
2012	8	0.30	0.60	2.68	0.80
2020	8	0.56	1.11	2.46	1.37
2030	1.5	0.64	1.29	2.20	1.42
2040	1.5	0.75	1.49	1.93	1.44
2050	1.5	0.87	1.73	1.67	1.45
2060	1.5	1.01	2.01	1.44	1.45
Forest Water System					
2008	--	1.40	2.80	1.40	1.96
2012	3.4	1.60	3.20	1.40	2.24
2020	3.4	2.09	4.18	1.40	2.92
2030	1.1	2.33	4.67	1.40	3.26
2040	1.1	2.60	5.21	1.40	3.64
2050	1.1	2.90	5.81	1.40	4.06
2060	1.1	3.24	6.48	1.40	4.53
Total Lakes + Forest Systems					
2008		1.62	3.24		2.56
2012		1.90	3.80		3.04
2020		2.64	5.29		4.29
2030		2.97	5.95		4.26
2040		3.35	6.70		5.08
2050		3.77	7.54		5.51
2060		4.24	8.49		5.98
City of Bedford System					
2008	--	0.85	1.69	1.40	1.19
2012	2.5	0.93	1.86	1.40	1.30
2020	2.5	1.13	2.27	1.40	1.59
2030	2.5	1.45	2.90	1.40	2.03
2040	1.5	1.68	3.37	1.40	2.36
2050	1.5	1.95	3.91	1.40	2.74
2060	1.5	2.27	4.53	1.40	3.17
Total Lakes + Forest + City of Bedford Systems					
2008		2.47	4.93		3.75
2012		2.83	5.66		4.34
2020		3.77	7.56		5.88
2030		4.42	8.85		6.29
2040		5.03	10.06		7.44
2050		5.72	11.45		8.25
2060		6.51	13.02		9.15



ASSUMPTIONS

1. TREATMENT FACILITY HAS 95% RECOVERY RATE.
2. BACKWASH TREATMENT FACILITY HAS 85% RECOVERY RATE.

WATER BALANCE WITH BACKWASH RECYCLE



ASSUMPTIONS

1. TREATMENT FACILITY HAS 95% RECOVERY RATE.

WATER BALANCE WITHOUT BACKWASH RECYCLE



ANDERSON & ASSOCIATES, INC.
Professional Design Services
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Blacksburg, Va. 24060
540-552-5592

DATE : 27 JUN 12
DESIGNED:
DRAWN : RTM
CHECKED :
QA / QC :

REVISIONS:

SMITH MOUNTAIN LAKE WTP
PRELIMINARY ENGINEERING REPORT
BEDFORD COUNTY, VA

FIGURE A-4.2 - WATER BALANCE

DOCUMENT NO.
29701
SHEET
OF



5. Viable Water Sources

The 2009 *Region 2000 Local Government Council Regional Water Supply Plan* describes the existing water sources in Bedford County. These water sources consist of public community water systems owned and operated by the BCPSA and privately owned community water systems. BCPSA operates the three major public community water systems; i.e., Forest and New London, Lakes, and Stewartsville. The Forest and New London water system use water purchased from the City of Lynchburg. Stewartsville uses water purchased from the Western Virginia Water Authority (WVWA). The Lakes system's main water source is Smith Mountain Lake. BCPSA also operates smaller community water systems using groundwater wells.

There are 25 private community water systems using groundwater. Homes and businesses use individual groundwater wells. These wells are generally limited in capacity and vary in quantity throughout the year. There is one private community water system, Eagle Eyrie Baptist Conference Center, which uses a 5-mg surface water reservoir.

Smith Mountain Lake is the most viable water source for the SML WTP for the following reasons:

1. **Reliable Supply** - Two rivers, the Blackwater and the Roanoke, are the main tributaries to Smith Mountain Lake. The Roanoke River is the larger of the two tributaries and drains a watershed that includes the Roanoke metropolitan area. The surface area of Smith Mountain Lake is 31 square miles, and the catchment area is 1,029 square miles. Mean depth of the lake is 115 feet, with a maximum depth of 200 feet. Smith Mountain Lake stores approximately 2,300,000 acre-foot (i.e. 750 billion gallons) of water at full pond levels and the length of the shoreline is 500 miles. The extensive drainage basin and very large volume makes the lake a reliable supply.
2. **Quality** - The 1997 Water Quality Summary indicated that the quality of the water is very good at the current and proposed intake location. Water quality results indicated that the water has low turbidity levels most of the year and is devoid of other constituents that would typically require specialized treatment. A summary of the water quality data from this report are provided in the next section.
3. **Compatibility with Smith Mountain Lake Goals** – Since the mid-1960's, when the reservoir was created, the primary use of Smith Mountain Lake has been to provide hydroelectric power to western Virginia. The reservoir also has a significant economic function as a very popular recreation site for boating, swimming, fishing, and other activities. Many resort homes, condominiums and year-round residences are located on the shores of this reservoir. Another important function is as a public water supply for the region. The proposed SML WTP would be compatible with the goals of the Lake Management Plan.



B. SOURCE AND FINISHED WATER QUALITY

1. Source Water Quality

In 1995 and 1996, an extensive source water analysis was conducted at Smith Mountain Lake. Multiple locations and depths were sampled to identify the best location to locate a raw water intake. The results of this analysis were summarized in the 1997 Water Quality Summary submitted to the Virginia Department of Health (VDH). The source water meets the requirements of §9 VAC 25-260 of the Virginia Water Quality Standards (January 2011) for public water supply. In 2008, the BCPSA also performed LT2 source water testing for E. Coli. The results of this testing and selected parameters from the raw water quality data from the 1995-1996 testing are provided in Figure B-1.1.

Figure B-1.1 – Raw Water Quality

Constituent	Average	Range
Alkalinity	75 mg/L	52 – 104 mg/L
Total Dissolved Solids	119 mg/L	115 – 121 mg/L
Dissolved Organic Carbon (DOC)	12.4 mg/L	2.4 – 24.2 mg/L
Total Organic Carbon (TOC)	12.5 mg/L	2.4 – 24.3 mg/L
Iron	0.10 mg/L	<0.01 – 3.0 mg/L
Manganese	0.02 mg/L	<0.01 – 0.1 mg/L
Total Hardness	95 mg/L	89 – 100 mg/L
Giardia	-	<5.1 – 230 per 100 L
Cryptosporidium	-	<5.1 – 20 per 100 L
Fecal Coliforms	4 MPN per 100 mL	1 – 33 MPN per 100 mL
E. Coli	0.6 E. Coli/100 mL	0 – 3.1 E. Coli/100 mL
pH	7.6 S. U.	6.5 – 8.9 S. U.
Temperature	16 degrees C	2.7 – 29.8 degrees C
Turbidity	4.9 NTU	1.0 – 28.1 NTU

2. Finished Water Quality Goals

The finished water quality goals for the proposed SML WTP are generally less than the Maximum Contaminant Levels (MCLs) listed for primary and secondary contaminants in the Safe Drinking Water Act. Additionally, the parameters listed in Figure B-2.1 have been identified as goals to consider for the proposed SML WTP.

Figure B-2.1 – Finished Water Quality Goals

Parameter	Target Concentration
pH	7.5 – 8.0 S.U.
TOC	30% reduction
Turbidity	≤ 0.1 NTU (100% of Time)



3. Summary of Current Regulations

3.1 National Regulations

Virginia has adopted the drinking water standards of the U. S. Environmental Protection Agency (EPA) Safe Drinking Water Act (SDWA). The SDWA provides the basic rules for water quality produced by a treatment system and has been amended several times over the years. The rules under the SDWA are either finalized and in effect, finalized and not yet in effect, proposed, or under development.

Finalized rules presently in effect are:

- Surface Water Treatment Rule (SWTR)
- Total Coliform Rule (TCR)
- Stage 1 Disinfectants/Disinfection By-products Rule (Stage 1 D/DBPR)
- Stage 2 Disinfectants/Disinfection By-products Rule (Stage 2 D/DBPR)
- Interim Enhanced Surface Water Treatment Rule (IESWTR)
- Filter Backwash Recycling Rule
- Chemical Phase Rule
- Phase I, II, and V Contaminant Rules
- Lead and Copper Rule (LCR)
- Long-Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)
- Long-Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR)
- Radionuclides Rule
- Arsenic Rule
- Ground Water Rule

Currently, the EPA is proposing revisions to the TCR and LCR (Journal AWWA, March 2012). The proposed revisions to the TCR require systems that have an indication of coliform contamination in the distribution system to assess the problem and take corrective action. The proposed revisions to the LCR are long-term issues such as partial lead



service line replacement, sample site selection; tap sampling, measures to ensure optimal corrosion control, and public education about copper. Sample site selection could potentially impact all systems and would require revising all of the sampling plans and obtaining primary agency approval for these revisions. To optimize corrosion control treatment, the range of allowable water quality parameters could be tightened.

The LT2ESWTR will be reviewed again in 2012 to discuss impacts of uncovered finished water reservoirs (Journal AWWA, March 2012).

In February 2011, EPA announced that a national drinking water regulation would be developed for perchlorate based on a new analysis of the potential health effects on newborns and infants. EPA has until February 2013 to develop the proposed regulation. For affected systems, the cost impact could potentially be significant. At this time, it is unclear the level to which EPA will regulate perchlorate (Journal AWWA, March 2012).

In March 2011, EPA proposed Unregulated Contaminant Monitoring Rule 3 (UCMR3) for 28 chemicals, including pharmaceuticals. EPA anticipates the final UCMR3 will be published in 2012 with monitoring conducted between 2013 and 2015 (Journal AWWA, March 2012).

The most significant of these rules to the potential treatment technology and operational practices used at a new SML WTP is development of a perchlorate MCL and UCMR3. Perchlorate can be generated as a byproduct of disinfection practices. It is formed during the degradation of sodium hypochlorite, but steps can be taken to minimize its formation by certain storage and handling practices of sodium hypochlorite that will be discussed later in this report.

UCMR3 may eventually lead to an MCL being developed for pharmaceuticals. The presence of pharmaceuticals and endocrine disruptors in the nation's drinking water supply has become increasingly recognized as a potential threat to human health. These pollutants enter into the drinking water supply when they are excreted by the public and aren't removed at the wastewater treatment facilities that discharge to surface waters. An Associated Press report in 2008 drew attention to this fact when the report investigators discovered that low concentrations of prescription drugs were detected in the drinking water supplies of 24 major metropolitan areas (Jeff Donn, Martha Mendoza and Justin Pritchard. AP Probe Finds Drugs in Drinking Water. Associated Press, March 9, 2008). Treatment technologies that have shown promise in reducing pharmaceutical levels in drinking water include membrane processes, advanced oxidation processes, and granular activated carbon filtration.



U. S. Army Corps of Engineers has jurisdiction for structures or work including excavation, dredging, and/or disposal activities and activities that alter or modify the course, condition, location, or capacity of a navigable water under §33 CFR Part 322 (Permits for Structures in or Affecting Navigable Waters of the U.S.).

3.2 State Regulations

Under the Public Water Supply Law, Article 2 of Chapter 6 of Title 32.1 of the Code of Virginia, VDH is empowered to supervise and regulate all waterworks and water supplies within Virginia. The regulations related to quantity, quality, and development structures for surface water sources are provided in VDH Waterworks Regulations §12 VAC 5-590-830. The Virginia Water Quality Standards (§9 VAC 25-260) regulate water sources used for public water supply.

Sections §12 VAC 5-590-870 and 880 of the Waterworks Regulations apply to mixing, sedimentation, and filtration. Taste and odor are covered in §12 VAC 5-590-960, and waterworks waste is covered in §12 VAC 5-590-990. With the exception of sanitary sewage and flows recycled through the water treatment system, the wastes generated during the operation of the plant (e.g., filter backwash and pre-sedimentation sludge) are considered to be industrial wastes. Disinfection, pump stations, and plant storage (e.g., washwater tanks and clearwells) are covered in §12 VAC 5-590-1000, 1020, 1040, and 1090, respectively.

Membrane filtration is currently regulated in Virginia through Working Memo 880 (WM 880). This memorandum provides guidance for the use of membrane filtration technology for pathogen and turbidity removal. Under the guidelines, conventional process approval procedures for microfiltration and ultrafiltration, hollow fiber, positive pressure driven membrane filtration technology may be followed (§12 VAC 5-590-200). This memorandum also provides guidance for the preparation of waterworks operation permits and for surveillance of existing and new membrane filtration systems.



C. EXISTING WATER TREATMENT AND INTAKE FACILITIES

1. Smith Mountain Lake Intake Description

The intake location for the proposed SML WTP is proposed to be the same as the High Point WTP intake. The 2010 SML Withdrawal Study compared five intake locations and evaluated them based on six primary criteria; environmental, site availability, site access, site development, water quality, and zoning. The conclusion of the report was that the existing intake site should be used to locate the proposed intake.

The existing intake permit is currently being reviewed by the Virginia Department of Environmental Quality (VDEQ) for an increase of its current permitted peak capacity of 2.999 to 12 MGD. The Joint Permit Application (JPA) and water withdrawal permit application were submitted in March 2011. After an extensive review process, DEQ issued an unofficial copy of the draft permit on January 7, 2013, and are awaiting confirmation of wetland delineation from the U. S. Army Corps of Engineers for the project area. The unofficial copy of the draft permit is included in Appendix F.

The existing intake structure consists of a submersible, adjustable depth, float-suspended wire screen, 24 inches long by 24 inches diameter with 1-mm openings and a screen velocity less than 0.5 fps at 1 MGD. The intake screen connects to the raw water pump station through an 8-inch diameter HDPE and ductile iron pipe. Figure C-1.1 is a schematic of the existing intake pipe and screen.

The raw water pump station consists of a wetwell, valve vault, and two submersible turbine pumps (one on-line and one backup). Raw water is pumped to the raw water storage tank located at the treatment plant. Each pump is rated 695 gpm at 250 feet TDH and driven by a 60-hp motor. The raw water pumps are controlled by level controls in the raw water storage tank. A raw water flow meter is provided inside the WTP. The raw water is strained at the WTP prior to the raw water storage tank through a 1-MGD automatic self-cleaning strainer system with a 40-mesh screen size.

2. High Point WTP Process Description

The original High Point WTP was constructed in 1998 at a capacity of 0.06 million gallons per day (MGD) to serve the High Point subdivision. The WTP was rated at a capacity of 0.77 MGD in 2010 to serve the Lakes central water system. In 2012, the WTP was upgraded to 1.0 MGD by modifying the finished water pumps and interior piping.

The raw water storage tank is a 20-foot diameter glass-lined bolted steel ground level tank (68,000 gallons) equipped with separate inlet and outlet piping, overflow, drain, center roof vent, ladder with safety cage and locking cover and access hatch.

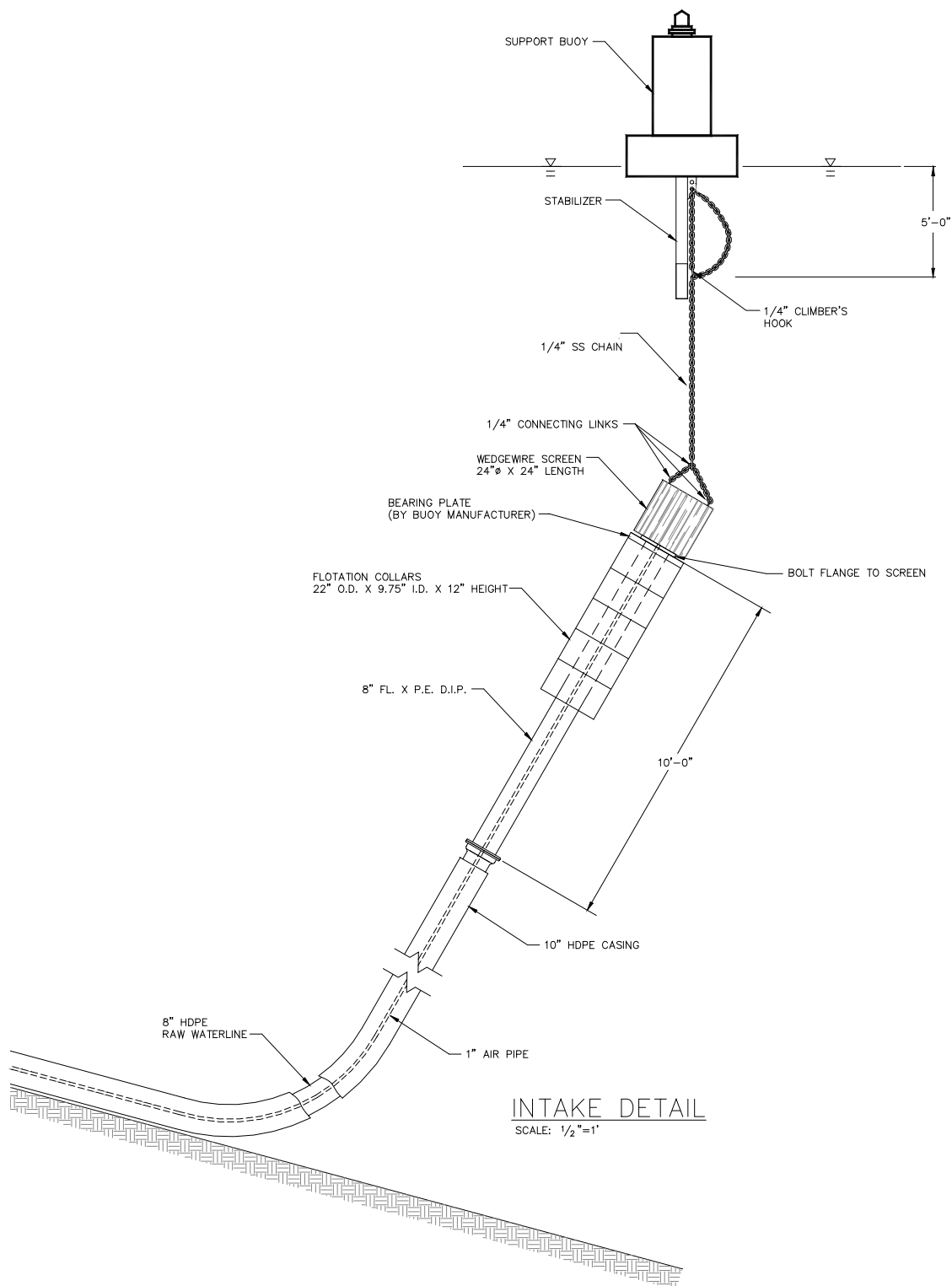


Figure C-1.1 – Existing Intake Schematic



Potassium permanganate is injected in the raw water ahead of the raw water storage tank. The feed pump has a capacity of 30 gpd, and the solution tank capacity is 55 gallons. Typical dosage is 0.7 to 1.0 mg/L.

The High Point WTP has three membrane filtration skids in service. There are two Pall AP-4 membrane filters with 28 modules each and a single Pall AP-3 skid with 6 modules. The AP-4 membrane skids filter raw water from Smith Mountain Lake, and the AP-3 membrane skid filters the backwash water from the two AP-4 membrane skids. The AP-3 discharge is returned to the raw water tank and the AP-4 discharge is disinfected and stored in the clearwell prior to pumping to the distribution system. Each membrane filter skid has its own feed tank and an individual feed pump that draws water from this tank to produce filtered effluent. The AP-4 membrane skid feed tanks are filled by gravity from the facility's raw water storage tank. The AP-3 membrane skid feed tank is filled from pumps in the facility's backwash holding tank; it has a capacity to treat 0.24 MGD of backwash at a flux rate of 40 GFD. The two AP-4 skids operate at a flux rate of 40 gfd to achieve 0.5 MGD each for a combined production capacity of 1.0 MGD.

Sodium hypochlorite is injected in the filtered water prior to the clearwell tank. The chemical feed pump has a capacity of 48 gpd and the solution tank has a capacity of 55 gallons. Typical dosage is 1.0 mg/L.

The clearwell is a 17-foot diameter glass-lined bolted steel ground level tank similar to the raw water storage tank. Four baffled compartments are provided to improve the baffling factor to 0.5. The working volume ranges from 34,800 to 49,200 gallons.

The finished water centrifugal pumps are powered by 75 hp motors with 9.125-inch impellers. They also have variable speed drives to allow for more user control. The capacity of 694 gpm or 1.0 MGD is achieved between 94 and 96% of full motor speed (56.5-57.5 Hz).

3. Challenges with Current Facilities

The High Point WTP would be difficult to expand at the present site due to limited land area, inadequate building space and backwash waste disposal constraints; and would not meet the long-term water requirements for the County. With a new SML WTP being constructed, it may be advantageous to move the existing treatment equipment to the new site, repurpose the building for other use, or abandon the WTP altogether.

One of the main constraints of the present site is that backwash is disposed of via two infiltration basins. The existing backwash disposal area is limited to approximately 3900 square feet and could not support a plant capacity above 2 MGD due to relatively poor soil infiltration rates. In the past, the BCPSA has had to replace soils in these infiltration basins to keep up with the disposal needs of the current facility.



D. REVIEW OF ALTERNATIVES

A variety of systems and processes are proposed to be constructed to support the SML WTP. This section presents a review of two or three alternatives available for each of the process streams. Since sizing of some of the unit processes will depend on the overall flow balance of the selected process train, this PER assumes the treatment and pumping capacity is 6.0 MGD peak and 3.0 MGD average. Where appropriate, consideration of the ultimate future capacity of 12.0 MGD is also made in the PER. Final design should consider the overall flow balance of the selected alternatives and ability to expand to 12.0 MGD in the future. This PER also assumes that the proposed treatment facility site is located at Camp 24 and the intake is at the same site as the existing intake.

1. Intake

In order to increase the amount of water available for withdrawal, the existing intake piping and screening must be upgraded. Several configurations are used for water intakes, and the selection of a suitable configuration is based on site conditions and constraints. The major considerations for this intake are:

- Water quality is good to excellent with very little “trash” or debris present at the proposed intake depth.
- Smith Mountain Lake cannot be dewatered to accommodate the installation of a new intake.

A cylindrical wedge wire intake screen submerged in the lake was considered under these conditions. The use of a mechanically cleaned intake screen located in the Raw Water Pump Station did not appear practical due to the nature of the solids to be screened. The use of a conventional concrete intake “tower” placed in the lake was initially considered and dismissed as impractical to construct under the given conditions (approximately 60-75 feet offshore in about 25-30 feet of water) and concerns about negatively impacting the view of the lake for residences in the cove where the intake is located.

The alternatives considered are a “floating intake” using intake screens supported by buoys and a “fixed intake” where the intake screens and piping are permanently anchored to a structure. Both alternatives appear technically feasible and offer unique advantages and disadvantages. Each of these alternatives is described here.

1.1 Alternative 1 - Floating Intake

General Description: The floating intake alternative is similar to the existing intake system except that multiple intakes would be used to obtain the needed capacity. In this configuration, a drum or tee type wedge wire cylindrical intake screen is supported by buoys. Much of the weight is supported by buoyant underwater collars with the remaining weight supported by a surface marker/retrieval buoy. Water from the intake screen is transferred to the raw water pump well through a flexible polyethylene pipe.



In this configuration, the screens would be suspended at a “fixed” depth below the surface of the lake. The elevation of the screen would vary with lake level and could be expected to vary by 8 feet. The “fixed” depth can be altered or adjusted manually by raising the screen and changing the length of the suspension cable between the buoy and screen.

Preliminary Sizing: Both drum type and tee type screen configurations were initially considered for the floating intake alternatives. A drum type screen is a cylinder with the outlet pipe connected to the end. A tee type screen is similar to two drums with the outlet connected perpendicularly between them.

Preliminary calculations (see Appendix D) were performed to determine the optimum screen configuration and outlet pipe size for this alternative. These calculations were based on screen openings of 1 mm that have been used successfully with the current intake. A 1 mm size opening allows exclusion of debris and aquatic life and should also help minimize operations and maintenance of downstream processes. Outlet pipe sizes were considered to minimize head loss between the screens and pump station wet well. A summary of the configurations that were considered follows:

Number	MGD/Unit	Type	Screen Dia. (in.)	Outlet Pipe (in.)
1	6.0	Drum	66	30
2	3.0	Drum	44	20
3	2.0	Drum	36	18
4	1.5	Drum	33	16
1	6.0	Tee	44	30
2	3.0	Tee	33	24

The floating intake alternative requires a more flexible outlet pipe than a fixed intake. The use of three drum type inlets was considered as having sufficient pipe flexibility without the use of an excessive number of intakes.

In summary, the floating intake consists of three 36-inch drum type intake screens, each with an 18-inch outlet pipe to the Raw Water Pump Station.

Conceptual Plan: The three intake screens will provide an initial capacity of 6 MGD and will be placed to allow the incremental addition of three more screens to provide an ultimate capacity in excess of 13 MGD. In addition to the three intake screens, three mooring points would be provided to allow easy positioning and stability of a barge and lifting equipment to be used for periodic maintenance. A conceptual layout is shown on Figure D-1.1.

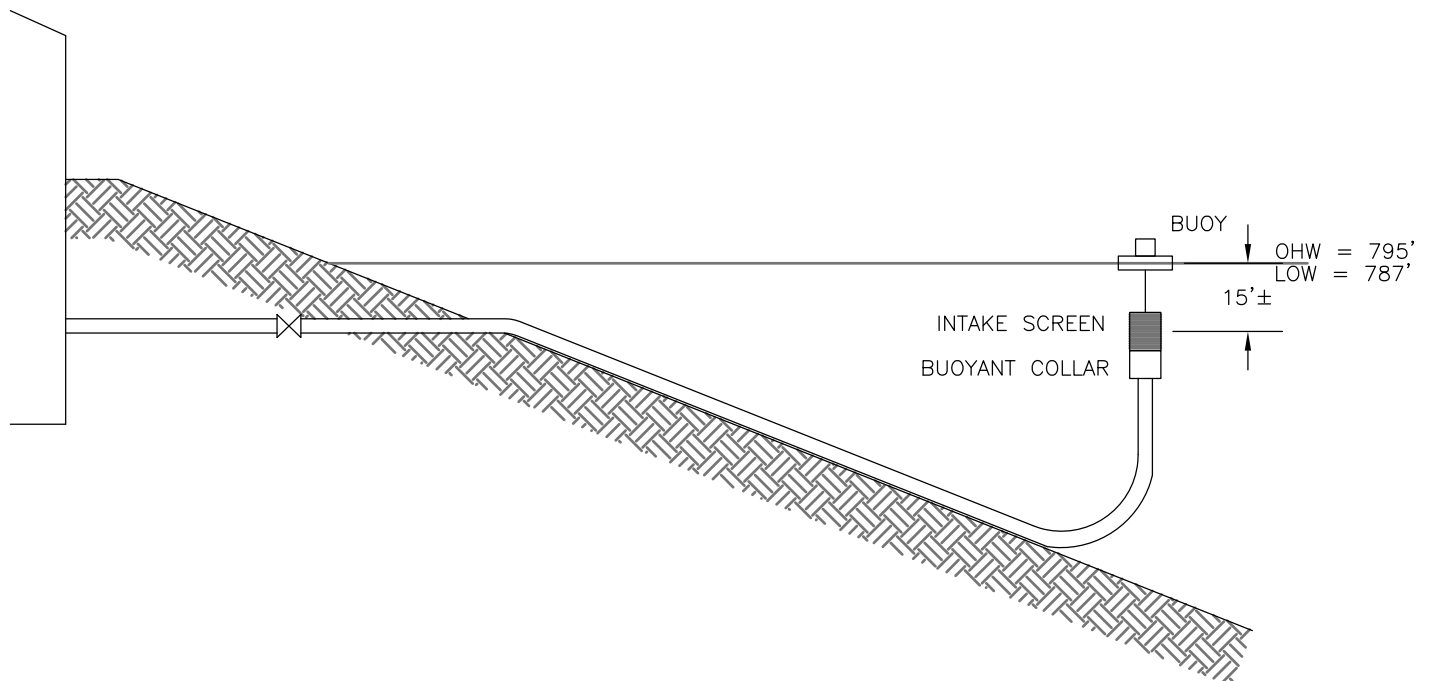
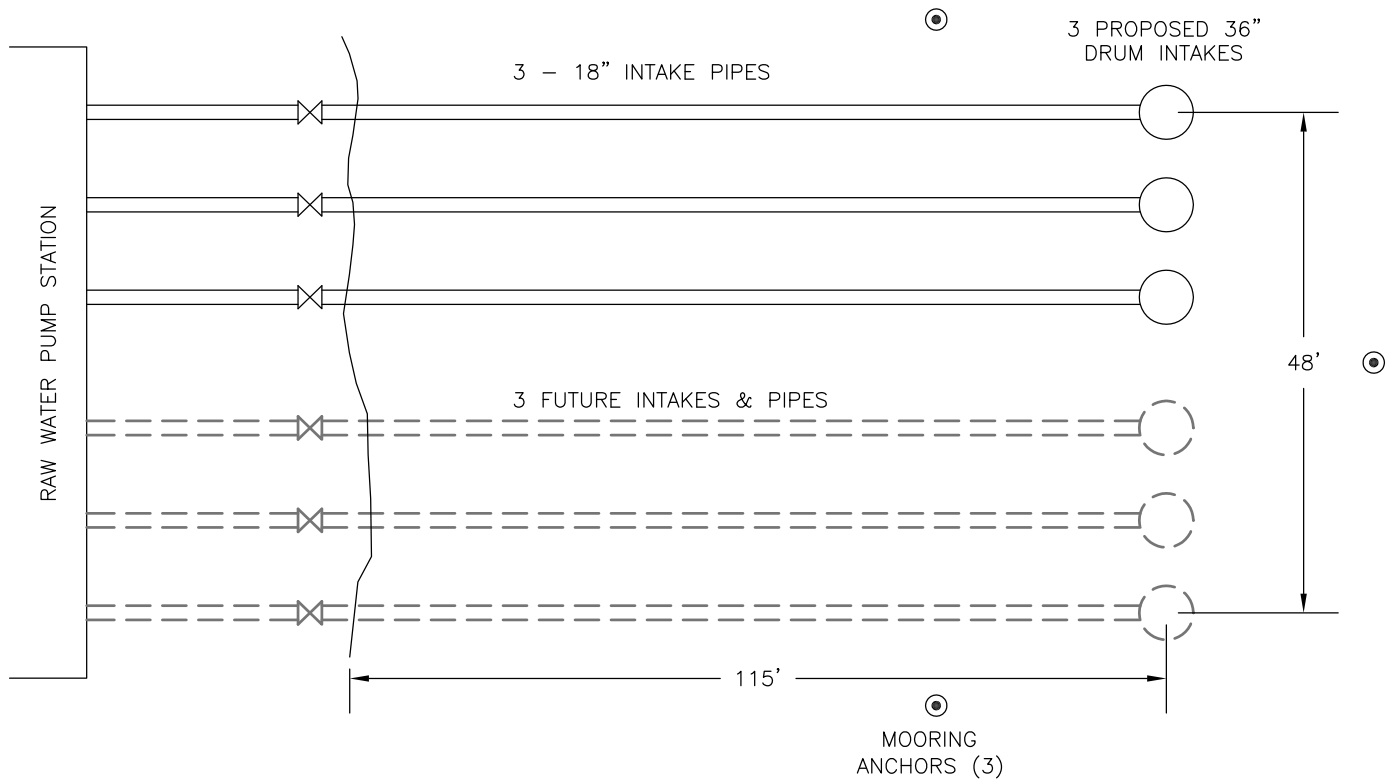


Operation and Maintenance Requirements: This configuration allows the screens to self-regulate the depth of the intake below the water surface. As long as the same depth is desired, no additional operation is needed. Should a change in the depth be desired, the floating screen configuration would require the use of a barge or large boat to lift each screen and adjust the operating depth. While the Authority has not seen a past need to make depth adjustments, the process of making an operational adjustment of depth is not very convenient under this configuration. Frequent adjustment to maintain a more constant intake elevation would not be practical with this configuration.

By comparison with traditional external screens, the submerged intake screens require little, but still some, routine maintenance. Primary maintenance consists of keeping the screens clean so that adequate water can flow to the raw water pump well. An air scouring system is used to routinely provide a burst of air to blow loose debris off the screen. The air scour process is automated and the air supply compressors will require routine maintenance.

The screen can be treated during fabrication with a coating to help minimize bio-fouling; however, a biological growth will occur and require cleaning that air scouring cannot achieve. Cleaning will require the use of a barge and lifting equipment to bring each screen to the surface. Mooring buoys should be installed to make this process easier. Once at the surface, the screen can be pressure washed and inspected. The initial frequency for this additional cleaning is anticipated to be about 2 years. This frequency could potentially be reduced with the use of a bio-fouling resistant coating, but that should be evaluated during design.

Construction Considerations: The major consideration with intake construction is that, while it is mainly piping, this is not typical utility construction. Pipe installation between the shoreline and the Raw Water Pump Station will require shoring. The pipe to the raw water well will be significantly below lake level. Installation of the screens, pipe, pipe anchor, and mooring anchors in the lake will also require the use of a specialty contractor.



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**FIGURE D-1.1
FLOATING INTAKE ALTERNATIVE**

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1.2 Alternative 2 - Fixed Intake

General Description: The fixed intake alternative consists of an intake screen or screens suspended under a permanently anchored pier that extends into the lake. A work platform would be placed at the end of the pier and provided with a means of adjusting the intake elevation and lifting the intake screens out of the water for routine or emergency inspection or maintenance. The concept for this alternative is to provide the Authority immediate access to the intake screens if needed and to reduce the need for and cost of an outside contractor for maintenance.

The primary benefit of this alternative is improved convenience and control of both operation and maintenance by the Authority. To this end, the work platform will be sheltered in an enclosure constructed to look like a boathouse. In addition to providing shelter for the operators, the “boathouse” will contain an overhead electric hoist for each screen.

Preliminary Sizing: With this alternative, the outlet pipe between the screen and raw water pump well can be partially supported by the pier structure. This lends itself to the use of a larger diameter polyethylene outlet pipe allowing the use of fewer intake screen assemblies. In fact, as shown in the table of Section D.1.1, a single tee type screen can provide the initial 6 MGD capacity and two can provide in excess of 12 MGD.

While a single tee screen is capable of providing the initial needed flow, a single screen leaves the entire water supply vulnerable if it were to fail. The use of multiple screens was considered. It would take two 30-inch screens to meet initial demands and two additional to supply the total 12 MGD demand. The cost of a 30-inch screen and connected inlet pipe is not that much less than the cost of a 44-inch intake. Constructing both 44-inch screened intakes initially versus one now and one in the future provides the Authority with the desired reliability and no increase in total cost. The second intake screen could be installed initially at less cost than adding it later, but the cost is not deferred and increases the initial intake cost.

In summary, this alternative consists of two 44-inch tee type wedge-wire screens with 30 inch outlet pipes mounted on a fixed pier that extends into the lake. The pier would include a sheltered work platform with a means to adjust elevation or lift the intake screens from the water. The shelter would be constructed to have the appearance of a boathouse.

Operation and Maintenance Requirements: As with a “floating screen” assembly, the primary maintenance is keeping the screen clean. An air scour system would be used for routine maintenance of the fixed screen as with the floating screen. The larger tee screen is a single assembly and has more surface area, and thus would require more air than for multiple smaller screens which could be cleaned individually. However, the anticipated maintenance for either system would be about the same.



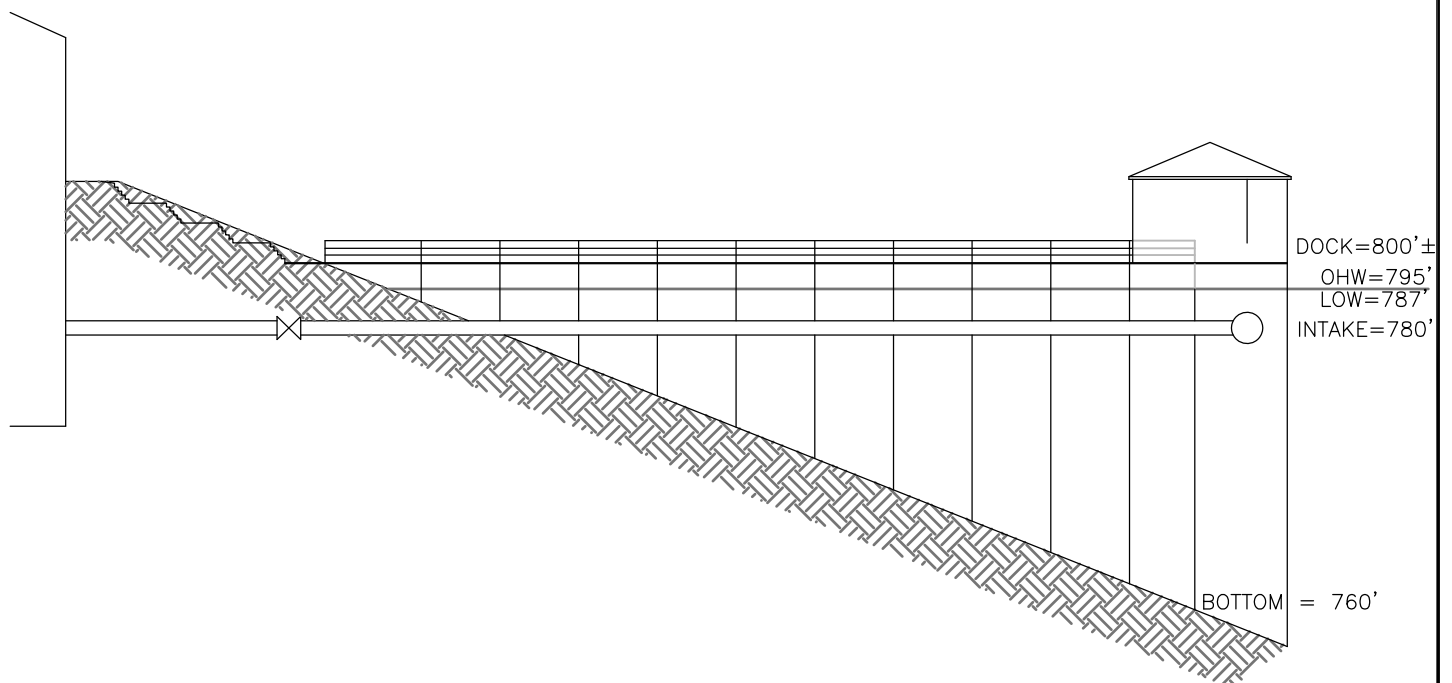
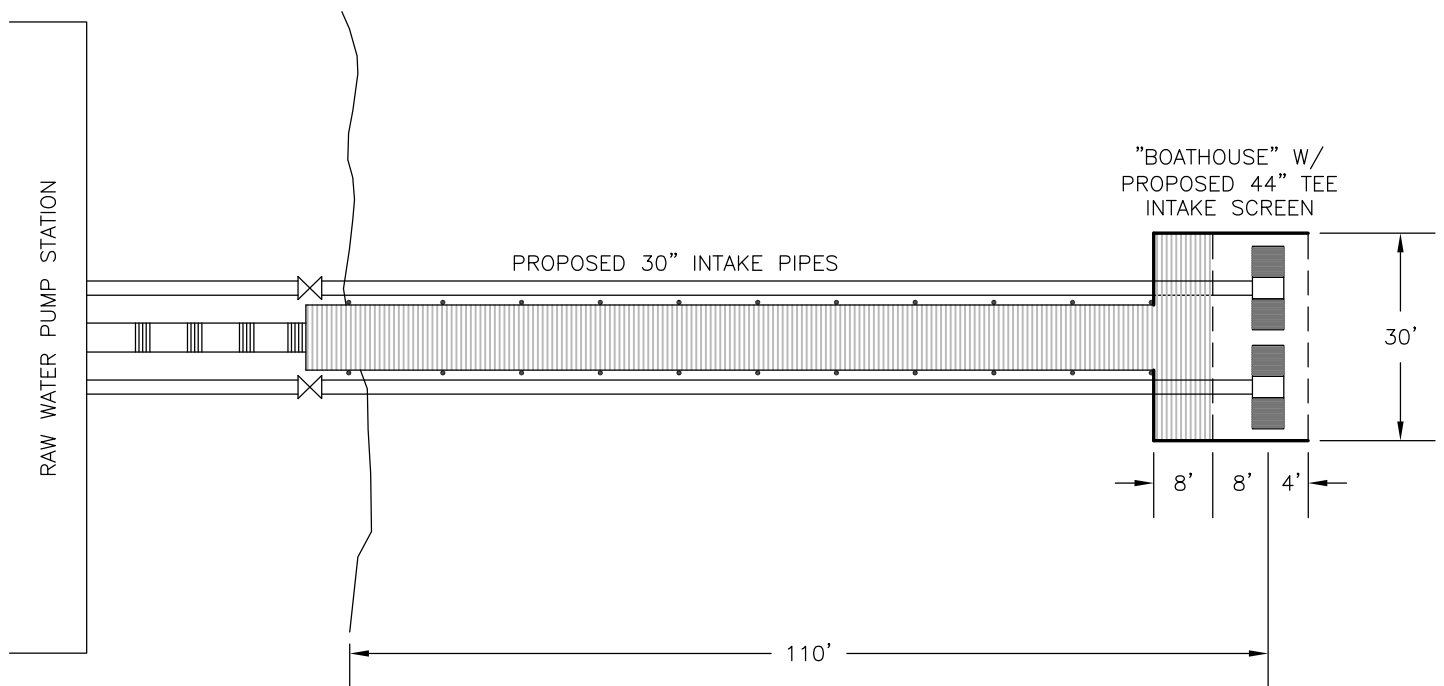
The pier makes access to the sheltered work platform and maintenance of the screen more convenient. It also allows the work to be performed by Authority personnel. The anticipated frequency of inspection and maintenance should not be any different from that required for a floating screen. The pier, work platform, lifting system, and building will all require maintenance. It is anticipated that the pier will require minor annual maintenance and will likely require deck replacement and major maintenance at about 15 year intervals.

Conceptual Plan: The pier would be constructed with a treated wood or composite deck to have an appearance similar to other boat or fishing piers at the lake. The deck would be framed with treated lumber and supported by driven steel pipe piles. It is anticipated that the pier will extend approximately 110 feet into the lake. The work platform at the end of the pier would likely include a cross deck constructed in a “tee” configuration. The boathouse would likely be framed with treated wood and clad with vinyl siding. The support structure would be framed or reinforced with steel to support the screen load. The pier would not be constructed to support the load of the screen should it require removal for severe maintenance or replacement. Complete removal of the screen for “outside” service would still require the use of a large barge and crane. While this is not anticipated, the design and construction should accommodate it.

Two 44 inch tee type wedge-wire screen assemblies have been considered. The assembly would include an air scour system to allow routine cleaning of the screen. Electrical power would be extended to the work platform from the Raw Water Pump Station to accommodate the use of a portable electric hoist. A conceptual layout is shown on Figure D-1.2.

Construction Considerations: The construction of the pier and “boathouse” requires the use of a specialty contractor, but these services are available at Smith Mountain Lake. There is a practical limit on the length of wooden piles that can be readily obtained and driven at the lake of about 40 feet. Welded steel piles would be used for added strength, life, and to gain additional depth. It may be possible to use wooden piles at the shallower depths of the access pier. The single outlet pipe would likely be secured to the piles and the piles will require cross bracing. Both of these tasks will require underwater construction.

The on-shore pipeline to the raw water pump well will require the installation of two pipes, which will have to be secured to the pier structure. This will be more difficult than laying the intake pipes on the bottom as in the floating intake configuration.



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**FIGURE D-1.2
FIXED INTAKE ALTERNATIVE**

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2. Raw Water Pump Station and Force Main

A new raw water pump station and raw water main need to be installed in order to accommodate the 6.0 MGD capacity planned for the treatment facility. The existing pump station and wet-well are too small to upgrade and must remain in service while the new facilities are being constructed. Similarly, it is impractical to reuse any of the existing 8-inch raw water main that presently connects the intake to the High Point WTP as the line is insufficient size for the both the initial (6 MGD) and potential future capacity of the SML WTP.

The use of either a 24-inch or 30-inch pipe size was briefly evaluated because the pipe diameter affects the size of the raw water pumps. The use of 30-inch pipe has the potential to reduce energy costs slightly at a 6.0 MGD capacity (approximately 14 feet less head loss than if a 24-inch pipe is used) and significantly at a future 12.0 MGD capacity (approximately 46 feet less head than 24-inch pipe). A single 24-inch pipe was considered for the 6.0 MGD plant now and a dual 24-inch pipe in the future for the 12.0 MGD capacity, but this was ruled out due to concern about constructability of a future 24-inch pipe parallel to the existing since the utility corridor is tight in the residential area around the intake on Smith Mountain Lake. Thus, it is recommended that a single 30-inch pipe will provide the best benefit to the project for the 6.0 MGD and future 12.0 MGD capacity.

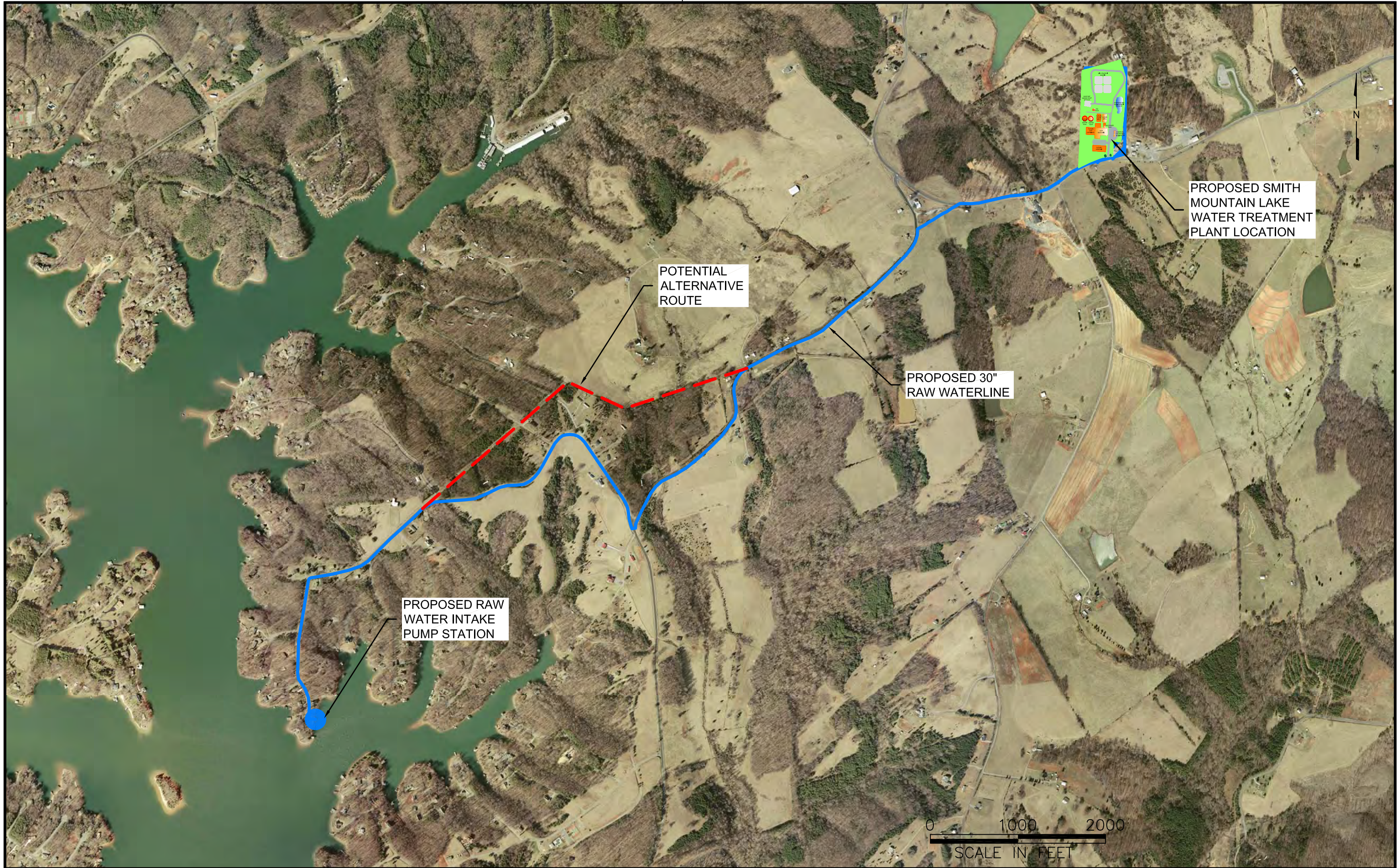
The new 30-inch waterline from the lake intake pumping station to the Camp 24 treatment plant site would require approximately 14,000 linear feet of waterline if constructed along road right of ways. If the line is constructed in a more direct route paralleling an existing electrical transmission line, the line would be approximately 12,750 linear feet. Both alternative routes are shown on Figure D-2.0. This 1,250 linear feet difference would comprise a significant saving during construction if the easements could be acquired without significant expense. Gate valves would be installed every 3,000 feet to facilitate maintenance needs along the raw waterline alignment.

Two pump alternatives are considered for the pump station: vertical turbine pumps and split case pumps.

2.1 Alternative 1 – Vertical Turbine Pumps

General Description: This alternative considers the use of three vertical turbine pumps to meet the raw water demands of the proposed SML WTP. A vertical turbine pump is a water pump where the motor is mounted above ground connected by a shaft to a pump below ground. These pumps typically have multiple stages, each consisting of an impeller on a shaft surrounded by stationary symmetrical guide vanes.

These pumps would be located above a concrete wetwell in a structure that could be designed to look like a boathouse or residential home in order to blend into the surrounding area. The structure would also house the electrical pump controls, air purge system, generator, telemetry, and access to the wet well.





The lake intake system would be piped directly to the wetwell to maintain a water level roughly equivalent with the lake level. The bottom wetwell elevation must be deeper than the lowest lake elevation of record with a small factor of safety for any potential future droughts that drop the lake below its lowest anticipated level. A typical pump layout plan is provided in Figure D-2.1.

Process Description: A combination of pumps is proposed at the raw water pump station (i.e., a single pump at 6 MGD and two smaller pumps at 3 MGD each) to provide redundancy and the ability to vary flow rates to match actual system needs. Equipping each of the pumps with a variable frequency drive (VFD) allows the BCPSA to vary the pumping rates from the pumps to further fine tune the flow rates and match treatment capacity.

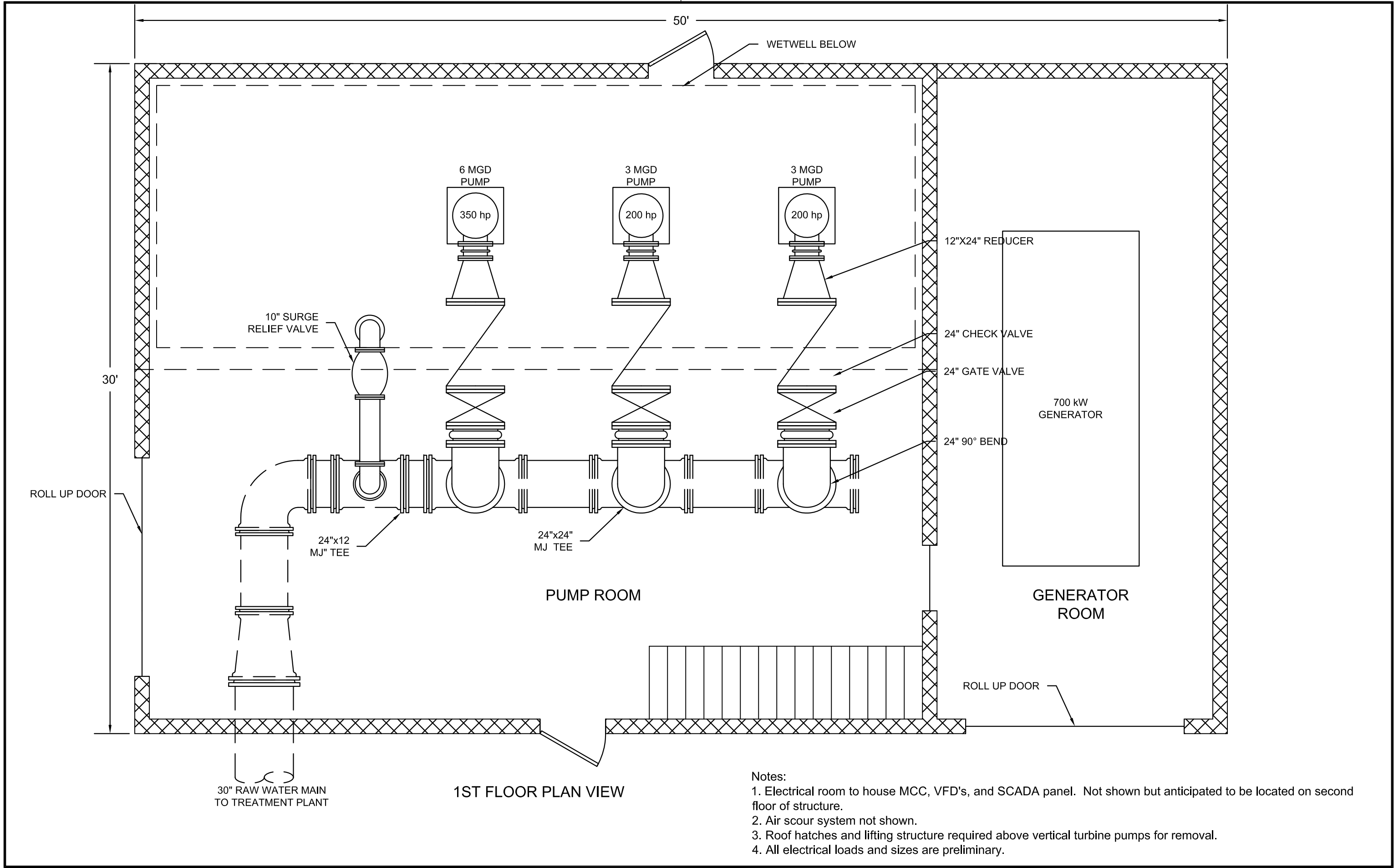
Each pump must be equipped with a check valve and a gate valve for system isolation. A common surge relief valve would be piped on the pump discharge manifold to drain any potential surge flow back to the wetwell. The surge relief valve would be used in combination with VFD's to reduce water hammer in the piping system.

A raw water flow meter is recommended and would likely need to be located in a vault outside of the building so that sufficient straight pipe run is provided upstream and downstream of the meter. This flow meter would communicate to the telemetry system to record and transmit both the flow rate and total volume of water pumped from the lake.

Preliminary Sizing: As stated above, the preliminary sizing of this pump station includes the use of two vertical turbine pumps rated at 3 MGD and a single pump rated at 6 MGD.

Preliminary calculations (see Appendix D) indicate that the larger pump must be capable of 4200 gpm at approximately 275 feet of head. There is approximately 254 feet in elevation difference between the suction water surface and the Camp 24 elevation. A 20-foot tall raw water tank is assumed at Camp 24 to receive the raw water. The preliminary pump selection shows that a Fairbanks Morse vertical turbine, size 18H.2 with 3 impeller stages is a good selection for these conditions. This pump would require a 350 horsepower, 1800 rpm motor and is approximately 85% efficient.

Using the same basic assumptions stated above, preliminary calculations indicate that the smaller pumps should be capable of 2100 gpm at approximately 275 feet of head. The preliminary pump selection for these conditions is a Fairbanks Morse vertical turbine, size 14F.4 with 4 impeller stages. This pump requires a 200 horsepower, 1800 rpm motor and is approximately 85% efficient.





Operation and Maintenance Requirements: Primary operation and maintenance points for vertical turbine pumps are above ground level in the pump building. However, the pump station needs to be designed so that the pumps can be pulled in order to access the impellers, bowls, and shaft, or to replace the pumps if required. The gate and check valves, surge relief valve, and flow measurement should be located above grade in the building for ease of access for maintenance.

Construction Considerations: Construction of this alternative involves construction of a new concrete wetwell to connect to the lake intake system. The wetwell houses each of the three vertical turbine pumps and the motors and discharge pipe are located in a structure constructed over the wetwell. The largest concern during construction is dewatering the area for the wetwell to be constructed. The discharge piping should be carefully restrained against the thrusts generated by the pumping.

The pumps require a minimum of 65 inches of submergence to function properly. The wetwell should be at least 8 feet below the finished floor elevation to accommodate the height of the pumps stages and intake. Due to the low water elevation in Smith Mountain Lake of 787 feet and the headloss through the screens and intake pipe, the bottom of the wetwell is recommended to be at least 778 feet.

The roof of the building needs to have either removable sections or access hatches for the removal of these pumps for maintenance.

2.2 Alternative 2 – Split Case Pumps

General Description: This alternative considers three split case pumps to meet the raw water demands of the proposed SML WTP. In this application, split case pumps would be mounted in a dry pit adjacent to the wet well in order to provide flooded suction to the pumps. The wetwell would be connected to the lake intake system as in the previous alternative. The dry pit must be equal in depth to the wet well. Stairs or a ladder system are needed to access the below ground dry pit.

A structure to house the electrical pump controls, air purge system, generator, telemetry, and access to the dry pit is also considered.

Process Description: The process description for this alternative is the same as Alternative 1.

Preliminary Sizing: Preliminary calculations (see Appendix D) indicate that the larger pump capacity be 4200 gpm at approximately 275 feet of head. The preliminary pump selection is a Fairbanks Morse horizontal split case pump, size 10" 2825C with a 16.5 inch impeller. This pump requires a 400 horsepower, 1785 rpm motor and is approximately 85% efficient.



Preliminary calculations show the smaller pumps should be capable of 2100 gpm at approximately 275 feet of head. The preliminary pump selection is a Fairbanks Morse 6" 2824C horizontal split case pump, with a 16.5625 inch impeller. This pump requires a 250 horsepower, 1785 rpm motor and is approximately 81% efficient.

Operation and Maintenance Requirements: Primary operation and maintenance points for horizontal split case pumps are below ground level in the pump building. The dry pit would likely be considered a confined space with typical Occupational Health and Safety Administration (OSHA) requirements. The gate and check valves would be adjacent to the pumps. The surge relief valve and flow meter would be best located in a vault outside of the dry pit.

A sump pump system would be needed for the dry pit area. The effluent from the sump pump needs disposed of properly to comply with VDEQ regulations. A drainfield system would likely be adequate.

Construction Considerations: Construction of this alternative requires a new wetwell to connect to the lake intake system. A dry pit would be attached to the wet well via three suction pipes that lead to the split case pumps in order to provide flooded suction. There are several construction considerations that need to be addressed for this alternative.

This alternative requires the construction of a large dry pit next to the wet well to house the pumps. The lack of sufficient property for the excavation during dewatering and construction is one construction concern. The structure required for split case pumps is significantly larger than the structure required for the vertical turbine pumps.

The use of a dry pit would require the installation of a sump pump to keep the pit dry. Due to restrictions from VDEQ and the Virginia Department of Conservation and Recreation (DCR), it is likely the effluent from a sump pump cannot be returned to the lake and instead must be pumped to a drainfield for disposal. If a local field cannot be constructed, a potential alternative disposal location is the existing High Point WTP drainfield system.

The construction of a watertight dry pit is an additional construction consideration versus submersible pumps. Since the pumps must be located below the water level of the lake the structure has to be watertight and resist floatation.

3. Pretreatment

Pretreatment of raw water has typically been performed to improve water quality through removal of pathogens, color removal, taste and odor control, prevention of regrowth in the raw water pipeline and treatment processes, and iron and manganese removal. With the EPA requirement for Disinfection By-Product (DBP) reduction, the use of chlorine as a pretreatment oxidant is becoming less common and alternative pretreatment chemicals are now being



used instead. Three chemicals being used as pretreatment alternatives are described in this section. (Sources: EPA's on-line Drinking Water Treatability Database, EPA Guidance Manual for Alternative Disinfectants and Oxidants, 1999; Carus Corporation).

3.1 Alternative 1 – None

General Description: This alternative considers whether pretreatment could be omitted from the process at the SML WTP.

The Smith Mountain Lake Association has maintained a volunteer Lake Water Quality Monitoring Program, in partnership with Ferrum College, for 25 years. The latest annual report issued in 2011 indicated that lake water quality is the best that has been measured in the 25 years that the Water Quality Monitoring Program has made these assessments (Source: January 2012 Smith Mountain Lake Association Newsletter). This is unusual, because typically lakes become nutrient enriched as they age and development increases around them. Runoff from residential and commercial areas and leaching of septic drainfields can all contribute to increased nutrient loads that can degrade water quality in the lake. Furthermore, non-point source pollution from the watershed that feeds the lake can provide a significant input of nutrients into the lake. The increased nutrient enrichment typically decreases raw water quality, both for recreational and public water supply purposes.

Despite the relatively good water quality of Smith Mountain Lake and data that indicates that the lake water quality is staying consistently good, eliminating pretreatment is not recommended as the lake does not have a protected watershed nor a common governing body to enforce water quality protection measures at the local level. Thus, this alternative will not be considered further.

3.2 Alternative 2 – Permanganate Pre-Oxidation

General Description: Potassium permanganate is currently being used at the High Point WTP for pre-oxidation. Although permanganate is a strong oxidant, it is a less effective disinfectant. It is very good at reducing iron and manganese, taste and odor, color, DBP's, and radium. For example, in 1980 AWWA Research Foundation studied the conversion of prechlorination facilities to permanganate oxidation facilities at four conventional WTP's ranging in size from 4.5 to 15 MGD. The study found that Total Tri-halo Methane (TTHM) concentrations were reduced by more than 30% and that taste and odor compounds, iron and manganese, organic and inorganic matter, and algal growth were also reduced. A study conducted in 2000 showed that permanganate applied at the intake of Canyon Lake, California, showed a significant reduction in the amount of TTHM's formed when potassium permanganate is the pre-oxidant (Pre-Oxidation with Potassium Permanganate Control of Disinfection By-Products, Case History Brochure, by Carus Chemical Company, 2001). EPA classifies permanganate as one of the alternative oxidants that can be used for DBP control.



Process Description: Permanganate would be injected into the raw water line at the High Point WTP or prior to the raw water storage tank to help control biofilm growth inside the pipeline and raw water tank. The raw waterline would provide greater than 30 minutes detention time between the High Point WTP and the raw water tank at SML WTP, thus the permanganate would likely be consumed before adding coagulants or other treatment chemicals that could cause potentially colloidal byproducts. The permanganate would be injected in proportion to flow via a flow pacing signal from the raw water flow meter at the pump station. It would also be beneficial to consider using a compound loop control system, whereby the permanganate residual is measured with an appropriate analyzer and both the flow and residual concentration level is used to vary the output of the metering pump. Either sodium permanganate or potassium permanganate could be used, but typically operators prefer the liquid form (sodium permanganate) because it is easier to handle than the dry powder form (potassium permanganate).

Preliminary Sizing: Typical dosages are 1 to 3 mg/L. Actual dosage would be determined by jar testing in accordance with procedures from the chemical supplier. The typical dosage at the High Point WTP has been 0.7 mg/L. This PER considers preliminary sizing of the permanganate facilities using sodium permanganate at a strength of 20% by weight and a dosage rate of 1 mg/L. The metering pumps need to be sized for the raw water flow rate, which may vary depending on the recovery rate of the selected treatment process. The preliminary sizing of permanganate storage tanks is based on average daily flow of approximately 3.0 MGD. Bulk shipments of sodium permanganate come in quantities of approximately 4,000 gallons. At a feed rate of 1 mg/L at 3 MGD average daily flow, a 700-gallon solution tank of premixed sodium permanganate (20% by weight) would be required to provide 60 days of storage. In actuality, the tank would be sized to include the entire contents of a delivery and plus some extra to meet the daily feed requirements for a period of time. At least 5,000 gallons total storage is recommended if sodium permanganate is used, which provides a full delivery load plus about a 60 day supply. A peristaltic metering pump can pump solution directly from the tank or from a day tank to the injection point. However, a day tank provides the operators a convenient location to monitor daily chemical usage and is recommended if the bulk storage tank is placed a considerable distance from the metering pumps. The metering pump feed rate would need to be at least 23 gpd at a 6.0 MGD flow rate. It is recommended that the metering pump be selected to provide some flexibility to increase or decrease the dosage rate to meet actual dosage requirements. If flow pacing is desired, the metering pump must receive a flow signal from the raw water flow meter in order to vary the metering pump output to match actual flowrate in the raw waterline.



Operation and Maintenance Requirements: Permanganate comes in either liquid or solid. Liquid sodium permanganate is easier to operate and maintain than potassium permanganate, which is a crystalline solid that has to be mixed on-site. The solution is purple in color, which can be problematic to maintaining a clean chemical feed area. If overdosed, the process water turns pink.

Safety/Handling Considerations: Although non-combustible, permanganate is classified as a severe oxidant and contact with other oxidants could cause an explosion. Contact with combustible materials, such as rags or paper towels, can also cause auto-ignition; therefore, clean-up procedures recommended by the manufacturer must be followed.

Construction Considerations: Permanganate is compatible with many metals and plastics such as Teflon, polypropylene, HDPE, and EPDM; however, it is incompatible with natural rubber and fibers. In neutral and alkaline solutions, sodium permanganate is not corrosive to carbon steel and 316 stainless steel; however, chloride corrosion of metals may be accelerated when it is in solution. Per OSHA requirements, oxidants such as permanganate must be stored separately from organic chemicals such as polymers and activated carbon.

3.3 Alternative 3 – Chlorine Dioxide Pre-Oxidation

General Description: Chlorine dioxide is a strong oxidant and disinfectant and is effective in the removal of iron and manganese, arsenic, color, and taste and odor compounds. It also aids in the reduction of TTHM and Halo Acetic Acid (HAA5) by oxidizing organic precursors and allowing the primary disinfection point to be moved downstream of the coagulation, flocculation, and settling processes in the conventional water treatment. Chlorine dioxide produces chlorite/chlorate ion byproducts. Chlorite is a regulated contaminant with a maximum contaminant level of 1.0 mg/L and chlorate is likely to be regulated in the future.

Process Description: Chlorine dioxide would be generated at the High Point WTP and added to the 24-inch raw waterline to control biofilm growth and provide adequate time for oxidation of organic matter. The maximum residual disinfectant level (MDRL) for chlorine dioxide is 0.8 mg/L per the D/DBP Rule. If the oxidant demand of the water is greater than about 1.4 mg/L, use of chlorine dioxide can be problematic due to potential formation of chlorite byproducts that can exceed the 1 mg/L MCL.

Preliminary Sizing: Typical dosage of chlorine dioxide ranges from 0.2 mg/L to 2.0 mg/L. An oxidant demand study should be completed to determine the approximate dosage; however, because of potential byproduct formation, dosage should probably not exceed 1.4 mg/L.



Operation and Maintenance Requirements: Chlorine dioxide is a gas which must be generated on-site. Typically, the generation equipment is rented. Small samples of generated solutions (up to 1%) can be safely stored if the solution is protected from light, chilled, and provided with ventilated headspace. Because of the potential to improperly generate excess chlorine, operator training, sampling, and laboratory testing costs could be high. The Stage 1 DBPR requires all nontransient noncommunity and community systems that use chlorine dioxide, regardless of the purpose, (e.g., disinfection, oxidation, or maintenance of a residual) to perform daily monitoring for both chlorine dioxide and for the disinfection byproduct, chlorite.

Safety/Handling Considerations: Chlorine dioxide decomposes in sunlight and could cause production of noxious odors. The gas is explosive at levels greater than 10% in air. It is a strong respiratory irritant.

Construction Considerations: The generation process varies with application. Typically, chlorine dioxide is generated using sodium chlorite solution and gaseous chlorine or hypochlorous acid. Improper generation could cause excess free chlorine to be introduced at the application point and the potential formation of DBP's. New generators use a solid form to minimize this impact, and electrolysis of sodium chlorite could be used for low-dose applications. Chlorine dioxide is corrosive to steel and stainless steel.

3.4 Alternative 4 – Powdered Carbon Addition

General Description: Powdered activated carbon (PAC) is an organic adsorbent that is generally used seasonally or intermittently for TTHM reduction, taste and odor control, and organic reduction. It is a highly porous material with a large surface area to which contaminants may adsorb. It is removed through sedimentation, membrane filtration, or by the filter backwash cycle.

Process Description: A minimum contact time of 15 minutes is required for taste and odor control. PAC should not be combined with coagulants or other chemicals without sufficient contact time with the source water.

Preliminary Sizing: Typical PAC dosages for taste and odor control range between 1 to 20 mg/L, although dosages up to 100 mg/L are not uncommon in some cases.

Operation and Maintenance Requirements: PAC can only be used once, and separation and disposal of the PAC would be required. In conventional processes, the PAC typically is settled in the settling basins and disposed of with the sludge. In membrane processes, the PAC is trapped on the membranes and removed during backwash. PAC can be abrasive to membrane fibers. PAC slurry is prepared by mixing the powder with water, and operation of slurry equipment can be problematic.



Safety/Handling Considerations: PAC is considered stable; however, it should not be combined with chlorine and permanganate. Wet activated carbon removes oxygen from the air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Dust control is required because dust becomes airborne during the slurry process. PAC should be stored separately from other chemicals and hydrocarbons in a building or compartment that is as fire-resistant. Contact with eyes, skin, or clothing should be avoided.

Construction Considerations: A separate well-ventilated, fire-resistant carbon feed and storage room would be required.

4. Solids Removal

Solids removal is one of the most important steps in producing potable water and is necessary to provide water that is aesthetically acceptable and to remove microbiological contaminants that cannot be destroyed by disinfection alone. The SWTR, IESWTR, LT1ESWTR, and LT2ESWTR define treatment technologies and turbidity limits required to demonstrate to regulating agencies that solids have been sufficiently removed from the water. Solids removal is typically achieved for surface water sources by sedimentation followed by conventional sand filtration. With the advancement of membrane filtration technology, more states are allowing direct filtration of surface water with membrane filters, provided the raw water is of sufficient quality. The High Point WTP that currently serves the Lakes Water System for the BCPSA has been utilizing membrane filtration in a direct filter application since its construction in 1999. This has been a successful application of direct filtration in the state of Virginia, primarily due to the relatively good water quality of Smith Mountain Lake. This PER assesses two alternatives for solids removal: 1) conventional filtration and 2) pressurized membrane filtration.

4.1 Alternative 1 – Sedimentation/Sand Filtration

General Description: Conventional sedimentation/sand filtration treatment consists of multiple units for coagulation, flocculation, sedimentation, and gravity sand filtration for solids removal. Conventional treatment has historically been the most widely applied water treatment technology.

Process Description: The first stage of treatment consists of flash mixing with mechanical mixers to disperse a coagulant. Two coagulants typically used in the region are polyaluminum sulfate or polyaluminum chloride due to their relatively good performance in cold weather and lower sludge production than alum. The coagulant encourages destabilization of solids in the raw water, where they become attached to other particles and are removed in subsequent processes.

The next step is flocculation, where the raw water is slowly agitated to encourage coagulation. Coagulation removes a large amount of organic compounds, including some dissolved organic material, and some suspended particles, including inorganic precipitates, such as iron.



The water may still contain pathogens. Because coagulation removes some of the dissolved substances, less chlorine is required to disinfect the water. VDH Waterworks Regulations require a minimum detention time of 30 minutes for flocculation. At least three successive tapered compartments would be provided to prevent short circuiting. Tapering reduces shearing of the particles and maximizes power input.

Sedimentation immediately follows flocculation. Sedimentation allows the heavy settleable solids to be removed. VDH requires a minimum settling time of 4 hours.

After sedimentation, treated water is sent to gravity sand filters for suspended solids removal. Gravity sand filters can be rapid or slow type. Rapid sand filters are typically used because they have fairly high flow rates and require relatively little space to operate. The filters are generally cleaned twice per day with backwashing filters and are put back into operation immediately. The filters typically have an underdrain system with successively smaller layers of gravel, sand, and anthracite.

Waste Disposal: The floors of the basins should slope toward a sump for withdrawal. Sludge collection equipment could be installed to collect the settled solids at the bottom of the sedimentation basin and remove them for further handling and disposal.

Preliminary Sizing: For preliminary sizing, the treatment process is assumed to be 5% higher than plant capacity (i.e., 6.3 MGD) to account for backwash. The backwash could be minimized by utilizing air assisted backwash. Two rapid mix basins (one active and one standby) approximately 290 cubic feet each would be required to provide a 30-second detention time. Two flocculation basins (one active and one standby) approximately 17,500 cubic feet each would be required at the minimum detention time of 30 minutes. Assuming three 12 foot deep compartments would be installed per flocculator, each compartment would be approximately 22 feet by 22 feet and provide about 10 minutes detention time in each. Three sedimentation basins are recommended, each at 50% of the required capacity, so that one can be offline and the remaining two have adequate detention time. VDH requires a minimum detention time of four hours for sedimentation. This equates to 1.05 million gallons of volume at a flowrate of 6.3 MGD, thus, each sedimentation basin should have approximately 525,000 gallons of capacity. This evaluation considers each basin being 40 feet wide by 160 feet long by 13 feet deep with one foot of freeboard. In accordance with VDH regulations, seven high rate gravity sand filters would be required. At a design filter rate of 4 gpm/sf filter area, 156.25 square feet per filter would be required (i.e., 12.5 feet square per filter).

Operation and Maintenance Requirements: Per Section 12VAC5-590-460 of the VDH Waterworks Regulations, two full-time operators would be required while the plant is operating. A Class I operator would be required to be in responsible charge, and at least a Class II operator must be in attendance during the shifts. The other operators in



attendance can be any class. Basins should be designed to be taken out of service for cleaning. Paddles and mixers should be provided with variable speed drives so that the operators can adjust the speeds under varying source water quality. Filters should have local control so that operators can directly observe operational issues that may arise. Controls for varying the backwash flow rate must be provided.

Construction Considerations: The footprint for a conventional plant is typically large. Ideally, the topography of the site would need to slope downhill at about 5 to 10% to allow construction that promotes gravity flow through the flocculators, settling basins, and filters. The site would need careful geotechnical investigation to determine appropriate means to construct the concrete basins so that they don't crack or settle due to poor soil bearing capacity or compaction. The clearwell would have to be either buried below the bottom of the filter floor or else be located lower than the filter effluent valve. The type of filter rate of flow control would have to be determined early in design because it would influence the hydraulics of the plant.

4.2 Alternative 2 – Pressure Membrane Filtration

General Description: For the purposes of compliance with the LT2ESWTR, membrane filtration is defined as a pressure- or vacuum-driven separation process in which particulate matter larger than 1 μm is rejected by an engineered barrier primarily through a size exclusion mechanism and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test (40 CFR 141.2). The state of Virginia recognizes membrane filtration as an acceptable alternative filtration technology. Under the guidelines of VDH Working Memo 880 (WM 880), conventional process approval procedures for microfiltration and ultrafiltration, hollow fiber, positive pressure driven membrane filtration technology may be followed (§12 VAC 5-590-200). Furthermore, a provisional waterworks operation permit is not required (§12 VAC 5-590-290) for approved membrane filtration equipment when it can be shown that source water quality is similar to that being successfully treated with the technology.

Process Description: Membrane filtration treatment is typically performed either with pressurized membrane modules or immersed membrane fibers under vacuum. The immersed membranes are typically used in situations where the raw water quality is poor and coagulation/flocculation/settling occurs first. They are also more typically used in facilities larger than 10.0 MGD. This PER considers use of pressurized membrane filters for the solids removal. The system generally consists of feed pumps that draw water from a raw water storage tank. The water is pumped through appropriately sized strainers prior to passing into a rack of multiple membrane modules where filtration occurs. The filtered water then flows into a clearwell/storage tank for disinfectant contact time and pumping storage for finished water booster pumps.



Waste Disposal: Two waste streams would be generated by the facility, i.e., the backwash waste and the clean-in-place (CIP) and chemically enhanced backwash (CEB) waste. The backwash waste would be generated every time the membrane units backwashed, typically once per 20 to 60 minutes depending on the raw water quality. Air scour is used in conjunction with backwash to provide agitation and cleaning of the membrane modules. Backwash waste includes the water and solids scoured from the membranes. Occasionally, the backwash would be supplemented with a bleach solution to provide mild cleaning of the membranes (i.e. chemically enhanced backwash or CEB). When the membranes require more thorough chemical cleaning, the CIP system is used. The CIP system would be used to chemically clean the membranes using hot water and a sequence of three chemicals, include a mild (2%) citric acid solution, a mild (1%) sodium hydroxide caustic solution, and a 1000 ppm sodium hypochlorite solution. The membrane manufacturer typically provides a system to prepare and pump the CIP cleaning solutions to the membrane racks. After cleaning, the solution waste is captured for reuse in the other membrane racks until such time that all racks have been cleaned or the CIP solution is too fouled. The CIP waste typically self-neutralizes to a pH of about 7 since it consists of both an acid and caustic cycle. However, when strict control is needed, a neutralizing system is often provided.

Preliminary Sizing: Membrane filtration equipment is typically offered in either custom-designed systems or pre-engineered systems. Custom-designed equipment is typical for facilities 4 MGD and greater. For this PER, four (three plus one backup) custom-designed module racks by Pall Corporation were selected for evaluation, each with a 2-MGD nominal capacity using 88 modules per rack. Having multiple racks would provide redundancy of filtration units as required by WM 880, should one be off-line for maintenance or cleaning. The flux rate considered for this PER is 32.4 GFD average flux with all racks on line and 43.2 average flux with three racks on line at 20 °C. The design flux rate and operating TMP would be determined prior to final design and bidding.

The approximate skid dimensions for the most compact arrangement are 6 feet by 26 feet by 10 feet high. Each membrane filtration skid includes polyvinylidene fluoride (PVDF) membrane media modules and a valve rack to distribute flow as required during filtration, reverse flushing (i.e. backwash), CIP processes, and for the low pressure air scour. Membrane suppliers will also typically supply a compressed air system for the air scour backwash. In addition, feed pumps, reverse flush pumps, appropriately sized strainers, and miscellaneous tanks and pumps used for neutralizing and distributing cleaning solutions used during the CIP process are typical auxiliary equipment required for a complete membrane treatment system.



Operation and Maintenance Requirements: A Class IV or higher operator would need to be in attendance each day of operation for sufficient time to perform necessary monitoring and process evaluation and to make required process adjustments (VDH Working Memo 880). For the SML WTP, an operator would probably be required for 4 to 8 hours per day to perform daily, weekly, and monthly tasks as required.

The system undergoes an automatic 5-minute integrity test (IT) based on a predetermined interval (runtime hours). This test checks for broken fibers in the modules. During the IT, interruption of water production occurs. The modules undergo a programmed regimen for flux maintenance. The flux maintenance cycle recovers the trans-membrane pressure (TMP) and removes any solids fouling the surface. Typically, the flux maintenance cycle interrupts water production for 2 minutes every 20 minutes. The feed strainer is a self-cleaning type that requires a backwash at regular intervals to avoid clogging. This is typically triggered by a timer with a differential pressure switch providing an override function.

The membrane filter system PLC can be set to automatically control the treatment plant. There are two modes of automatic operation, including constant level or constant flow. In constant level mode, the unit would operate as often as needed to maintain the storage tank level at an operator-selected setpoint. On constant flow operation, the unit would operate at a constant flow until the shutoff setpoints (i.e. tank levels) are reached. In either mode, the operator may start and stop the operation as needed.

Construction Considerations: A climate-controlled building would house the membrane filtration equipment. A pre-engineered metal building with slab-on-grade construction can often be utilized for membrane treatment facilities and offers lower construction cost and duration than other building types. However, the total life cycle cost should also be considered since metal buildings can require more interior maintenance than other types in water treatment applications. The main building would house the membrane filtration units, piping, and auxiliary systems such as the compressed air and CIP systems. Additional rooms would be constructed within the building shell to provide designated spaces for laboratory, restroom, mechanical/electrical, and chemical feed facilities. These rooms could be constructed of concrete masonry units and would include HVAC systems designed for the specific usage requirements of the room. The minimum footprint feasible for housing the equipment and facilities would be 80 feet by 140 feet.

5. Backwash Treatment

It is anticipated for conventional treatment that approximately 5% to 10% of the treatment plant capacity would be wasted as backwash water each day and for membrane treatment, the backwash waste would range from 2% to 5%. For a plant capacity of 6.0 MGD, the backwash waste would thus range from 0.30 MGD to 0.60 MGD for conventional and 0.12 MGD to 0.30 MGD for



membrane filtration. This waste is considered an industrial waste and would require treatment prior to disposal. Ultimate disposal options for the backwash waste are discussed in the next section. In order to minimize the volume of the waste requiring disposal, backwash treatment is often incorporated into treatment facilities. This PER assesses two alternatives for backwash treatment: 1) pressure membrane filtration and 2) high rate clarification.

5.1 Alternative 1 – Pressure Membrane Filtration

General Description: The High Point WTP has been utilizing membrane filtration for backwash treatment since 2003. The treated water from the “backwash recovery” membrane system is blended with the raw water and the backwash from these membranes is disposed of via ground infiltration.

Process Description: The backwash water from the main treatment process would be equalized and stored in a below grade concrete tank, i.e. backwash holding tank. The backwash holding tank would feed a submersible pump station that is controlled by the plant SCADA system to deliver the backwash water to a membrane filtration skid for treatment. The primary process control measurement would be based on the level of water in the backwash holding tank. The backwash recovery membrane system would include an on-board feed tank, skid mounted pumps, all required valves and piping to control the treatment process.

Following filtration, the treated water would be delivered to the raw water tank for blending with the influent from the raw water pump station.

Waste Disposal: The backwash wastes from the backwash recovery membrane system would be equalized and disposed of via one of the alternatives discussed in the next section.

Preliminary Sizing: For preliminary sizing, the treatment process is assumed to generate 5% of its rated capacity in backwash waste, which is 0.3 MGD. At a minimum, the backwash volume required to backwash one membrane or gravity filter would be required for the storage tank sizing. This tank would also need to be appropriately sized for equalization and/or neutralization of any backwash waste that has been pH adjusted. This PER will consider a backwash tank volume of 30,000 gallons for cost purposes, which equates to approximately 10% of the daily backwash waste volume. This volume would be refined during final design of the facility. Submersible pumps would be selected that are sized for the average daily flow with at least a 1.5 peak factor. Thus, the capacity of the pumps would be approximately 350 gpm and would only require enough head to overcome the static elevation difference between the low level in the backwash holding tank to the membrane filter skid, plus a 5 psi minimum pressure at the face of the membrane filter piping. The total discharge head is conservatively estimated at 30 feet (12 feet for the minimum pressure for the membrane skid and 18 feet for the difference between low water elevation in the tank and inlet valve



elevation plus minor pipe losses). A pre-engineered membrane treatment system to treat 0.3 MGD would be selected for the membrane system. This PER considers relocating both of the existing Pall AP-4 units at the High Point WTP for repurposing as membrane recovery skids. These systems each have 28 modules and have a nominal rated capacity of 0.5 MGD each at an average flux rate of 40 gfd. At a design flux rate of 24 gfd, a single Pall AP-4 system with 28 modules could treat 0.3 MGD, with 4 hours of downtime for backwashing/cleaning each day. With a conservative flux rate, it is likely that the membrane system could have up to 90% recovery of the backwash waste, thus only approximately 30,000 gallons per day would require disposal.

Operation and Maintenance Requirements: Operations and maintenance of the pressurized membrane system would be the same as described in Section 4.2 above, except that the frequency of chemical cleaning is typically increased. The BCPSA typically cleans their current backwash recovery skid at High Point twice as frequently as the main process skids. Since the BCPSA is already familiar with the operation of membrane systems, no special training or additional staff members with specialized experience would be anticipated. Using this alternative of backwash recovery would lend itself well if pressurized membrane filtration is used as the main treatment technology since the operators would have common spare parts and membrane modules could be moved from the main process to the backwash process as they became aged and/or had broken fibers.

Construction Considerations: The building housing the main treatment process would be suitable to hold the membrane filters. Ideally, the backwash holding tank and submersible feed pumps could be located nearby to minimize friction losses in the piping.

5.2 Alternative 2 - High Rate Clarification

General Description: This alternative would utilize high rate clarifiers, i.e. inclined plate clarifiers, to treat backwash waste and separate the liquid from the solids in the backwash. A coagulant would be used to flocculate the solids prior to the inclined plate settlers.

Process Description: Similar to the previous alternative, the backwash water from the main treatment process would be equalized and stored in a below grade concrete tank, i.e. backwash holding tank. The backwash holding tank would feed a submersible pump station that is controlled by the plant SCADA system to deliver the backwash water to the inclined plate settlers for treatment. The primary process control measurement would be based on the level of water in the backwash holding tank. The inclined plate settlers would be fabricated stainless steel and located above grade either inside or outside the main treatment facility. Locating them inside would avoid freezing issues, but would increase humidity in the building and require taller ceilings to access the equipment. Locating them outside is recommended, with heat tracing/insulation of the above grade pipes that connect the equipment.



Two settlers are proposed, each with a capacity of 360 gpm. A coagulant would be dosed in the piping between the submersible pumps and the inlet to the inclined plate settler units. Water would enter into a flash mix/flocculation tank on each unit and then into the settling chamber. Inclined plates would increase the efficiency of settling and allow higher loading rates than a conventional gravity settler.

Following filtration, the treated water would be pumped or flow by gravity to the raw water tank for blending with the influent from the raw water pump station.

Waste Disposal: The underdrain wastes from the settlers would be disposed of via one of the alternatives discussed in the next section.

Preliminary Sizing: For preliminary sizing, the same backwash volumes, backwash tank size, and pump sizes are considered as in the previous alternative. An inclined plate settler manufacturer was contacted for budgetary pricing and sizing recommendations. They recommended two settlers, each with an inclined plate settling area of 1076 square feet. This would provide a settling rate of 0.33 gpm/square foot at the design flow rate of 360 gpm through one unit. A coagulant (polyaluminum chloride) is assumed at a dosage rate of 20 mg/L for preliminary sizing and cost estimates.

Operation and Maintenance Requirements: Operations and maintenance of the inclined plate settler would be similar to the operation of flocculation and settling facilities at a conventional treatment plant. Operators would perform jar testing to determine optimum dosage rates. The metering pumps would need to be adjusted as required to maintain efficient settling. Daily checks would include recording coagulant usage, monitoring metering pump output, and performing settling tests on the flocculated feed to determine if efficient settling is being achieved. The solids hoppers in the settlers would need to be emptied. This could be performed manually or automated through the use of an actuated valve. Maintenance tasks would include metering pump servicing and repair, and greasing or oiling the flash mix and flocculator drive motors. A food safe grease or oil would be required since the effluent would be returned to the raw water tank.

Construction Considerations: The inclined plate settlers would need to be constructed on a suitable concrete pad. The manufacturer proposed construction of stainless steel, so they could be placed outside without a shelter. However, the piping to and from the settlers would likely need to be insulated and heat traced to avoid freezing issues in the winter. The footprint of each settler is approximately 23 feet long and 8 feet wide. A minimum space of 6 feet between each unit and 5 feet all around is recommended for access and maintenance, thus the total footprint would likely be around 1,024 feet square.



6. Backwash/Solids Handling and Disposal

The alternatives considered within this section are solely for the purpose of treating the backwash waste generated by the selected treatment process. Any sanitary sewer generated on the site would be directed to the existing wastewater pump station on the Camp 24 site (Pump Station #4) and handled separately from the backwash waste. This would avoid the stringent treatment and discharge requirements that occur when handling sanitary sewer.

6.1 Alternative 1 – Pump to Moneta WWTP via Existing Pump Station #4

General Description: For this alternative, it will be assumed that a backwash treatment system is used to minimize the volume of water to be pumped to and disposed of at the Moneta WWTP. The amount of water to be disposed after the backwash treatment system is anticipated to be between 1 to 2% of the plant rating (i.e. a 98 to 99% recovery rate). For the 6 MGD facility, the normal daily backwash and disposal amount would be between 60,000 to 120,000 gpd depending on the actual recovery rate.

The backwash water could flow by gravity to the existing wastewater pump station located at the Camp 24 site. This station was constructed when the Moneta WWTP was constructed for the disposal of wastewater from the Camp 24 facility. The Camp 24 Facility has been demolished, thus the station is not currently in use. This pump station was designated Pump Station #4 in the Moneta Regional Sewer System PER prepared by ACS Design. The pump station is rated for 80 gpm or an average daily flow of 115,200 gpd operated continuously with no peak factor. A 4-inch force main connects this pump station to the gravity sewer system along Route 655.

Preliminary Sizing: If a 99% recovery can be achieved from the treatment process, it appears the existing pump station capacity would be capable of handling the backwash water. A holding/equalization tank would be needed to equalize the flows to the on-site pump station because the backwash flow rate would be significantly higher than the 80 gpm pump limit.

If only a 98% recovery rate is possible from the treatment process, the pumps in this alternative would need to be replaced to increase the pumping rate to approximately 160 gpm.

For the equalization/holding tank, a 10,000 gallon precast septic tank with an HDPE liner is selected for cost estimating purposes. An HDPE liner is recommended in order to provide resistance to corrosion that may occur from the acidic chemicals used in the backwash treatment system (i.e. acid for the CIP process on the membrane, or polyaluminum chloride for the inclined plate setter). The actual sizing of this tank will be based on the selected backwash treatment system as each of the backwash systems evaluated have different requirements.



Operation and Maintenance Requirements: The BCPSA already owns and operates Pump Station #4, however it has been inactive since the Moneta Adult Detention Facility (i.e. Camp 24) was shut-down in 2011. Thus, the requirements for operation and maintenance of that station will be similar to what they were prior to the closing of Camp 24, with the exception that the majority of the waste would be backwash waste versus sanitary sewer.

The holding/equalization tank would require periodic inspection and maintenance on an annual basis. It is anticipated that a non-mechanical flow control valve would be used to set the flow rate from the holding tank, similar to inlet control devices that are used to control flow into storm sewers. This valve would require periodic maintenance and should be designed to be removable from holding/equalization without requiring entrance into the tank.

Construction Considerations: There are no significant construction considerations for this alternative other than to ensure the holding/equalization tank and piping provides gravity flow to the existing Pump Station #4. This alternative requires the use of recovery equipment to ensure the backwash is 1% or less of the total design flow. One option for providing this equipment is the reuse of the Pall AP-4 skids that are currently at High Point. Reusing the AP-4 skids would require dismantling them at High Point and reconnecting them at the new plant.

6.2 Alternative 2 – Infiltration Basins

General Description: The High Point WTP currently disposes of backwash water via infiltration basins that are permitted by EPA under the Underground Injection Control (UIC) Program (40 CFR 144-147). This alternative explores the same backwash disposal method for the proposed SML WTP and assumes that backwash recovery would be utilized to minimize the volume requiring disposal via ground infiltration.

Process Description: Following backwash recovery, a flow equalization tank with a hydraulic flow splitter would direct the backwash water to at least four shallow infiltration basins. The infiltration basins would have similar construction to those at the High Point WTP, although would cover a larger surface area. Four would be provided to allow one to be removed from service for maintenance activities with the remaining three having adequate capacity to treat design flow.

Preliminary Sizing: The 2003 WW Associates study assumed an infiltration rate of 65 minutes/inch for the clay loam soils that cover much of the site. Field observation of the site after recent demolition activities indicate that the area being considered for the water treatment plant site is dominated by sandy loam soils (Cecil series soils). These soils would likely exhibit higher infiltration rates than 65 minutes/inch. However, for a preliminary design, a conservative infiltration rate of 65 minutes per inch (i.e. 0.9 inches per hour) is assumed, with each basin sized for 1/3 of the daily backwash volume of 120,000 gpd following backwash treatment.



This would require each infiltration basin to be approximately 3000 square feet. Assuming the infiltration basins are square and are approximately 3 feet deep with 4:1 sideslopes, the dimension per basin would be approximately 80 feet long and 80 feet wide.

Operation and Maintenance Requirements: The operations and maintenance of the infiltration galleries would be fairly minimal. The operation would need to be observed weekly to ensure that the water flowing to the galleries is not ponding excessively, indicating potential plugging or blinding of the soils. The BCPSA would need to obtain and maintain a valid UIC permit from the EPA for this system.

Construction Considerations: Care would need to be taken during the construction of the infiltration basins to avoid compaction or disturbance of the soils in the infiltration basins.

6.3 Alternative 3 – VPDES Discharge

General Description: An alternative to pumping the wastewater to the existing Moneta WWTP is to treat the backwash water onsite and then dispose of the treated effluent through a VPDES discharge. The purpose of using a backwash treatment system is to minimize the amount of backwash waste that would be pumped to the Moneta WWTP and to produce sufficiently good quality water to blend with the raw water pumped from the intake pump station. With a direct discharge alternative, a backwash treatment system wouldn't be required, thus the treatment process would need to be sized to handle the normal backwash waste flow from the filtration process, assumed to be up to 5% of the rated capacity, or 300,000 gpd.

The Wastewater Collection, Conveyance, and Treatment PER prepared by WW Associates in 2003, evaluated placing a 300,000 gpd sanitary sewage treatment plant at the Camp 24 site. Four potential discharge sites were evaluated in that study, including discharging to an unnamed tributary of Mattox Creek located on the Camp 24 site. This tributary was used as the discharge point for the former Moneta Adult Detention Facility sewage treatment plant (permitted capacity of 21,000 gpd). The WW Associates study ruled out this tributary as a suitable discharge location because DEQ considers it intermittent and any treatment plant discharge would need to be high quality effluent that can sustain aquatic life in 100% effluent flow. The study recommended discharging to Goose Creek via an effluent pump station and force main. The VPDES discharge alternative for backwash waste considers discharging to the location on Goose Creek identified in the WW Associates study, with anticipated effluent limits of 30 mg/L monthly average TSS and 60 mg/L max daily TSS and pH limits of 6.5 to 8.5. Metals and toxics monitoring will also likely be required.



In the case of backwash discharge waste, the main pollutants being added to the waste will be organic and inorganic solids removed from the filters, but there will also be chlorine present that would need to be removed prior to discharge. Either sodium bisulfite or sulfur dioxide could be used for this purpose.

Process Description: A solids separation device such as a clarifier could be used if a small footprint was desired. However, the Camp 24 site has adequate space to construct clay or geomembrane lined earthen ponds that could be used as settling ponds prior to pumping to Goose Creek. Using settling ponds is a relatively inexpensive way to reduce the amount of solids that are discharged and typically provides some reduction in the amount of total residual chlorine. At least two ponds should be considered so that one can be removed from service for maintenance operations. It is anticipated that the suspended solids in the backwash water will be fairly low density with poor settleability characteristics since they would primarily consist of algae and similar "light" organic material due to the intake location in Smith Mountain Lake. Thus, a settling aid or coagulant may be required to provide gravity settling at a suitable rate. This could be added at a flow splitter box equipped with a baffle to provide a turbulent zone to disperse the coagulant.

The effluent from the settling ponds would then be pumped to Goose Creek. The solids from the settling ponds would need to be properly removed and handled. It is anticipated that one pond would be drained at a time and the solids pumped and hauled to the Moneta WWTP where they would be further dewatered before disposal at a landfill.

Preliminary Sizing: Sizing the settling ponds needs to consider several factors, including providing volume for the accumulated solids, providing adequate settling time and surface area to achieve effluent TSS limits, and providing adequate turnover or management to avoid algae growth that can cause effluent TSS violations. For a preliminary design, a fairly conservative surface overflow rate of about 5 gallons/day per square foot is used for each pond at 300,000 gpd average flow, and two ponds are assumed. Thus, each pond would have a surface area of 60,000 square feet, or approximately 1.4 acres. The ponds would have an operating water depth of approximately 5 feet and one foot of freeboard would be provided, thus the overall basin depth would be about 6 feet.

The effluent pumps would be a duplex submersible pump station sized for approximately 420 gpm per pump and the effluent line will be sized at 10", generally following the alignment to Goose Creek as identified in the WW Associates study.



Operation and Maintenance Requirements: This alternative will have similar maintenance requirements for the pump station as described in Alternative 1. This alternative will require daily sampling and monitoring of the effluent to ensure it is meeting limits. The settling ponds would likely require chemical addition to the backwash water and a licensed wastewater operator. The BCPSA would need to obtain and maintain a valid NPDES permit for any discharging system.

Construction Considerations: This alternative would require a great deal more space for settling ponds than the other alternatives.

7. Post Treatment

Post treatment processes considered in this PER are for purposes of removing Total Organic Carbon (TOC). TOC has been identified as a precursor to disinfection byproduct (DBP) formation and can also indicate the presence of taste and odor compounds in the water. Bedford County PSA customers and WVWA customers in Franklin County have on occasion reported taste and odor problems with the water. These taste/odor complaints have neither seemed to be a frequent or long lasting event in the past.

The 1997 Final Water Quality Summary prepared during development of the original High Point plant suggested either granular activated carbon (GAC) or nanofiltration be considered after the membrane filters for TOC removal at a goal of 30% reduction. At the time of the 1997 report and when the High Point treatment plant was being designed, there was uncertainty of what the Stage 1 Disinfectants and Disinfection Byproduct Rule (DBPR) would require.

Currently, the Stage 1 DBPR requires that conventional treatment facilities must achieve certain TOC removal rates based on the influent alkalinity and TOC levels, unless one of several alternative criteria are met. These removal goals are as follows:

Source Water TOC (mg/L)	Source Water Alkalinity, mg/L as CaCO ₃		
	0-60	> 60-120	> 120
> 2.0 to 4.0	35.0%	25.0%	15.0%
> 4.0 to 8.0	45.0%	35.0%	25.0%
> 8.0	50.0%	40.0%	30.0%

¹Systems meeting at least one of the alternative compliance criteria in the rule are not required to meet the removals in this table.

²Systems practicing softening must meet the TOC removal requirements in the last column to the right

If conventional filtration is used for the solids removal process at the SML WTP, the TOC removal goals would range from 25% removal to 40% removal as the TOC varies seasonally and has been measured at levels around 2.0 mg/L to levels greater than 8 mg/L and the raw water alkalinity is typically around 80 mg/L. Three alternatives are considered for post treatment for TOC removal in this report.



7.1 Alternative 1 – No Post Treatment

General Description: Treatment for removal of TOC's is not required by regulation if the current practice of direct membrane filtration as the treatment process is utilized for the proposed SML WTP. Furthermore, there may be a certain degree of TOC removal by the pretreatment processes that have been considered, such as pre-oxidation with permanganate or chlorine dioxide. Studies have also shown that direct coagulation ahead of the membrane filters can remove some TOC. The BCPSA produces excellent quality water with the High Point Treatment plant and have been able to maintain compliance with the HAA5 and TTHM limits set in the Stage 1 DBPR rule, though they have had to practice flushing of their waterlines in some areas of the Smith Mountain Lake Central Water System. This alternative considers that the current practices are adequate now and for the immediate future and defers consideration of treatment for future regulated contaminants until such time that they are regulated.

7.2 Alternative 2 – Granular Activated Carbon Filtration

General Description: This alternative considers adding granular activated carbon (GAC) filtration as a sidestream treatment process to remove TOC to the target level of 30% reduction. The typical means of TOC removal by GAC filtration is through adsorption. Adsorption is a physical/chemical process that accumulates contaminants at the interface between liquid and solids phases. Activated carbon is a highly porous material that provides a large surface area to which contaminants may adsorb.

The GAC system could be configured as a pressurized or gravity down-flow fixed bed with multiple absorbers operated in parallel. For a parallel configuration, each unit would receive the same flow and contaminant loading. Multiple contactors are typically operated in a staggered mode so that each contactor is at a different stage of carbon depletion. Only the blended flow from the GAC units and filtration process would need to meet the treatment goal.

Process Description: Filtered water would be fed to the GAC filters from the filtered water main. A hydraulic blending valve would be used to set the proportion of water that is bypassed versus the proportion flowing through the GAC filters. The flow would enter the top of the filters and flow down through the GAC bed to the collection manifold on the bottom. Since filtration would occur prior the GAC filters, it is unlikely that suspended solids would accumulate enough to significantly increase the pressure drop through the filters. However, the filters would be configured to backwash on occasion to remove any fine solids, as well as "agitate" the GAC filter bed and expose new adsorption surfaces on the media.



After passing through the GAC filter(s), the water would blend with the filtered water and then be disinfected prior to the clearwell.

Preliminary Sizing: The primary factors in determining the required GAC filter dimensions and volume are design flow rate and removal rate, breakthrough time, empty bed contact time (EBCT), and hydraulic loading rate. For this PER, the following design assumptions are made:

The design flow rate is estimated at 2 MGD or 33% of plant flow. The breakthrough time is the time when the concentration of DOC in the effluent of the GAC unit exceeds the treatment requirement, after which the GAC must be replaced or regenerated. The average breakthrough time, and consequently the GAC media replacement frequency, is estimated at one year for this PER. The EBCT is the empty bed volume divided by the flow rate. Longer EBCTs can be achieved by increasing the bed volume or reducing the flow rate through the filter. The EBCT and the design flow rate define the amount of carbon to be contained in the adsorption units. Delaying breakthrough with a longer EBCT reduces the rate of carbon depletion. Typical EBCTs for water treatment applications range between 7 to 30 minutes. Two GAC filter manufacturers were contacted for a budget proposal for the equipment and recommendations. One manufacturer proposed an EBCT of 6.5 minutes and the other suggested 10 minutes. This should be confirmed, but the more conservative assumption of a 10 minute EBCT is assumed for the PER. This would require 1860 cubic feet of granular activated carbon media. The manufacturer suggested a loading rate of 4 gpm/square foot, provided by three 12-foot diameter by 23 feet tall units (17,000 gallons capacity each). A backwash would be performed every several weeks to redistribute the media to eliminate channeling and expose additional carbon surface area.

Operation and Maintenance Requirements: The depleted carbon must either be regenerated or replaced once it is spent and breakthrough occurs. Regeneration requires specialized equipment to remove, dewater, and then thermally regenerate the carbon. This is typically only done at larger facilities that can afford to operate their own regeneration equipment. It is assumed that the spent carbon at this facility would be routinely replaced by an outside firm on a contract basis. Operating requirements include close monitoring of the carbon bed depth and breakthrough and controlling flow rate and biological activity. Backwashing may be required occasionally, although this is less likely with the filters upstream.

Safety/Handling Considerations: Spent GAC is considered a hazardous waste and must be handled or disposed properly. GAC should not be stored in the same area as oxidizers.

Construction Considerations: Due to the height of the carbon filters and special handling considerations of carbon, a separate building or a separate "wing" of the main treatment facility may be beneficial. A



separate building is assumed for purposes of estimating costs in this PER. Adequate space needs to be provided for access to the drain and fill ports on the units for carbon replacement. The tanks can be open top concrete with filter underdrains and piping similar to conventional rapid sand filters, or be enclosed steel pressure tanks. It would likely make more sense to use the gravity flow concrete filters if a conventional treatment process is employed and the steel pressurized tanks if a membrane process is utilized.

7.3 Alternative 3 – Ion Exchange

General Description: Ion exchange using anionic exchange media is a recent development in treatment technologies for TOC removal. This technology can be employed in front of the filtration process if an upflow fluidized media bed is utilized and the ion exchange media is designed for this purpose. It can also be utilized after the filtration process in a downflow contactor type arrangement, similar to the GAC filters discussed in the prior alternative. This evaluation assumes a 60% removal efficiency. Once the anion exchange media is spent, it is regenerated on site using a brine solution similar to a water softener. This alternative evaluation considers pressurized anion exchange filters operated in parallel after the filtration process.

Process Description: During normal operation, water would enter the top of the pressurized vessel through a pipe with distribution laterals and orifices, which distributes the flow evenly over the surface of the exchanger bed. The treated water is drawn off by collector piping at the bottom. The vessel would be in service until the ion exchange resin is spent. At this point, the media would be backwashed and then regenerated. Brine would then be pumped to the reactor vessel for the regeneration process, which allows the media to soak in the brine solution for a period of time. After the brine soak is completed, the brine is drained and the media bed is rinsed for a period of time in order to remove all residual brine, at which point the vessel is returned to service. Brine solution for the resin regeneration vessel would be prepared in the brink tank. Clean water and salt would be added directly to the brine tank.

Waste generated would be backwash waste, brine, and a final rinse (filter to waste). The combined residuals, approximately 2,500 gallons per million gallons treated, would be typically directed to the sanitary sewer. Regeneration among the vessels would be staggered. A regeneration event would contain about 3,400 gallons of backwash water (fresh water), 5,200 gallons of diluted brine waste containing 3,400 pounds of salt, and a final rinse waste containing some salinity.

Preliminary Sizing: A manufacturer of ion exchange equipment provided a preliminary technical proposal for this project. Based on 6-MGD capacity, they recommended five 12 foot diameter 13 feet tall ion exchange vessels would be required with one vessel out of service for regeneration (i.e. a 4+1 configuration). In further discussion, they



recommended 3-MGD capacity for this evaluation using three 12 foot x 13 foot tall diameter vessels, since we are targeting 30% removal. Each vessel would be capable of providing up to 930 gpm of treated water and would be rated 75 psi working pressure. With all vessels in service, the flow to each vessel would be 840 gpm. Anion exchange resin depth would be 3 feet. Each vessel would include an inlet distributor, brine distributor, and chemical cleaning and effluent collection assemblies. Included with the system would be electrically actuated wafer style butterfly valves, a PLC control panel, a 30-ton capacity bulk salt storage and brine maker system, two brine pumps, five vessel effluent batch control magnetic flow meters, a brine line magnetic flow meter, and two 50-hp booster pumps from the filtered water effluent header through the ion exchange system.

Operation and Maintenance Requirements: The ion exchange resin would have an expected life of about 20 years. At continuous chlorination levels above 1 mg/L, the anticipated life would be shortened. Approximately 440 pounds of sodium chloride per million gallons would be required for regeneration of the ion exchange resin. Based on operating 24 hours per day at 3MGD, the sodium chloride salt consumption would be 10 tons per month. Since salt consumption is proportional to the amount of DOC removed, seasonal adjustments may be required.

The pressure drop across the ion exchange system is approximately 5-7 psig. Pumping systems are generally sized for 20 psig. The 30 HP pumps would require about 12 kW of energy for the anticipated pump conditions. Thus, at continuous operation approximately 300 kWh would be used each day. Other than the power required to pump water through the vessels, the system requires minimal energy consumption since there very few moving parts. The only operating motors are for supply pumps for brine. The pumps would be similar to chemical feed pumps and run off of fractional horsepower motors. The control panel would run continuously, requiring 20 amps and 110 volts.

Safety/Handling Considerations: This system does not have any special safety or handling considerations.

Construction Considerations: Because of their size and access requirements, it would be advisable to locate the ion exchange system in a separate building or wing of the main treatment facility. Because vessels are tall and heavy, an adequate foundation would be required with concrete subfill. The building would be designed so that vessels could be removed for draining, cleaning, sandblasting, and recoating every 10 to 20 years. Overhead clearance would be required for loading and/or replacing media. Vessels would be provided a finish coat prior to placing into service.



8. Finished Water Pumping and Clearwell

8.1 Clearwell

General Description: The clearwell stores finished water at the treatment plant prior to pumping to the distribution system. The clearwell acts as storage to allow water production and pumping at different rates, provides a wetwell to feed the finished water pumps, and provides contact time to allow adequate disinfection after the addition of chlorine.

Preliminary Sizing: WM 880 requires 30 minutes of chlorine contact time to be achieved with post membrane disinfection. It also requires 0.5 log removal of *Giardia* after membrane filtration. Therefore, the facilities would be designed to provide at least 30 minutes of post membrane filtration contact time and adequate CT for achieving a 0.5 log *Giardia* reduction and 4.0 log virus reduction. CT (minutes•mg/L) is defined as the product of residual disinfectant concentration (C) in mg/L and disinfectant contact time (T) in minutes.

The clearwell would typically be rectangular or circular with internal baffling to prevent short-circuiting and increase plug flow characteristics. Rectangular basins allow maximum use of baffling. The clearwell would be designed with baffled compartments to provide a serpentine flow pattern. The baffles and inlet and outlet piping would be designed to achieve at least an “superior” baffling factor of 0.7 in accordance with VDH Waterworks Regulations. Volume would be adequately sized to minimize cycling of the finished water pumps. The clearwell would also include a drain, an overflow, a vent, an observation port, and at least one foot of freeboard to comply with the Virginia Waterworks Regulations. Given a 0.7 baffling factor, a disinfection dosage of 1.0 mg/L, and pH = 8.5 S.U. at low temperature of 0.5 degrees C (all conditions assumed a conservative worst case), the clearwell would require a minimum volume of approximately 366,000 gallons. A 76,000 gallon regular tank is selected for this evaluation, with 12 baffled compartments and approximately 40,000 gallons per compartment. The recommended low level setting would provide a minimum volume of 381,000 gallons and the high level setting would provide about 380,000 gallons. At 4,200 gpm, the low level would provide 91 minutes of detention time. The working volume of 95,000 gallons would provide approximately 89 minutes of drawdown time at a pumping rate of 4,200 gpm and a fill rate of 3,125 gpm (assuming one membrane filter is off-line for backwash).

Construction Considerations: Typically at conventional treatment facilities, the clearwell is a cast-in-place concrete tank below the floor of the building. This arrangement can increase project cost and time because the clearwell must be constructed prior to the rest of the facility and the excavation can be considerable. In recent years, it has become more common to construct an exterior tank, located either above grade or partially buried, that serves as the clearwell. If possible, the clearwell elevation should set so that the low level elevation of the tank (i.e. the low



range of the working volume) provides flooded suction to the finished water pumps. This PER assumes that a partially buried, precast, post-tensioned (AWWA D115) rectangular tank is used.

8.2 Finished Water Pumps

General Description: The finished water pumps would likely be located in the treatment building adjacent to the filter units and draw water from the finished water clearwell. A separate room within the treatment facility would help to minimize noise. Alternatively, they could be located in a separate building adjacent to the clearwell. This PER assumes they are located in the treatment facility. Similar to the raw water pump station, three pumps are planned for pumping to the distribution system. Two smaller 3 MGD pumps, or one larger 6 MGD pump, would be used to fill the Smith Mountain Lake Water Tank. These pumps would also be controlled by variable frequency drives that would enable the flow pumped to the distribution system to be pumped at the most efficient speed.

Process Description: The finished water pumps are the last step in the treatment process because the water is pumped from the treatment facility to the distribution system.

The hydraulic grade from the elevated Smith Mountain Lake Tank is sufficient to provide pressure and water flow to the City of Bedford without re-pumping for the initial demands of the new system. The pumps would be needed to fill the tank from the clearwell when the levels in the elevated tank fall. The pumps would be controlled based on the water levels in the elevated water storage tank.

Preliminary Sizing: There would be two pumps rated at 2100 gpm and one pump rated at 4200 gpm; i.e., the same pump setup as at the raw water pump station. The assumed elevation of the low water level in the clearwell is 1022 feet. The high water level of the Smith Mountain Lake tank is 1220 feet. There is a 198-foot static elevation difference between these two points. Approximately 1,100 feet of 24-inch water line would be required to connect the clearwell and pumps to the existing water line to the tank. The existing waterline is 18 inches in diameter, and the connection point would be approximately 1,600 linear feet from the water tank. Based on the proposed line work being 24 inch and the existing 18 inch water line, the friction losses at 4200 gpm would be approximately 14 feet. Due to the uncertainty of final elevations and the low water level in the clearwell at the preliminary engineering stage, the initial selection of pumps is based on 220 feet of total head required. This PER assumes that vertical split case pumps are used, though either horizontal split case or vertical turbines would also be suitable choices. Two vertical split case pump models that meet the preliminary design criteria are Paco Model 1015-3/4 KPV (4200 gpm at 220 feet TDH) and Paco Model 6015-3/4 KPV (2100 gpm at 220 feet TDH). Efficiency of these pumps is approximately 82%. Fairbanks Morse and



Crane/Weinman offer vertical split case pumps that meet the preliminary design criteria as well.

Operation and Maintenance Requirements: Primary operation and maintenance points for split case pumps would be located in the treatment plant building. The gate and check valves would be located adjacent to the pumps. The finished water flow meter would likely be located in a vault outside of the pump room or main treatment building to allow adequate straight pipe for accurate measurement.

Construction Considerations: A suction header would be provided to the pumps in the main building from the clearwell. The suction header would need to be sufficiently large to prevent net positive suction head restrictions or cavitation issues from developing.

The suction and discharge piping would need to be carefully restrained against the thrusts generated by the pumping.

9. Disinfection

Free chlorine has been the industry standard for disinfection for decades because it is highly effective against most pathogens (exception is *Crypto-sporidium*) and has been historically the most reliable. However, with the EPA regulations for DBP control, concerns with the public and operator safety, utilities are changing from chlorine gas as their main disinfectant to alternative sources (Source: EPA Guidance Manual for Alternative Disinfectants and Oxidants, 1999; Water Treatment Plant Design, 4th Edition, AWWA, McGraw-Hill).

9.1 Alternative 1 – Chlorine Gas

General Description: Chlorine gas is typically delivered in one-ton containers or 150-pound cylinders. A chlorinator creates a vacuum and automatic orifice control to meter the gas. Gas can be drawn directly from the storage container or be generated by an evaporator from liquid withdrawn from the container.

Process Description: Chlorine solution would be diffused in the pipe ahead of the clearwell in a concentration necessary to achieve the required CT (e.g., 1.5 to 3 mg/L). A smaller dose would be added to the effluent of the clearwell to adjust the residual before entering the distribution system. A chlorine solution could also be added upstream of the membranes, if required, to reduce fouling.

Preliminary Sizing: For a dosage of 3 mg/L at 4200 gpm, the feed rate would be 150 pounds per day (ppd). A one-ton cylinder and a 500-ppd chlorinator would be required.

Operation and Maintenance Requirements: Special safety equipment and training must be provided for operators.



Safety/Handling Considerations: Chlorine gas is a strong oxidizer and is classified as a poisonous gas by the U. S. Department of Transportation. The storage and use of chlorine is regulated by local fire codes. In addition, facilities storing more than 2,500 pounds of chlorine are subject to the following two safety programs: (1) Process Safety Management standards regulated by the Occupational Safety and Health, and (2) Administration under 29 CFR 1910. The Risk Management Program Rule is administered by EPA under Section 112(r) of the Clean Air Act. In addition to preparing risk management prevention plans, the Department of Homeland Security (DHS) is considering regulations which would require water utilities to prepare Security Vulnerability Assessment and Site Security Plans (Source: "Chlorine Gas vs. Sodium Hypochlorite: What's the Best Option", by Shah, J. and Qureshi, N., AWWA Op Flow, July 2008). New facilities should be designed with enclosures and air scrubbers to contain and neutralize any gas that leaks. Alternatively, secondary containment vessels to fully contain a ton cylinder are available to comply with OSHA and EPA requirements.

Construction Considerations: The 1993 BOCA National Fire Prevention Code requires a treatment system (1) to prevent the accidental release of chlorine gas into the atmosphere, (2) be capable of processing the entire contents of the largest single container of gas, and (3) which reduces the maximum allowable discharge concentration to 5 ppm. Chlorine storage rooms must have emergency power for the gas treatment and ventilation systems, a chlorine gas detention system, an automatic fire detection system, and a continuously operating ventilation system. There must be vacuum piping between the cylinder and the chlorinator and between the chlorinator and the injector. Chlorine solution piping is required between the injector and the feed point.

9.2 Alternative 2 – Sodium Hypochlorite

General Description: In recent years, treatment plants have been converting their chlorine gas systems to sodium hypochlorite because of the safety concerns. Approximately one-third of all U.S. drinking water plants use bulk hypochlorite for disinfection. However, sodium hypochlorite degrades over time and contains many regulated and unregulated contaminants, including bromate, chlorite, chlorate, and perchlorate (Source: "Perchlorate, Bromate, and Chlorate in Hypochlorite Solutions: Guidelines for Utilities" by Stanford et al, Journal AWWA, Volume 103, No. 6, June 2011). Bromate and chlorite are currently regulated; however, it is likely that EPA will address perchlorate and chlorate requirements in future regulations. AWWA B-300 (AWWA Standard for Hypochlorite) addresses recommended practices for the storage and handling of sodium hypochlorite to reduce the levels of perchlorate and chlorate. These practices include (1) diluting the chemical upon delivery by approximately 50%, (2) locating the storage tank in a dark area at a cool temperature, (3) emptying and flushing tanks and piping routinely, (4) controlling pH between 11 and 13 (i.e., below 11 chlorate forms and above 13 perchlorate forms), and (5) controlling concentration of metal ions such as calcium and iron.



Process Description: Sodium hypochlorite would be applied to the filtered water in the same manner as described in the process description for chlorine gas in Section 9.1. Sodium hypochlorite can be delivered in bulk solution or generated on site. On site generation operates by electrolyzing a brine solution to generate hypochlorite. The water supply for the brine solution and dilution water typically requires softening to remove all ions that can form scale in the hypochlorite generation equipment. Hydrogen gas is generated as a by-product and requires careful consideration in the design and equipment selection to avoid potential explosion hazards associated with excess buildup of hydrogen gas in an enclosed space.

Preliminary Sizing: This PER assumes that sodium hypochlorite would be delivered in a 5,000-gallon truck at 12.5% solution. Upon delivery, the 12.5% solution would be stored in a bulk tank. The 12.5% solution would be diluted using an automated diluter to 6.25% concentration. The diluted chemical would be stored in an adjacent bulk storage tank. A water softening system would be installed for the dilution water to reduce precipitation of metals such as calcium and iron and to buffer the pH. If necessary, sodium hydroxide would be added to the dilution water to increase the pH to 11 or 13. The diluted 6.25% hypochlorite solution would then be further diluted to 1% for process use, and a transfer pump would be used to transfer the contents to a day tank located inside the building. Peristaltic metering pumps would pump the solution to the distribution point(s). Optionally, further dilution to 1% could be omitted; however, double-contained Schedule 80 PVC/CPVC solution piping would be required. Assuming a chlorine dosage of 3.0 mg/L, the diluted feed rate would be 312 gpd. For 60 days of storage, a bulk tank with a capacity of 9,400 gallons would be required. With the additional contents of a truck delivery, the total tank volume would be 14,400 gallons.

Operation and Maintenance Requirements: Scaling problems can occur with diluted hypochlorite. If undiluted, off-gassing can occur (i.e., formation of oxygen as a result of decomposition), which could cause vapor lock on the metering pumps.

Safety/Handling Considerations: Although there are fewer training requirements than with chlorine gas, a 12.5% solution of sodium hypochlorite is classified as a hazardous and corrosive substance and therefore special handling is required. Secondary containment is required.

Construction Considerations: Tanks should be FRP, PVC, or polyethylene. Tanks located outdoors should be shielded from UV exposure. Alternatively, tanks could be insulated or placed indoors to limit UV exposure. If the tanks are placed indoors, special consideration must be given to adequate ventilation to avoid corrosion of metals and electrical components in the building. A separate well ventilated chemical



tank room, or a separate building from the main treatment facility would be preferred.

10. Corrosion Control & Fluoridation

In 1991, the EPA promulgated the LCR to control lead and copper in drinking water. Public water systems are required to demonstrate that treatment is controlling levels of lead and copper to acceptable levels in customer's tap water. Acceptable levels for lead and copper are 0.015 mg/L and 1.3 mg/L, respectively, in at least 90% of the samples. Monitoring is required at the entry points if acceptable levels are exceeded on first-draw tap samples, and source water treatment may be required. Various treatment techniques are available for removal of lead and copper in the source water, such as ion exchange, reverse osmosis, lime softening, and coagulation/filtration.

In general, corrosion control techniques in finished water fall into two broad classifications: precipitation and passivation. This study addresses passivation methods, which cause the pipe material and water to react and form metal complexes with very low solubility. The two main passivation methods are corrosion inhibitors and pH and alkalinity adjustment.

Fluoridation has been practiced for many years in public waterworks and is known to improve dental health by reducing tooth decay, especially in young children. In recent years, fluoridation has become increasingly controversial with many special interest groups joining together to protest the use of fluoride in the public water supply. The Bedford County PSA currently does not practice fluoridation of its water supply, though provisions should be considered for the proposed SML WTP to allow the flexibility to do so in the future. Typically, either a sodium fluoride saturator and metering pump or hydrofluorosilicic acid solution and metering pump are used to add fluoride to the finished water prior to pumping to the distribution system. The Virginia Waterworks Regulations require that fluoride chemicals be stored in covered or unopened shipping containers in a separate room with the chemical feeder and that the room be provided with mechanical ventilation to the outside of the building.

10.1 Alternative 1 – None

Lead and copper testing results for the Lakes water system indicate that the treated water is non-corrosive. It is anticipated that there would be no significant change in the quality of the finished water that would cause an increase in corrosiveness. Therefore, one alternative is to not provide any corrosion control equipment at the SML WTP or leave space for adding equipment in future phases.

The Langelier Saturation Index (LSI) is an indicator of the scale forming tendency of water. Water with an LSI value of 0 to <0.5 will typically not dissolve existing calcium carbonate coating on metallic pipe walls or will form a thin coating of calcium carbonate on the pipe wall. A slightly negative LSI can indicate the tendency to dissolve scale from pipe walls and a value in the range of -0.5 <-2.0 indicates corrosive water.



Quarterly reports from 1995-96 for samples taken at the proposed intake location indicate an LSI of 0.02 to 0.5.

10.2 Alternative 2 – Corrosion Inhibitors

General Description: Zinc orthophosphate is a corrosion inhibitor that the LCR identifies as a best available technology (BAT). Zinc orthophosphate is typically used in municipal water systems to inhibit corrosion of water mains, sequester nuisance metals in the water supply (i.e., iron, manganese, calcium, magnesium), and improve the quality of water in the distribution system.

The American Water Works Association Research Foundation (AWWARF) and the EPA have reported that corrosion control (phosphate use included) provides numerous health and consumer benefits at a rate of return much greater than the original cost of the additive. EPA LCR Guidance Manual indicates that annual expenditures on corrosion inhibitors yield a 20-fold increase in consumer benefits.

Process Description: Corrosion inhibitors react with dissolved metals in the water to form a very thin metal-phosphate coating. They also react with metals on pipe surfaces to form a microscopic film on the inner surface of the pipe and removes scale deposits and tuberculation.

Phosphates also help lower TTHM by keeping the pipes cleaner and free of the biofilm that may generate additional organic precursors. Phosphates inhibit corrosion effectively at pH 7 to 7.5, and TTHM formation potential is significantly reduced when water is chlorinated at a lower pH (< 8.0).

Preliminary Sizing: The optimum dosage rate is determined by running a complete water analysis to determine the total demand of the finished water and the consumption rate of the distribution system. Typical dosages range from 1 to 5 mg/L. ANSI/NSF 60 has limited the application of inorganic phosphates to 10 mg/L as total phosphate ion. In most cases, this is not a health-related or safety limitation but a practical guideline for the maximum required quantity of phosphate typically applied in drinking water. Most ground and surface water supplies contain naturally occurring phosphate at low levels.

Zinc orthophosphate is typically packaged and shipped in 5, 15, 30, 55, and 275 gallon containers. It is available in bulk quantities from the manufacturing facility, local warehouses, and bulk terminals. The product is usually shipped in polyethylene drums or food quality stainless steel tanker trucks. For a 6.0 MGD facility at a 2 mg/L dosage rate, the metering pump feed rate would be 37 gpd. At least 60 days of chemical storage capacity in addition to the delivery contents would be recommended, which would require a 1400-gallon tank.

Operation and Maintenance Requirements: The critical parameters in operation are maintaining a stable pH, determining the



correct chemical composition best suited for the water quality, and applying the appropriate dosage. Zinc orthophosphate inhibitors are acidic solutions, and the pH effect of their addition to the finished water must be considered in determining the suitability of their application. The use of this inhibitor requires maintaining a consistent chlorine residual to keep the pH from fluctuating.

Because zinc orthophosphate does not change the water chemistry, the dosage rate in the raw and finished water would have to be measured. Orthophosphate can be measured on a cold water sample. Simple field test kits or laboratory analytical equipment can be used.

An overdose of phosphate is difficult to detect immediately unless orthophosphate is being monitored in the finished water. Too much orthophosphate typically will not result in a water quality problem unless calcium hardness reacting with the phosphate begins to form a slight turbidity during the film formation process inside the system.

Safety/Handling Considerations: Zinc orthophosphate is an odorless, clear, colorless liquid that can cause chemical burns and irritation. Contact with eyes, skin, and clothing should be avoided. Zinc orthophosphate should not be stored in plain steel containers. Stainless steel, plastic, plastic-lined, or rubber-lined containers or storage tanks should be used.

Construction Considerations: A chemical metering pump would be used to inject the undiluted chemical into the finished water. This injection point is separate from other chemicals added to the finished water. Ideally, the metering pump would be located near the injection point to minimize the solution tubing. A containment area would be required for chemical spillage.

10.3 Alternative 3 – Alkalinity Adjustment

General Description: The following chemicals could be added to the finished water to increase alkalinity: caustic soda, lime, sodium bicarbonate, soda ash, and carbon dioxide. Because of ease of use and availability, liquid lime (i.e. calcium hydroxide slurry) was considered for this analysis.

Process Description: Liquid lime would be pumped into the finished water ahead of the clearwell based on pH levels. The metering pump would be manually controlled with flow pacing to allow for fluctuations in the feed rate of the finished water.

Preliminary Sizing: For a 6 MGD facility and design alkalinity feed dosage of 20 mg/L and alkalinity equivalent of liquid lime of 1.26 mg/L, the design liquid lime feed concentration would be 15.87 mg/L. The liquid lime solution strength is typically 35% undiluted. Assuming a bulk delivery volume of 5,000 gallons and an additional 60-day supply, a 13,100-gallon storage tank would be required. The metering pump rate



would be 11.3 gph. The mixer manufacturer would be responsible for sizing the mixer; however, typical mixing requirements would be 1 hp per 1,000 gallons of storage volume.

Operation and Maintenance Requirements: Liquid lime is similar to conventional hydrated lime slurry except that the solids remain in suspension longer. Agitation can be accomplished with a slow speed mechanical agitator or pump recirculation. Liquid lime is also relatively easy to re-agitate if the material does settle. This form of lime also allows for quick unloading from the delivery truck. It is easy to feed, monitor, and control.

Safety/Handling Considerations: This alkali provides several environmental and safety advantages. Liquid lime is non-hazardous, simplifying transportation, storage, and handling. Both air permit requirements and potential injuries associated with dry chemical handling are eliminated.

Workers should wear safety goggles and rubber gloves. Contact with skin is virtually harmless, the principal effect being removal of natural skin oils.

Construction Considerations: Liquid lime should be stored in enclosed plastic, fiberglass, or non-aluminum metal tanks or containers. Product should be stored in a cool, dry, and well-ventilated area away from moisture and acids.

11. Distribution System Disinfection Byproduct Control

The Stage 2 D/DBPR establishes guidelines for reducing disinfection byproducts (DBPs) that form when chlorination is used to disinfect water containing natural organic matter. DBPs can be greatly reduced through pre- or post-treatment as outlined in Sections 3 and 7 of this report. When other treatment is not effective alone in the removal of DBPs, distribution system controls may need to be implemented. Typical DBPs are HAA5 and TTHM. Stage 2 D/DBPR has set the MCL at 0.08 mg/L for TTHM and 0.06 mg/L for HAA5 using locational running annual average (LRAA). Areas of low demand/turnover and long distance distribution lines (i.e., maximum residence time) in the distribution system contribute to the formation of DBPs. These areas include pipe extremities (dead ends), branches with low water use, tanks, and sections of pipe downstream of tanks. Other factors that contribute to DBP formation are pH levels. Chlorination at higher pH forms a higher amount of TTHMs, while lower amounts of HAAs are produced. High temperatures contribute to the formation of TTHMs. Low disinfectant residuals relative to the system average (typically less than 0.2 mg/L) can be an indicator of higher HAA5 concentrations.

An evaluation of the water age under the proposed water system's configuration was performed to help identify areas where additional measures might be necessary to maintain suitable water quality. The evaluation was performed under average daily diurnal demand conditions. The model assumed that water age equals zero at the point of chlorination at the water treatment plant



in the clearwell. From there, it is pumped to the elevated Smith Mountain Lake Tank. The finished water pumps were modeled to fill the Smith Mountain Lake Tank when the level reached 1219' and stop when full (1224'). The proposed transmission main was controlled by the Forest water tanks, opening when the New London Tank's hydraulic grade falls to 1070' and closing when the Altha Grove Tank's hydraulic grade reaches 1075'. Assumptions made in the water age model include complete mixing of all tanks and pipes, uniform residential demands, and demands placed at their nearest node. An evaluation of the water age under the existing High Point/Lakes water system's configuration was also performed to provide a point of comparison to the proposed system.

The results of the existing system water age evaluation are documented in Appendix A in a figure titled "Existing Lakes Water System – Water Age Exhibit" and the results of the proposed water age evaluation are in a figure titled, "Proposed Water System – Water Age Exhibit". The maximum water age calculated in the analysis of the existing Lakes system ranges from less than 2 days in the Highpoint subdivision near the treatment plant, to over 14 days in the far ends of the Lakes system in Bedford County (Lake Estates and Gross Point). The maximum age in the Smith Mountain Lake Tank is approximately 9 days in the existing system. The maximum water age calculated in the analysis of the proposed system ranges from 3 days once it enters the Forest system, up to 22 days at the far end of the Forest system concentrated around the Altha Grove tank. In this operational scenario, the maximum age in the Smith Mountain Lake, Altha Grove and New London Tanks are 2, 22 and 15 days respectively when the water age in the tanks reaches steady state.

It is important to note that no comparisons can be made to the water age in the existing Forest system without having detailed information in the Lynchburg hydraulic model. Thus, it is unknown if the water age increases or decreases in Forest as a result of closing the connections with the City of Lynchburg. Since the water sources are different, a comparison of water age between the existing and proposed systems would not likely provide meaningful information. However, it is possible to compare the water age in the existing High Point/Lakes water system to the proposed Forest system. Based on the proposed system, water ages in the Lakes system appear to improve slightly versus the existing system. This is because the demands from Forest cause the Smith Mountain Lake Tank to fluctuate more frequently, thus increasing the turnover rate and providing lower water ages of around 6 to 8 days in the far ends of the Lakes system.

A further evaluation was performed with the proposed system's controls optimized to increase turnover in the Forest Tanks. To begin, the minimum water level necessary in the Forest Tanks to support a 2-hour 1,000 gpm fire flow event was calculated, assuming equal flow from each tank. The proposed transmission main was controlled by the New London Tank, nearest to its point of connection, and set to fluctuate between a hydraulic grade of 1060' - 1065'. The hydraulic grade of the Altha Grove Tank was examined to ensure it was maintained above the aforementioned minimum level. The water age in this scenario is reduced from the previous operational scenario since the maximum age in the Altha Grove and New London Tanks are reduced to 10 and 6 days respectively, which also reduces the water age in the distribution system. While this provides some



some water age improvement over the initial evaluation, operation of the system with reduced storage volume can change pressures, available fire flows, fire flow duration, and effective storage and is not recommended without further consideration of these changes on overall system performance.

If treatment plant processes are optimized and operational procedures are strictly adhered to, then additional DBP control in the distribution system may not be required. Methods to optimize DBP control in the distribution system include pipe looping, managing valve operation, flushing, bypassing oversized pipes, and storage tank aeration. Chloramination using liquid ammonia is also an option. This section discusses alternatives for lowering the potential for DBP formation.

11.1 Alternative 1 – None

This alternative discusses design features and operational practices that could be performed to reduce DBP's without additional equipment.

General Description: DBP's may not be a problem if the treatment plant chemicals are optimized and operational procedures are strictly adhered to. Other design optimizations include distribution system pipe looping to prevent dead ends, managing valve operation, bypassing oversized pipes, and eliminating excess storage and tanks in series.

Water age in a storage tank can be reduced by increasing the volume turnover. This can be achieved by increasing the volume of water during a drawdown or by increasing the number of fill/drain cycles per day. Increasing the drawdown between fill cycles would be optimal. Adjustment of tank water level controls or the control settings for altitude valves may be required.

Emptying the tank contents by taking it off-line and draining and cleaning it periodically is a good maintenance practice to remove sediment that has accumulated on the tank bottom (Ref: Stage 2 Disinfectants and Disinfection Byproducts Rule, Consecutive Systems Guidance Manual, 2010).

11.2 Alternative 2 – Flushing

General Description: The Stage 2 Guidance Manual also provides detailed information on various flushing techniques. Routine maintenance flushing normally occurs by opening hydrants (without isolation valves) and running the water until it clears. Velocities are usually less than 5 fps and cannot remove sediment and other debris that can contribute to high DBP levels.

Directional flushing can achieve velocities greater than 5 fps to scour the pipe and reduce DBP levels. The water is flushed in one direction through operation of valves. The process typically begins at a source of high quality water (e.g., a large transmission main) and



gradually moves through the system by opening hydrants and opening/closing valves. The higher velocities are achieved because water moves towards the hydrant in one direction.

Automatic (intermittent or continuous) blow-offs can be installed to bring fresh water to pipe extremities and stagnant water zones. The velocities for a blow-off are generally very low in larger pipes; however, blow-offs can be effective on a seasonal basis during high water temperature periods or in smaller diameter distribution systems.

Operation and Maintenance Requirements: Flushing requires the wasted potable water be disposed of properly. This is typically done by discharging to either the sanitary sewer, or any nearby ditches or streams. Prior to discharging from a flushing unit, it may be necessary to dechlorinate with sodium bisulfite.

Construction Considerations: No major construction issues are associated with this alternative. Locating the flushing units at the optimal locations are the main concern.

11.3 Alternative 3 – Storage Tank Aeration/Mixing

General Description: Because TTHMs are volatile compounds, aeration has been shown to reduce or eliminate them. It is not an effective reduction alternative for HAA5s. If mixing is not provided in the storage tank and the water age is high, thermal separation begins to occur with the warmer water rising and the colder water sinking to the bottom. Mechanical aeration devices or recirculation pumps can be used to mix and aerate the contents. Discharge through spray nozzles is normally set above the water surface. Efficiency is achieved by optimizing the ratio of surface area of air to volume of water.

A recent study (“Post Treatment Aeration to Reduce TTHMs” by Brooke and Collins, Journal AWWA, October 2011) suggests that spray aeration can achieve removal rates of 20 to >99.5%. The study also showed that diffused aeration is slightly less effective, that reduction of TTHMs significantly increase with warmer temperatures, and that free chlorine does not appear to be impacted by aeration (except temporarily upon changing the flow pattern of the tank).

Modeling techniques can be used to analyze water mixing characteristics of the storage tank. In addition to calculations of hydraulic residence time, fluid dynamic modeling can provide visual images of water mixture and water temperature profiles can illustrate temperature layers.

Operation and Maintenance Requirements: O&M requirements for storage tank aeration/mixing is similar other treatment processes involving air compressors and pumps. One important consideration is that all materials used in the construction of these systems must be NSF



61 approved and any time they are removed for maintenance or inspection must be disinfected properly prior to reinstallation.

Construction Considerations: The existing tanks would have to be temporarily taken out of service to install the aeration/mixing system. All components would need to be appropriately disinfected prior to installation. It is recommended that the work include draining, cleaning, and disinfecting the entire tank at the time of installation.

11.4 Alternative 4 – Chloramination

General Description: Chloramine as a secondary disinfectant would be beneficial for reducing DBP's in the distribution system. When ammonia is added in the distribution system, it combines with chlorine to produce chloramine. Monochloramine is the most common form and maintains its effectiveness while traveling through the distribution system. It can react with natural organic matter in water to form potentially harmful DBP's; however, compared to chlorine, water treated with monochloramine contains fewer regulated DBP's that have been linked to human health problems. Also, TTHM and HAA5 occur in lower concentrations than in chlorine. Taste and odor generally improves with chloramine, and biofilm is less likely to form. Chloramine has been used by water utilities for several decades and is closely regulated by EPA. It is estimated that about 20% of households use drinking water treated with chloramine.

Process Description: A liquid ammonia storage and feed system would be required, and ammonia would be injected into the finished water line before entering the distribution system. Complete mixing is required in order for the ammonia to react with chlorine. Most drinking water systems add chlorine first in the treatment plant in order to achieve the required concentration and contact time. The point of application of ammonia is typically set to extinguish the free chlorine residual after the optimum disinfection has occurred based on minimizing DBP formation.

Preliminary Sizing: The normal dosage range for monochloramine is 1.0 to 4.0 mg/L. The minimum residual of monochloramine in the distribution system is typically 0.5 mg/L. Liquid ammonia is usually delivered in 20% concentrations. A normal truck delivery is 6,000 gallons. A storage tank, metering pump, relief valve, pulsation dampener, flow meter, and backpressure valve are typically provided. The feed pumps should be located close to the storage tank to minimize the chance of ammonia vapors forming in the piping. A low-pressure steel or fiberglass storage tank could be located outdoors if covered with a shelter or equipped with a temperature control system. The metering pump feed rate would be 34 gpd. The bulk storage tank requirement for 60 days is 1,000 gallons. Adding a 6,000-gallon truck delivery, the total tank volume would be 7,000 gallons.

Operation and Maintenance Requirements: Liquid ammonia feed systems are similar to other liquid chemical feed systems.



Safety/Handling Considerations: Liquid ammonia is very corrosive with a boiling point of 80°F. Therefore, pressures could develop in the storage tank above this temperature. Ammonia gas is flammable at 16 to 25% by volume; however, it is not defined as a flammable gas by the UFC. The storage tank should be equipped with a water trap or ammonia scrubber to keep vapors from escaping to the atmosphere.

Construction Considerations: Temperature and ventilation are important considerations. A separate ammonia feed room is required. Carbon or stainless steel pipe should be used; under no circumstances should copper, brass, or bronze be used.

12. Forest Distribution System Analysis

One concern raised by the Virginia Department of Health during their review of the 2010 *Lakes-Bedford-Forest Water Supply Evaluation* was the impact of removing the Forest water system's connection to the City of Lynchburg might have on the system's available fire flow capacity. Anderson & Associates recently completed the creation of a water model for the Bedford County PSA's Forest water system to analyze the effect the proposed water supply switch. This water model was used to perform an available fire flow analysis of the Forest water system with and without its connections to the City of Lynchburg. The methodology and results of the analysis are described below.

12.1 Fire Flow Analysis Methodology

A hydraulic model of the Forest water system was created using the WaterGEMS software platform based upon the latest water distribution network, facility, and demand information provided by the Bedford County PSA. The hydraulic model was then calibrated based upon fire hydrant flow test and tank trend information provided by the Bedford County PSA.

In the existing water system's configuration, water is produced at the City of Lynchburg's WTP where it is transferred into either the City's Huntingwood Tank or into the Forest service area through either the Hawkins Mill, Lakeside Drive, or Graves Mill Road Master Meters and ultimately into either the Althea Grove or New London Tanks. The existing Forest water system operates as a single pressure zone served by three water storage tanks across Bedford County and the City of Lynchburg with one directional flow into the Forest service area at the aforementioned master meters.

An evaluation of the available fire flow in the existing Forest water system was first performed to establish a baseline value for comparison against the proposed water system's configuration. The evaluation was performed under twice average daily demand conditions, with the Lynchburg WTP pumps off, and all tanks at their approximate normal low level of 1065'. The results of this evaluation are documented in Figure D-12.1 included in Appendix A titled, "Existing Forest Water System – Available Fire Flow Exhibit".



In the proposed water system's configuration, water will be produced at the PSA's proposed SML WTP where it is transferred into the Forest service area through the proposed transmission line, through a proposed pressure reducing valve and into the Althea Grove and New London Tanks. The proposed Forest service area will operate as a single pressure zone served by two water storage tanks with no interaction with the City of Lynchburg at the Hawkins Mill, Lakeside Drive, or Graves Mill Road Master Meters. The remainder of the Forest water system north of the Hawkins Mill Master Meter will continue to be served off the City's Huntingwood Tank.

An evaluation of the available fire flow in the proposed Forest water system was performed to analyze the effect of removing the system's connections with the City of Lynchburg. The evaluation was performed under twice average daily demand conditions, with the proposed transmission main closed, and all tanks at their approximate normal low level of 1065'. The results of this evaluation are documented in Figure D-12.2 included in Appendix A titled, "Proposed Forest Water System – Available Fire Flow Exhibit".

12.2 Fire Flow Analysis Results

The existing Forest water system, with the connections to the City of Lynchburg, demonstrated the ability to maintain a minimum of 500 gpm available fire flow at all hydrant locations served by 6" or larger diameter water lines, while maintaining a minimum of 20 psi throughout the water system. Please refer to Figure D-12.1 included in Appendix A titled, "Existing Forest Water System – Available Fire Flow Exhibit" for details on the available fire flows within the existing water system. Also included in Appendix D is a tabular print-out of the available fire flow at the ten most critical hydrants and a map that identifies the location of these hydrants.

The proposed Forest water system, without the connections to the City of Lynchburg, demonstrated the ability to maintain a minimum of 500 gpm available fire flow at all hydrant locations served by 6" or larger diameter water lines, while maintaining a minimum of 20 psi throughout the water system. Please refer to Figure D-12.2 included in Appendix A titled, "Proposed Forest Water System – Available Fire Flow Exhibit" for details on the available fire flows within the existing water system. Also included in Appendix D is a tabular print-out of the available fire flow at the ten most critical hydrants.

Figure D-12.3, titled, "Forest Water System – AVFF Reduction Exhibit" is included in Appendix A. This exhibit documents the reduction in available fire flow throughout the Forest water system upon the closure of the connections to the City of Lynchburg. This exhibit demonstrates the largest reductions in available fire flow occur nearest to the connections with the City of Lynchburg. However, the reduction in available fire flow is present throughout the Forest service area. This is due to the loss of the flow path provided by the City of Lynchburg's water distribution system on the upstream side of the master meters. It should



also be noted that the parts of the Forest water system remaining on the City's Huntingwood Tank show no change to a slight increase in available fire flow due to the reduced pipe flow caused by closure of the master meter connections.

13. Instrumentation

The instrumentation at the plant needs to monitor various plant processes for the operator, to be able to demonstrate compliance with VDH regulations and troubleshoot potential problems that occur. A SCADA system is also needed to monitor off site tank levels, and record and archive data for reporting purposes. The BCPSA has an advanced SCADA system already, which could be utilized for the control and monitoring of this WTP. This section is written to describe some of the minimum requirements for the instrumentation and SCADA system, but not evaluate alternatives.

13.1 Plant SCADA

The SCADA system at the water treatment plant would feature both an internal and external component. The internal SCADA would be monitoring and controlling plant processes, such as filter backwash, in order to facilitate ease of operation. With conventional filtration, the internal SCADA system is often provided by a systems integrator who programs the screens and sequences into the PLC for filter backwash, rate of flow control, and loss of head monitoring/ alarms. The internal SCADA can also operate pumps based on tank levels in the system. Membrane filtration systems often have a far more complex internal SCADA to control the various processes, open/close valves, and monitor filter status. Due to the complexity, membrane manufacturer's will typically provide a complete SCADA system for their equipment, including operator interface terminals, PLC's, and a plant computer with appropriate hardware and software. At a minimum, the following SCADA components are recommended for this project:

Master PLC with backup program stored on removable media storage and a spare PLC (i.e. shelf spare) readily available in the event of PLC failure.

CPU with SCADA software programmed to the BCPSA's requirements and an external backup.

Uninterruptable power supply and power conditioner for all PLC's and for the CPU system.

13.2 Instrumentation

Instrumentation at the water treatment plant would depend on the treatment process selected. Figure D-13.3 summarizes the minimum instrumentation and control needs for both a conventional and membrane treatment process.

Figure D-13.3 – Instrumentation and Controls

SCADA Components - Membrane	SCADA Components - Conventional
On-Site	On-Site
Raw Water Tank Level	Raw Water Turbidity (Tungsten Filament Type)
Feed Pump Suction Pressure (Manual Gauges)	Raw Water pH/Temp.
Feed Pump Discharge Pressure (Manual Gauges)	Settled Water pH/Temp.
Strainer Suction Pressure (Pressure Transmitters)	Settled Water Turbidity (Tungsten Filament Type)
Strainer Discharge Pressure (Pressure Transmitters)	Settled Water Chlorine Residual
Raw Water Turbidity (Tungsten Filament Type)	Filter Influent Channel Level
Raw Water pH/Temp.	
Rack #1thru #4 Inlet Flow	Filter #1thru#7 Flow
Rack #1thru #4 Inlet Pressure (Pressure Transmitters)	Filter #1thru#7 Loss of Head
Rack #1thru #4 Outlet Pressure (Pressure Transmitters)	Filter #1thru#7 Turbidity (Laser Nephelometer Type)
Rack #1thru #4 FWTurbidity (Laser Nephelometer Type)	FW Combined Turbidity (Tungsten Filament Type)
FW Combined Turbidity (Tungsten Filament Type)	Clearwell Tank Level
FW Flow	FNW pH/Temp.
FW Pressure (Pressure Transmitter)	FNW Free Chlorine Residual
Clearwell Tank Level	FNW Pump Suction Pressure (Manual Gauges)
FNW pH/Temp.	FNW Pump Discharge Pressure (Manual Gauges)
FNW Free Chlorine Residual	FNW Flow
FNW Pump Suction Pressure (Manual Gauges)	Backwash Pump Flow
FNW Pump Discharge Pressure (Manual Gauges)	PACI Tank Level
FNW Flow	Hypochlorite Tank Level
Excess Recirculation Pump Flow	Off-Site
Rack #1thru #4 Air Pressure (Manual Gauges)	Smith Mountain Lake Tank Level
Acid/Caustic Tank Level	Raw Water Pump Station Flow
Acid/Caustic Tank Temperature	
Hypochlorite Tank Level	
Off-Site	
Smith Mountain Lake Tank Level	
Raw Water Pump Station Flow	



E. EVALUATION OF ALTERNATIVES

This section presents the advantages and disadvantages of the alternatives presented in the previous section. Each unit process will be evaluated briefly, including estimated project and operation and maintenance (O&M) costs. Costs presented in each individual section are rounded to the nearest \$10,000. A total annual cost is presented for the alternatives when it appears that they may be similar. The total annual cost is based on the sum of amortization of the total project cost and the annual O&M costs. Amortization cost of the project assumes an interest rate of 4.5% and a loan term of 25 years. An overall project cost for the recommended project and alternatives, including engineering and related costs, is presented at the end of this section.

1. Intake

1.1 Advantages and Disadvantages of Alternatives

Two intake alternatives were evaluated: the use of buoy-supported floating screens, and adjustable screen supported on a fixed pier structure. Both configurations make use of stainless steel, cylindrical, slotted intake screens. Since the advantages of one alternative are generally disadvantages of the other, mainly the advantages of each of the two alternative configurations are discussed.

The floating intake configuration would generally be easier to construct and thus provides a shorter construction duration versus the fixed intake. It would also allow the use of a smaller air supply system since all three screens would not have to be air scoured at the same time.

Operationally, the adjustable intake provide slightly more reliability than the floating intake since each 44-inch screen can provide 6.0- MGD of capacity with one out of service, thus capacity can be maintained. With the floating intake configuration, most, but not all, of the 6.0 MGD capacity could be maintained if one screen unit is out of service. The floating intake provides withdrawal at a constant depth regardless of the varying lake level and while it's not an easy change, the depth can be altered if desired.

The floating intake will result in only some buoys visible at the lake's surface. This will have less visual impact than a pier and "boathouse". This is likely to make the floating intake meet less resistance during permitting. Since buoys, piers, and boathouses are common at the lake, both alternatives should be acceptable to the public. The floating system does not rely on a rigid structure in the water and would likely sustain less damage if a boat strayed into this restricted area.

The fixed intake and pier system greatly reduces the need for outside assistance during maintenance. It would allow ready access by BCPSA personnel at virtually any time and also allow quicker access during an emergency. Because the screen can be easily raised or lowered, it would allow the Authority personnel to easily adjust the elevation of the screen. In short, it allows the BCPSA more control.



Since the fixed system has fewer screens than the floating screen (both initially and in the future) and a larger air supply system, air scouring should occur less frequently than with three screens.

The fixed intake system does have some distinct disadvantages that are not necessarily advantages to the floating system. The fixed system could create an attractive nuisance with people trying to access the pier. Additional security would be required and, in spite of the additional security, access to the intake area would be more readily available than with the floating intake system.

1.2 Capital and O&M Cost Comparison

The estimated cost for the floating intake and fixed intake is summarized below. O&M costs considered include bi-annual cleaning costs and power costs. While the floating screens require higher cleaning costs due to the cost of hiring a barge with a crane to lift the floating intakes out of the water, the fixed screens require more energy costs to operate the air scour system.

Description	Cost (Millions)	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Floating	\$0.52	\$20,000	\$55,100	3 to 4 months
Fixed	\$1.03	\$9,000	\$78,500	6 to 9 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

1.3 Conclusions

While the capital cost of the fixed intake configuration is roughly double to that of the floating intake, the anticipated O&M costs of the floating intake are approximately twice those of the fixed configuration. The O&M costs for the floating system are highly dependent on how often the depth of the intake screen is changed. Four changes per year were assumed. Similar changes in screen elevation with the fixed system can be made at virtually no additional operating cost.

The two alternatives provide a similar function, but the fixed system provides greatly superior control. The fixed system also includes the construction of the intake needed to achieve 12 MGD thus eliminating this as a future expense.

A fixed screen is recommended to allow the Authority more flexibility, access and control, especially during an emergency.



2. Raw Water Pumping

2.1 Advantages and Disadvantages of Alternatives

Both vertical turbine (submersible) and split case (wet pit/dry pit) pumps were evaluated for the raw water pump station, but not as distinct alternatives for cost estimating purposes. An advantage to the use of vertical turbine pumps is that a smaller building footprint is possible, due to the pumps being directly mounted over the wetwell structure. Also, using vertical turbine pumps requires less excavation next to the lake since there is no need to construct a dry pit. As land is at a premium at the projected site, the smaller footprint and less excavation is a clear advantage to the vertical turbine pump selection. One disadvantage of the vertical turbine pumps is that a taller building will be required to provide adequate room to remove the pumps from the wetwell. The design of the building could incorporate an internal hoist system, or it would need to have removable access hatches above the pumps for BCPSA to contract a crane for removal of the pumps.

The construction of the split case pump dry vault would require the installation of a sump pump system capable of dewatering the facility. This is a distinct disadvantage to the vertical turbine submersible since it may be difficult to provide an adequate discharge location immediately beside the pump station facility.

2.2 Capital and O&M Cost Comparison

The cost of the pumps is approximately equal whether they are split case or vertical turbines. The split case pumps would be required to be constructed in a dry pit adjacent to the lake and under the water surface level. This dry pit would result in a significantly higher capital cost to construct the split case pump alternative. For this reason, cost estimates were only developed for the vertical turbine alternative.

Both alternative pump systems would require similar horsepower motors; therefore, electrical costs should be effectively the same. The split case pump would have a slightly higher electrical cost for running the dry pit system because there will be additional lighting, ventilation, and sump pump operation costs associated with this alternative.

No alternatives were evaluated in depth for the raw water line so no cost comparison can be made. Estimated costs are based on the longer of two alternative alignments identified and using 30-inch class 200 ductile iron pipe. The estimated capital and O&M costs for the raw water pump station and raw water force main are:



Description	Cost (Millions)	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Pump Station	\$2.15	\$138,000	\$283,000	6 to 9 months
Force Main	\$2.87	\$10,000	\$203,600	4 to 6 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

2.3 Conclusions

Vertical turbine pumps are recommended for the raw water pump station. The building design will need to accommodate removal of these pumps for maintenance and replacement. A 30" pipe is recommended for the raw water line.

3. Pretreatment

3.1 Advantages and Disadvantages of Alternatives

Alternative 1 considers permanganate, which can reduce iron and manganese, taste and odor compounds, nuisance organisms, certain viruses, and controls formation of TTHM's and other DBP's. It is easy to transport, store, and apply and causes little impact on other treatment processes. It is currently being used at the High Point WTP so operators are familiar with it. Disadvantages of permanganate is the long contact time required, the purple/pink color it produces if overfed, and separate feed facilities.

Alternative 2 considers chlorine dioxide, which is a strong oxidant and disinfectant and is very effective in the reduction of DBP's and the removal of iron and manganese, arsenic, color, and taste and odor compounds. It is also more effective than chlorine as a disinfectant. However, because chlorine dioxide produces chlorite/chlorate byproducts, dosage needs to be carefully controlled and monitored to comply with the Stage 1 DBPR. Chlorine dioxide is generated on-site, presents some unique safety concerns, and the cost can be higher than Permanganate. WVWA has had considerable success using Chlorine Dioxide, but other regional utilities such as the BCVPI Water Authority experienced limited success.

Alternative 3 examines the use of PAC, which is typically used intermittently for taste and odor control and TTHM and organic reduction. A disadvantage of this alternative is that large doses are sometimes required and PAC can increase sludge production since solids are being added to the water. Thus sludge handling and disposal costs can increase when it is used. It can also increase the frequency of backwashes in the membrane process. A separate well-ventilated, fire-resistant carbon feed and storage room is required for using PAC.



3.2 Capital and O&M Cost Comparison

Permanganate costs approximately \$0.01 per 1000 gallon of treated water (Source: Carus Corporation). In contrast, chlorine dioxide costs approximately \$0.03 per 1000 gallons (Source: EPA). Because PAC would require relatively high doses compared to the other alternatives and special equipment to prepare the slurry and store the PAC, capital and O&M costs would also be relatively high. For example, based on a dosage of 10 mg/L and a cost of \$1.00/pound for PAC, the chemical cost would be approximately \$0.08 per 1000 gallons. The permanganate and chlorine dioxide would likely have similar O&M costs, but the PAC would require greater O&M costs than either due to the slurry equipment power usage and operator time to monitor and maintain the equipment. Based on this basic comparison, it is anticipated that permanganate would be the least expensive on an annual operating cost basis. The estimated capital and O&M costs of each alternative are:

Description	Cost	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Liquid Permanganate	\$90,000	\$20,000	\$26,100	<3 months
Chlorine Dioxide	\$270,000	\$50,000	\$68,200	<3 months
PAC	\$380,000	\$110,000	\$135,600	<3 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

3.3 Conclusions

Because of its ease of usage, lower cost, and operator familiarity with the system, it is recommended that sodium permanganate be used at the SML WTP as a pretreatment oxidant for reduction of DBP's and other organics. By adding it at the High Point WTP, there would be more than enough detention time (i.e., >60 minutes) before reaching the SML WTP. There is adequate room at the existing plant to store a new chemical storage tank. Some site work may be required to allow chemical delivery trucks to access the site easily. The plant should be designed to allow for easily adding chlorine dioxide in the future if the permanganate alone is not successful.

BCPSA should conduct raw water and filtered water Total Organic Carbon (TOC) testing at the existing High Point WTP. It is also recommended that the raw water Ultraviolet Absorbance at 254 nanometers (UVA254) be analyzed at the same time the raw water TOC samples are collected so that a Specific Ultraviolet Absorbance (SUVA) value can be calculated. This will help determine the type and nature of organic carbon present in the raw water, the efficacy of current



permanganate preoxidation on TOC removal, as well as provide additional data for future design purposes

4. Solids Removal

4.1 Advantages and Disadvantages of Alternatives

Alternative 1 is the conventional sedimentation/sand filtration treatment process and is effective in removing organics and pathogens and is a robust process that has been used successfully for many years. However, chemical usage can be high, and the treatment processes are labor intensive. Low water temperatures and low raw water turbidity (conditions present in Smith Mountain Lake) can present operational challenges. VDH Waterworks Regulations require two full time operators in attendance at a conventional plant when the plant is in operation. The heavy civil construction for a conventional water treatment plant is typically high, as the treatment basins, filters, and clearwell are usually constructed of cast in place concrete. Geotechnical conditions of the site are paramount to successful construction of concrete basins that will not leak due to cracks caused by settlement or poor bearing capacity of the soils. The construction time for a conventional plant is also typically fairly lengthy and the cost can be high. For example, it was recently reported in the Northern Virginia Daily, that a new 3.0 MGD conventional water treatment plant constructed in Strasburg will be complete and operational in early September 2012 and that construction commenced in August 2009 at a project cost of approximately \$12 million dollars.

Alternative 2 is to use membrane filtration, which is increasingly becoming a treatment system of choice for utility agencies in Virginia and elsewhere. It is effective in removing larger pathogens such as *Giardia* and *Cryptosporidium* and provides absolute barrier separation of particulates from the water. Membrane filtration can handle water quality fluctuations with appropriate pre-treatment, although most systems in the state of Virginia are either being used on surface influenced groundwater or on excellent quality surface water. Because membrane filtration systems are typically fully automated with the capability of remote monitoring and control through SCADA, the operating staff can work part time. VDH Working Memo 880 allows for staffing by a single operator for sufficient time to perform the daily tasks and checks required of the system. In many cases, there is minimal chemical usage compared to conventional treatment, and the units are very compact so smaller buildings can be used to house the equipment. Depending on the design, construction time can also be accelerated. For example, a 4.0 MGD membrane treatment facility (with 3.0 MGD of filtration capacity for the initial plant) was constructed for the Radford Army Ammunition Plant in less than 12 months on a fast track basis. Though the construction cost of that project is confidential at the request of the Owner, it was completed for significantly less cost than the \$12 million conventional facility being finalized in Strasburg. Another 6.0 MGD membrane facility constructed in Waynesboro (Coyner Springs Treatment Facility) was reported by local media to be completed at a construction cost of



approximately \$9.7 million in a period of approximately 13 months starting in late 2007.

4.2 Capital and O&M Cost Comparison

A cost estimate for the conventional treatment alternative was prepared based on cost estimate information and methodology outlined in McGivney and Kawamura's "Cost Estimating Manual for Water Treatment Facilities" (Wiley & Sons, Inc., 2008). A cost estimate for a pressurized membrane filter plant was prepared based on A&A's experience with construction of similar facilities and a budget estimate from Pall Corporation, a potential equipment supplier for the membrane filtration equipment. The summary of capital and operating costs for each alternative are:

Description	Cost (Millions)	O&M Cost	25 Year Equivalent Annual Cost (Millions)	Construction Period
Conventional Filtration	\$18.395	\$740,000	\$1.98	>24 months
Membrane Filtration	\$10.78	\$390,000	\$1.12	12 to 15 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

4.3 Conclusions

Membrane filtration is an appropriate treatment technology for the water quality anticipated from this source. A pressurized membrane filtration treatment system is the recommended solids removal alternative based on the lower capital and O&M cost of this alternative versus conventional filtration, as well as the lower estimated construction time and the familiarity of BCPSA with membrane filtration treatment currently being utilized at the High Point WTP.

5. Backwash Treatment

5.1 Advantages and Disadvantages of Alternatives

Alternative 1 is to use membrane filters for backwash recovery and the advantages of this alternative are primarily that the BCPSA already owns membrane filtration equipment that can be relocated to the new treatment plant building and utilized for this application. Thus, the capital investment is low since the equipment is already owned. Furthermore, the quality of water produced by the membranes will be excellent so long as the membrane modules are maintained. A disadvantage of reusing the membrane filters at the proposed SML WTP would mean that they are not available for use elsewhere in the PSA's system or for selling to generate some revenue.



Alternative 2 has several disadvantage related to the process. Since high rate clarifiers would be best located outside the main treatment building due to their size and operation, the piping to and from the clarifiers would need to have freeze protection measures applied since it some of it would likely be above grade. Also, chemical feed facilities for a coagulant would be needed to provide adequate settling conditions. Finally, the process would need to be optimized and frequently checked to produce good quality effluent and even with optimal conditions, would not produce the same quality effluent as a membrane filter system.

5.2 Capital and O&M Cost Comparison

A manufacturer provided a budget proposal for two high rate clarification units sized for this application. Their cost was used as the basis for that alternative. O&M costs included chemicals, labor, and electricity. The membrane system is assumed to be relocated Pall AP-4 skids from the High Point WTP. Pall's engineering department performed an initial evaluation and recommended both units be used to provide more flexibility in operation. The capital costs for this system include relocating and re-assembling the membrane skids at the new water treatment facility. The O&M costs include the electrical, labor, and chemical costs associated with operating the membrane skid.

Description	Cost	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Membrane Backwash	\$330,000	\$62,000	\$84,300	3 to 5 months
High Rate Clarifiers	\$1,420,000	\$60,000	\$155,800	6 to 9 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

5.3 Conclusions

The membrane backwash treatment is recommended due to its lower construction cost and similar operation to the recommended main treatment process (i.e. pressurized membrane filtration). The existing AP-4 units at the High Point WTP can be relocated to the SML WTP for this purpose. The operation of this system will be familiar to BCPSA personnel since they already own and operate it. It will be compatible with the main process selection of membrane filtration and should allow for common use of the chemical feed equipment and membranes that are no longer suitable for use in the main process can be used on the backwash recovery skids.



The existing AP-3 unit can be relocated to one of the Authority's well systems, disassembled for parts and scrap steel, or sold to another utility. The compressed air system for the existing High Point facility is too small for the proposed SML WTP and should go with the AP-3 system for reuse elsewhere.

6. Backwash Disposal

6.1 Advantages and Disadvantages of Alternatives

Alternative 1 (pump to Moneta using PS #4) poses the lowest risk to the PSA in terms of exposure to permit liabilities, since both Alternatives 2 and 3 would require permits and suitable operation for permit compliance. The upgrade of Pump Station #4, if required, would most likely be limited to replacement of pumps, controls, and the equalization basin. The relative simplicity of this upgrade would be an advantage over the complexity of constructing a discharging system or infiltration basins.

Alternative 2 considers infiltration basins that would be simpler to operate and have no impact on the Moneta WWTP, whereas Alternative 1 requires capacity of the liquid treatment train and Alternative 3 requires capacity in the solids treatment system at Moneta. The disadvantage is that the soils at the site need to be carefully considered prior to design and could require replacement if they fail to perform as anticipated in the infiltration basins. Sanitary wastewater would require separate handling by piping to Pump Station #4.

Alternative 3, a VPDES discharging system, has the disadvantage that it would require a licensed wastewater operator and annual permitting fees to discharge. It would require a sludge management plan for the dewatering and ultimate disposal of the solids from the treatment system. As in Alternative 2, sanitary wastewater would require separate handling by piping to Pump Station #4.

6.2 Capital and O&M Cost Comparison

Alternative 1 would require an increase in capacity of the existing pump system at Pump Station #4 and thus require replacement of the two submersible pumps. To accommodate the larger pumps the electrical controls would likely require an upgrade to include larger motor starters. It would also require an equalization basin upstream of the pump station to avoid surges of water that occur during backwash procedures.

Alternative 2 would require construction of four infiltration basins and associated yard piping. It is not anticipated to cost as much as Alternative 3, and just slightly less than Alternative 1.



Alternative 3 (treat the wastewater for surface discharge) would require equipment and facilities for chemical addition, settling ponds, a pump station and force main with all associated appurtenances. The construction of this alternative would have a much higher capital cost than either of the other alternatives assuming that the discharge must be pumped to Goose Creek. If Mattox Creek had favorable discharge limits, the capital cost would decrease significantly.

Regarding O&M costs, Alternative 1 would require electrical service for the pumping of the wastewater, additional O&M costs to treat the wastewater at the Moneta wastewater treatment plant, and periodic routine maintenance of the pumps. Alternative 2 is anticipated to have considerably lower O&M costs than either of the other alternatives, assuming suitable soils are present that don't require frequent replacement. Alternative 3 would require a licensed operator to operate the system, and operational costs would include chemical additive costs to aid in settling, and pumping costs. The sludge would also need to be removed and hauled to Moneta for dewatering, likely once every two to three years. Thus, the O&M costs would likely be significantly higher for this treatment alternative.

Description	Cost	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Pump to Moneta WWTP	\$80,000	\$44,000	\$49,400	2 to 3 months
Infiltration Basins	\$70,000	\$7,000	\$11,700	2 to 3 months
VPDES Discharge	\$3,220,000	\$50,000	\$267,200	6 to 9 months

6.3 Conclusions

Alternative 2 would only be feasible if suitable soils are located on the property, but offers significantly lower lifecycle costs than the other alternatives. The BCPSA should engage an Authorized Onsite Soil Evaluator (AOSE) to perform preliminary soils investigations at the Camp 24. Preferably, an AOSE who is experienced with the soils in the Moneta area should be selected. This investigation is to determine the suitability of the soils to support infiltration basins for backwash disposal.

It is recommended to investigate this alternative more, but in the meantime plan to initially implement Alternative #1 and pump the process wastewater to the Moneta treatment plant via Pump Station #4. In the future, if the Moneta WWTP capacity becomes critical, BCPSA could consider construction of Alternate 3 for backwash disposal and explore the feasibility of discharging into Mattox Creek rather than pumping to Goose Creek, which would lower the cost of a VPDES discharging system. The design of the waste disposal should take into account the future separation of backwash wastes for this scenario. The costs to



upgrade PS #4, separation of backwash waste, and installation of an equalization tank are included in the overall cost estimate for the recommended project in Section 15.

7. Post Treatment

7.1 Advantages and Disadvantages of Alternatives

Alternative 1 considers no post treatment initially, which defers the decision to add post treatment to a later date. This decision would be deferred until such time that it is required by regulation or at such time that the PSA determines that it is needed to meet specific treatment goals. The advantage of the “do nothing” approach is that it reduces the cost of the overall project initially and allows the PSA time to further refine design criteria and to better assess the needs. The disadvantage is that it becomes more difficult to retrofit a plant later with a new process than if it is installed and designed initially. Also, it can be a public relations problem if it is determined that post treatment is needed to provide the quality of water that is required and the PSA has to install additional equipment on a newly constructed plant. This would likely require increased rates to compensate for the additional expenses and not be understood by the PSA’s customer base.

Alternative 2 explores the use of GAC filters, which would require removal and replacement of spent activated carbon. This PER assumes that the GAC is replaced annually. This work is typically contracted due to the need for special handling equipment for the GAC. GAC filters are effective at removing TOC, taste and odor compounds, and have shown promise at removing other emerging contaminants, such as endocrine disruptors and pharmaceuticals. The GAC filtration process is widely studied and utilized, so there is a good body of data and knowledge to select appropriate design conditions to deliver the desired performance.

Alternative 3, ion exchange, would have a similar configuration to the GAC filters, but distinct differences in how it operates. Ion exchange requires regeneration of the media versus replacement of the media. Ion exchange has been used for many years for softening applications using cationic media. The use of anionic ion exchange media for TOC removal is a newer application of ion exchange technology, though one that is showing promising results. Nevertheless, this is a disadvantage since without the wide body of field data; there is some risk that it wouldn’t perform as anticipated. The advantage of ion exchange is that the media can last for many years and is regenerated on-site using brine. The regeneration costs are fairly low since the cost of salt is low. However, the brine must also be disposed of properly. Typically, it is discharged to the sanitary sewer.



7.2 Capital and O&M Cost Comparison

The use of either GAC filters or ion exchange filters for TOC removal was evaluated. This PER assumes that the filters are constructed in a separate building from the main treatment facility, thus include the cost of the building. Both processes would have a similar configuration, but have distinct differences in O&M costs. The GAC filters would require removal and replacement of spent activated carbon. This PER assumes that the GAC is replaced annually. This work is typically contracted due to the need for special handling equipment for the GAC. The O&M costs include labor, electrical costs, salt costs for ion exchange, and GAC replacement for GAC filters.

Description	Cost (Millions)	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
GAC Filters	\$4.73	\$182,000	\$501,000	12 months
Ion Exchange	\$5.02	\$57,000	\$395,500	12 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

7.3 Conclusions

The cost of installing the post-treatment equipment evaluated is fairly high and not required by current regulations if the facility is a direct membrane filtration plant. It is recommended that the BCPSA reserve space on the site for either of these processes in the future, but that post-treatment for TOC removal not be included in the initial project.

8. Finished Water Pumping and Clearwell

8.1 Advantages and Disadvantages of Alternatives

This PER assumes a rectangular concrete tank is used for the clearwell. Rectangular basins are more efficient than circular basins in maximizing baffling usage and allowing high length to width ratios. A partially buried, precast, post-tensioned (AWWA D115) rectangular tank would be used for the membrane filter alternative and a below grade cast-in-place tank would be used for the conventional alternative. It would be easier to access the clearwell for maintenance and inspection if it is outside the treatment building and partially buried, versus cast-in-place below the foundation of the building. Constructing an exterior tank can speed up the construction of the project since the other facilities can be constructed on a parallel track. Using a pre-cast tank can also avoid potential schedule delays due to weather conditions when it may not be conducive to placing cast-in-place concrete.



Split case pumps are assumed to be utilized for the finished water pumps in the case of the membrane alternative. These pumps would be located in either the treatment building or in a pump building adjacent to the clearwell and be connected to the discharge pipe from the clearwell. Vertical turbine pumps would be used for the below grade cast-in-place tank for the conventional alternative. Accessing split case pumps is easier than vertical turbines, although vertical turbines can be more compact than split case pumps and can have slightly greater efficiency than split case pumps.

8.2 Capital and O&M Cost Comparison

The costs for the cast in place and precast clearwell are similar and the decision should be more determined by the PSA's or contractor's preference and schedule than cost. Both can be designed to meet the required performance needs. Similarly, the split case and vertical turbine pumps have similar costs and the decision should be guided more by owner preference. O&M costs for the clearwells were not considered since they are infrequent costs associated with draining and inspecting the tanks. The O&M costs for the finished water pumps are comprised of electrical costs for running the pumps and assumed to be identical since they would be pumping the same flow at similar overall efficiency. The following summarizes the costs of the clearwell. Estimates are in Appendix C.

Description	Cost (Millions)	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Precast Clearwell	\$1.18	\$-	\$79,600	3 to 4 months
Cast In Place Clearwell	\$1.09	\$-	\$73,500	5 to 6 months
Split Case Pumps	\$0.72	\$110,000	\$158,600	2 to 3 months
Vertical Turbine Pumps	\$0.77	\$110,000	\$161,900	2 to 3 months

8.3 Conclusions

Since none of the options are a clear choice on cost, the PSA should determine if they have a preference and make that known to the designer. Vertical turbine pumps are recommended for the raw water pump station, so it may be advantageous to utilize them at the water treatment facility so similar maintenance parts can be kept in stock. On the other hand, maintenance of split case pumps is generally easier since everything is exposed versus turbine pumps. The cost of a precast clearwell and split case pumps is assumed in the overall project cost in Section 15.



9. Disinfection

9.1 Advantages and Disadvantages of Alternatives

Alternative 1 is to use chlorine gas, which is highly effective against most pathogens and provides residual protection in the distribution system. Historically, it has been the most reliable disinfection system and the most cost effective. However, in recent years, concerns for public and operator safety have initiated stricter and more expensive design measures and monitoring requirements. This facility would require ton cylinders that require a separate room for feed equipment, a scrubber system or secondary containment vessels for the ton cylinders, and loading/unloading facilities to handle the cylinders which increase the cost of the chemical feed equipment. Because of the public and operator safety concerns and the likelihood of stricter handling and safety requirements in the future, costs are expected to increase substantially.

Alternative 2 uses sodium hypochlorite and it is increasingly used for disinfection at water utilities due to safer handling requirements and fewer regulations than chlorine gas. However, hypochlorite has a limited shelf life and can produce regulated contaminants that must be controlled through appropriate storage, flushing, and dilution procedures. Use of hypochlorite feed systems typically involves more labor and maintenance than chlorine gas. Particularly due to the corrosive and scale forming tendency of hypochlorite solutions. These problems can be minimized during design by providing flushing facilities and careful attention in the solution piping design and metering pump selection.

9.2 Capital and O&M Cost Comparison

The estimated cost for each of the two systems is tabulated below.

Description	Cost	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Gas Chlorine	\$260,000	\$29,000	\$46,500	<3 months
Hypochlorite	\$180,000	\$50,000	\$62,100	<3 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.

9.3 Conclusions

Despite the higher costs, a sodium hypochlorite feed system is recommended due to the uncertainty of the future use of chlorine gas for water treatment facilities and increased safety and handling risks associated with it.

10. Corrosion Control & Fluoridation

10.1 Advantages and Disadvantages of Alternatives

Based on low corrosion potential of the water, installation of a corrosion inhibitor such as zinc orthophosphate or alkalinity adjustment such as lime is not required at this time. However, it is recommended that space be provided for future addition of corrosion control chemical feed equipment.

The BCPSA doesn't currently practice fluoridation of its water supply. Space should be provided in the treatment plant should they elect to add it in the future.

11. Distribution System Disinfection Byproduct Control

11.1 Advantages and Disadvantages of Alternatives

Alternative 1 considers no distribution system DBP control measures. Historically the PSA has been able to maintain compliance with DBP limits in their system because they practice routine flushing and they maintain relatively low chlorine residual in the system compared to some utilities. The do nothing alternative is not recommended since there are some sections of the PSA's water system that will have relatively low turnover for the foreseeable future. Even if treatment technologies are implemented at the plant that help to manage DPB precursors, it is advisable to have the means to address distribution system DBP issues or other distribution system water quality issues.

Alternative 2 is to install automatic flushing units at key locations in the distribution system to supplement the routine maintenance flushing. Automatic and programmable flushing units can be provided to control the level of chlorine residual in water distribution lines, especially at the dead-ends. The PSA currently utilizes Hydroguard HG-2 automatic flushing and typically flushes each site daily for 1 hour per flush. The advantage of fully automated units would be to reduce O&M costs. As an option, the flushing units can be fitted with telemetry for remote monitoring via SCADA. The costs in this PER assume that no telemetry is included. The disadvantage of flushing is the lost revenue due to wasting potable water. Dechlorination of the waste is also typically required.

Alternative 3 would be to address DBP's in the system at the tanks through aeration. In order to provide the best aeration system, modeling may be required to determine the mixing characteristics of the tank. Water age modeling may also be required. Tank aeration would reduce TTHM but would not be as effective for HAA5 control. There would be additional capital and O&M costs for the aeration system.



Alternative 4 would utilize a liquid ammonia feed system to blend with the chlorine and form chloramine to reduce regulated DBP formation (i.e. TTHM and HAA5) in the distribution system. Liquid ammonia feed systems are similar to other chemical feed systems. One disadvantage of this alternative is the added cost of a separate chemical feed system. In addition, the effect of using chloramine in the distribution system has not been fully realized. Many are concerned that the unregulated DBP's formed by using chloramines may be shown to be more harmful to human health than the currently regulated DBP's. Under certain favorable conditions, bacteria can develop that cause nitrification to occur in the distribution system when chloramines are used. Nitrate and nitrite are the end products of nitrification and both are regulated primary drinking water contaminants. Certain studies have also suggested accelerated rates of corrosion of copper and lead plumbing as a result of chloramines. Another distinct disadvantage of this is that Bedford City does not use chloramination. Thus, there would need to be special consideration of blending issues and notification for customers in Bedford City if they were to receive water that was chloraminated.

11.2 Capital and O&M Cost Comparison

The table below summarizes O&M costs for the various alternatives considered for distribution system DBP control. The liquid ammonia system was based on costs of the liquid ammonia system used at the Blacksburg Christiansburg VPI Water Authority treatment plant. The liquid ammonia system would still require the hypochlorite disinfection facilities be constructed. Automatic flushing costs were estimated based on information provided by Hydro-Guard and assume 10 units would be installed at key locations in the system. For aeration treatment, it is assumed that the New London and Smith Mountain Tanks would have an aeration system installed at an approximate cost of \$75,000 per tank. The O&M costs for aeration include the electrical costs for operating the spray pump and ventilation blower.

Description	Cost	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Flushing	\$220,000	\$30,000	\$44,800	<3 months
Aeration	\$230,000	\$19,000	\$34,500	<3 months
Liquid Ammonia	\$350,000	\$10,000	\$33,600	<3 months

A more detailed breakdown of this preliminary estimate is included in Appendix C.



11.3 Conclusions

Because of the additional cost and increased management requirements to notify customers of chloramination, liquid ammonia as a secondary control for DBP is not recommended at this time. If pre-treatment and post-treatment alone is not sufficient to maintain compliance with DBP rules, automated flushing and tank aeration should be considered for DBP control in the distribution system.

12. Forest Distribution System Analysis

12.1 Advantages and Disadvantages of Alternatives

There weren't alternatives evaluated for this section as in the other sections of the report since the PER basis is that the Forest System will connect to the SML WTP via the proposed transmission mains. The modeling analysis did reveal that there is a decrease in the available fire flow in sections of the Forest system, but that 500 gpm is still maintained on lines 6" and larger. If the reduction in available fire flow is not acceptable to the PSA and County, an alternative that may be considered is installing a PRV at one of the existing Lynchburg Master Meter locations to allow emergency use of Lynchburg water in the event of a fire. The exact configuration of the Master Meter vaults is unknown, but it is assumed that it could accommodate a PRV with some piping modifications. This PER assumes that one of the existing master meter connections to Lynchburg has a PRV installed so that it can serve as an emergency source of water to Forest.

This PER also assumes that the PSA will install new altitude valves at its New London and Althea Grove tanks and a new telemetry controlled valve at the connection to Forest. This valve could have a pressure reducing function since the hydraulic grade from the elevated Smith Mountain Lake Tank is higher than the overflow elevation of the New London and Althea Grove tanks. The normal mode of operation of this valve would be to open and close on command from SCADA. It should be specified to fail in the "open" position so that if the electronics fail the valve remains open. In this case, the altitude valves will prevent the New London and Althea Grove Tanks from overflowing. The PSA would open and close the valve as necessary to allow adequate turnover in the storage tanks. This could be automated by controlling the valve based on level signals from the tanks or it could be based on time, so that the valve opens at night during periods of low demand to refill the tanks, and closes during the day during periods of higher demand so that the tanks are adequately drawn down.

12.2 Capital and O&M Cost

The 2010 *Lakes-Bedford-Forest Water Supply Evaluation* considered the capital costs of the transmission mains that connect the proposed SML WTP to the Forest area and included \$50,000 for a mainline PRV in a future phase of improvements, but didn't include the



cost of any improvements to the Forest system. The system improvements considered in this PER assume that the PRV is installed now and includes a telemetry control function and a manual bypass valve. Thus, the capital and O&M costs associated with the improvements is summarized below:

Description	Cost	O&M Cost	25 Year Equivalent Annual Cost	Construction Period
Master Meter PRV	\$34,000	\$0	\$2,300	<3 months
Altitude Valves	\$68,000	\$0	\$4,600	<3 months
Telemetry Controlled Valve & Vault	\$134,000	\$0	\$9,000	<3 months

12.3 Conclusions

Switching the water source from Lynchburg to the SML WTP for the Forest area provides the minimum required available fire flow of 500 gpm on lines 6" and larger, thus appears to meet current standards. However, there is a decrease in available fire flows in this scenario versus the current supply from Lynchburg. If available fire flows in the proposed water system are not deemed adequate, then one or more of the master meters can be converted to an emergency connection with a PRV to supply flow into the Forest service area only during a fire flow event. This PER assumes conversion of at least one of the existing master meters for this purpose.

13. SCADA and Instrumentation

13.1 Advantages and Disadvantages of Alternatives

SCADA system alternatives were not evaluated in this study as any SCADA system implemented will need to be compatible with BCPSA's current SCADA system. However, minimum SCADA system components were identified for both a conventional and membrane treatment process. Since the membrane filtration is the recommended treatment process, this section focuses on SCADA for membranes only.

The membrane treatment process relies on instrumentation and controls to monitor and control the process and while the membrane processes can be manually initiated and controlled, it isn't practical to do so. Typically, the membrane filtration system has a complex control system and the membrane filter manufacturer is responsible for programming the PLC(s) to respond to process variables in a manner to sustain the operation of the filters. This high degree of automated control and monitoring with membrane systems can reduce the need for an



operator to constantly monitor the process. A related disadvantage is that the controls and instrumentation require careful calibration to work properly, and must be kept working for the process to work properly.

13.2 Capital and O&M Cost Comparison

The costs for instrumentation and controls required for a SCADA system were included in each component of the treatment process requiring controls. Thus, no separate cost estimate is provided. O&M costs typically include the annual costs of calibration of sensors, and any consumable items used for the water quality sensors, such as reagents and buffer solutions.

13.3 Conclusions

Both an internal SCADA system and external SCADA system are required for the recommended treatment process. The PSA should consider the additional inputs/outputs for this system if there are any considerations to upgrades to their existing SCADA system prior to the proposed project. A piping and instrumentation diagram (P&ID) schematic for the proposed treatment system is included in Appendix A.

14. Summary of Recommended Process Alternatives

Based on the evaluation of process alternatives in this section, the recommended facilities and process streams are described below. A conceptual process diagram is provided in Figure E-3.14. Conceptual site plans for the Intake Pump Station and WTP and a conceptual floor plan for the WTP are located in Appendix A.

Raw water pumps located at the lake intake would draw lake water from the intake screens and pump them through a new 30-inch raw water line to the raw water tank located at Camp 24 treatment plant site. Two separate intake screens and pipes would convey water to a raw water wetwell. The raw water pumps would be three vertical turbine pumps mounted above the wetwell. Liquid sodium permanganate would be injected into the 30-inch raw water line at the High Point WTP to provide approximately 2 hours of contact time prior to entering the new raw water tank located at the SML WTP. The raw water tank would be approximately 250,000 gallons and provide flooded suction to four raw water feed pumps (three duty, one standby). These pumps would transfer water through three automatic backwashing 400-micron strainers, through the membrane filter racks, to a 400,000-gallon clearwell. Sodium hypochlorite would be injected in a vault prior to the clearwell. A clean-in-place and air system would be provided to chemically clean and air scour the membranes during cleaning and backwash operations.

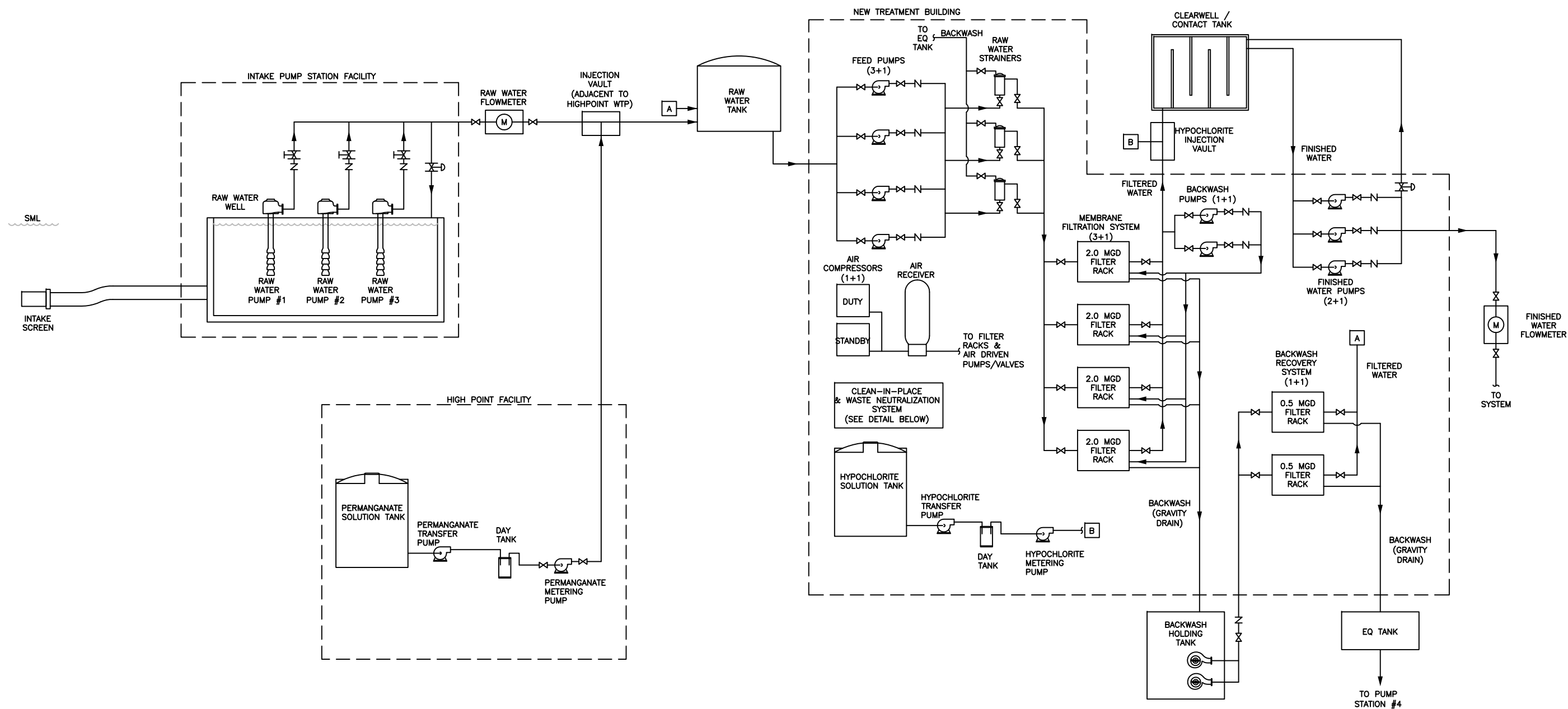


The clearwell tank would have internal baffling to maximize contact time and is assumed to be a partially buried precast post-tensioned concrete tank. Operation of the membrane filter units would be controlled from the water level in the clearwell. From the clearwell, three split case finished water pumps (two duty, one standby) would pump finished water to the distribution system. The SCADA system would call for the finished water pumps to run based on the Smith Mountain Lake Water Tank level. A second sodium hypochlorite injection point would be located after the finished pump discharge should additional chlorine need to be added to maintain adequate concentrations in the distribution system.

A sidestream treatment utilizing GAC filters or anionic exchange filters between the membrane filters and clearwell is considered for the future for removal of TOC's and other emerging contaminants. Space is reserved in the conceptual site plan for this facility, but it assumed to not be included in the initial project.

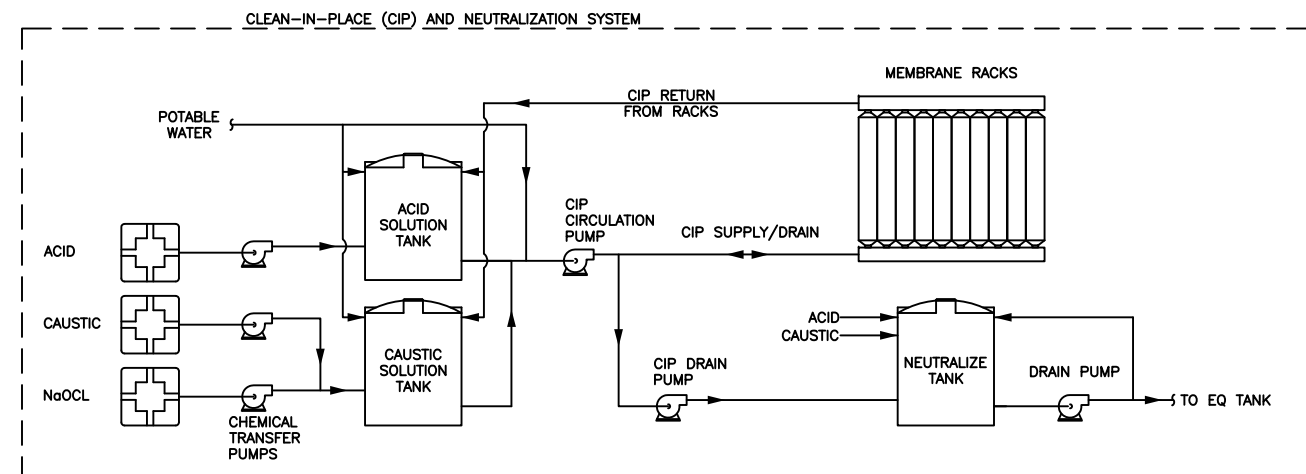
Backwash waste will be discharged to an equalization/holding tank with at least 30,000 gallons of volume. Submersible pumps will transfer the backwash from this tank to two pre-engineered Pall AP-4 membrane skids relocated from the existing High Point WTP. The skids will filter the backwash water and transfer it back to the raw water tank. Backwash from these tanks will be drained to another equalization/holding tank that drains to the existing Pump Station #4 at the Camp 24 site. The backwash waste will then be pumped from here to the Moneta WWTP for treatment and disposal.

A waste neutralization system will be provided to capture, neutralize, and pump the CIP waste to the equalization/holding tank prior to draining to Pump Station #4.



LEGEND

X VALVE
 N CHECK VALVE
 S SURGE RELIEF VALVE
 C CENTRIFUGAL PUMP
 V VERTICAL TURBINE PUMP
 S SUBMERSIBLE PUMP





15. Total Project Cost

The total project cost for the recommended alternatives are summarized below. Related costs and contingency are assumed to be 30% of the total construction costs. The annual cost is based on a loan period of 25 years and an interest rate of 4.5%.

System	Alternative Cost	Related Cost	Total Project Cost	Annual O&M Costs
Intake	\$790,000	\$240,000	\$1,030,000	\$9,000
Intake Pump Station	\$1,650,000	\$500,000	\$2,150,000	\$138,000
Raw Water Main	\$2,210,000	\$660,000	\$2,870,000	\$10,000
Pretreatment	\$70,000	\$20,000	\$90,000	\$20,000
Treatment Plant	\$8,290,000	\$2,490,000	\$10,780,000	\$390,000
Backwash Treatment	\$250,000	\$80,000	\$330,000	\$62,000
Backwash Disposal	\$60,000	\$20,000	\$80,000	\$44,000
Clearwell	\$910,000	\$270,000	\$1,181,000	\$0
Finished Water Pumps	\$550,000	\$170,000	\$720,000	\$110,000
Disinfection	\$140,000	\$40,000	\$180,000	\$50,000
Forest System Improvements	\$181,000	\$55,000	\$236,000	\$0
TOTAL	\$15,101,000	\$4,545,000	\$19,646,000	\$833,000

Annual O&M costs are tabulated with this table and assume operational staffing costs at \$70 per man hour and electrical costs at \$0.10 per kilowatt hour. The O&M costs also assume that the 6.0 MGD facility is operated approximately 50% of the time to produce 3.0 MGD average daily flow. As the overall system demand increases and the plant operates more hours per day, the operating costs will increase accordingly.



F. STAFFING

1. General

The new SML WTP will require an appropriate level of staffing and management to operate successfully. Furthermore, the BCPSA must consider the additional oversight required of the facilities it will acquire through the consolidation process with Bedford City. This section outlines minimum standards and requirements that should be considered when making decisions about how to staff in the future.

2. Management

Management of the new SML WTP will be organized into a hierarchy of managers, supervisors, and staff as shown in F-2.1. Typical qualifications and duties for these positions are described. A strong management team and structure with well-defined policies and procedures would be paramount to the successful operation and management of a large facility. Since this facility would be the largest facility managed by the BCPSA, additional training and outside management consulting may be beneficial to help the existing staff and managers prepare themselves for this challenge.



Figure F-2.1 – SML WTP Management Hierarchy

Title	Qualifications	Responsibilities
Executive Director	Direct experience managing a large utility	Determines overall departmental organization, mission, core services, and allocation of financial, human, and capital resources.
	College degree with advanced degree or training preferred	Develops and manages department goals and priorities.
	Proven leadership skills	Serves as representative of BCPSA with outside local, state, and federal agencies.
		Updates Board of Directors at monthly meetings and brings decisions to them that require Board actions
Operations Manager	Engineering or operations experience	Plans, directs, supervises, and evaluates utility operations and programs including water, wastewater, and stormwater.
	College degree with PE license desired	Manages capital improvement projects, and administers annual capital and operating budgets.
	Good organizational and time/project management skills	Ensures compliance with safety rules, and monitors accident investigations conducted by supervisors.
Water Superintendent	Operational and maintenance experience	Oversees the general operations of water utility workers in the field.
	HS diploma and Class 1 Waterworks License	Creates work schedules for employees.
	Effective communication and leadership skills	Makes budget requests for capital and operations budget.
		Prepares and submits correspondence with state agencies, such as Monthly Operating Reports.
Lead Operator	Operational and maintenance experience	Directly supervises operators and assigns daily work tasks.
	HS diploma and Class 3 Waterworks License	Supervises and monitors equipment operation to ensure safety of employees.
	Self directed and effective troubleshooting skills	Prepares daily operating reports.
		Coordinates laboratory sampling.
Operator	Operational and maintenance experience	Operates, monitors, adjusts, controls, and repairs equipment, valves, and pumps.
	HS diploma and Class 4 Waterworks License	Performs plant maintenance.
	Quick learner and team player	Handles and adds chemicals to processes as required.
		Records data such as residual content of chemicals, water turbidity, and water pressure.



G. PROJECT PLANNING

1. General

The BCPSA has started their project development efforts early enough to allow adequate time to meet the December 2016 deadline for connection to the City of Bedford as described in the approved reversion agreement document. However, because of the scope of the project, BCPSA should engage the services of an A/E firm for the design of the water treatment facility as soon as possible. The proposed treatment plant site at Camp 24 will need to be surveyed prior to commencing design.

2. Schedule

A proposed project schedule is provided in Appendix E. Based on a traditional design/bid/build delivery process, key dates are as follows:

ITEM	RESPONSIBLE PARTIES	DATE
Execute Design Contract	BCPSA	05/2013
Submit Plans & Specs	Engineer	07/2014
Review Plans & Specs	VDH	10/2014
Advertise for Bids	BCPSA	11/2014
Award Bids	BCPSA	01/2015
Issue Notice to Proceed	BCPSA	02/2015
Begin Construction	Winning Bidder	03/2015
Complete Construction	Winning Bidder	12/2016
Issue Engineer's Certification	Engineer	01/2017

Though the schedule appears to have adequate time for a traditional design/bid/build project delivery method, alternative project delivery methods should be explored, including design/build and the PPEA process. These have the ability to expedite the process and can free up the limited BCPSA staff resources that would otherwise be closely engaged with the A/E firm in a traditional design/bid/build process.

3. Funding

Various funding agencies could potentially be utilized for project funding on the SML WTP project. The planning factors in this report have assumed a rate of 4.5% for 25 years to reflect a conservative evaluation of the proposed debt service to be incurred for each alternative. A separate financial evaluation has been performed by Morgan Keegan titled "Financial Impact Study of Future Capital Projects" dated December 13, 2011. The study assumed a rate of 4.5% for 25 years. The Morgan Keegan evaluation indicated that the recommended improvements are financially feasible. It is recommended that BCPSA reassess the financial assessments prepared by Morgan Keegan with updated project costs developed in this report.



The following agency funding programs should be explored for procurement of funding for this project:

Virginia Department of Health Drinking Water State Revolving Fund -

The core program rate is set at 1% below the current market interest rate for municipal 20 year AA revenue bonds. Historically the core program rate has been between 2.2% and 3.5%. This funding source would have to be coupled with another source to complete the recommended project or phasing could be implemented to bridge across multiple funding years. In addition, this program is subject to availability fluctuation depending on the fiscal budget each year. This is a competitive funding program and priority is given to remedying current and potential health issues.

Virginia Resource Authority Pooled Financing Program – This program utilizes AAA/AA interest rates and loan terms up to 30 years. \$750,000 is recommended minimum loan size and this program is very flexible.

Of these alternatives, the Virginia Resource Authority Pooled Financing Program is likely to provide the most favorable loan terms and project control to the PSA. The PSA may also consider alternative financing arrangements proposed in PPEA submittals. It is recommended the PSA also explore the options of partnerships with other agencies, such as WVWA, in providing financial contributions to this project since it provides a regional benefit to these agencies. A regional approach to the project will be viewed very favorably by all funding programs and this scenario will open the door for other grant opportunities such as the Tobacco Commission and Economic Development Association. These programs can provide significant grant monies if the project is determined to improve opportunity for job creation or retention. The reversion process is providing opportunities for synergy and partnering for the entire region. This project could play a significant role in this regard and provide opportunities for economic growth.



H. **RECOMMENDATIONS**

1. **General**

The following are a list of recommendations for advancing the SML WTP project:

1. A fixed intake is recommended using two 30-inch intake pipes and two 44-inch tee screens. This provides the most flexibility and access for maintenance at the intake location.
2. Vertical turbine submersible pumps are recommended for the raw water pumps. The intake pump station will require a great deal of public participation from stakeholders in order to be accepted by the public. It is recommended that the BCPSA initiate this design as soon as possible and consider inviting the public to one or more public workshops to seek input on the design of the structure.

The raw water pumps will add significant electrical load to the electrical distribution system. BCPSA should initiate contact with the electrical utility provider to discuss the anticipated load and frequency of operation of the pumps in order to determine if the existing electrical infrastructure has adequate capacity.

A 30 inch raw water main from the intake pump station to the proposed SML WTP is recommended. This will allow for the future 12 MGD capacity plant without the need to increase the raw water force main size. The BCPSA should explore the alternative shorter raw water pipe alignment with the power utility and property owners.

3. Permanganate injection is recommended as a pretreatment means for oxidation of organic matter and reduction of taste and odor compounds. The ideal location will be at a vault located near the High Point WTP to provide adequate reaction time with the raw water. Chlorine dioxide or other pretreatment chemicals may be considered in the future should permanganate alone not be effective.
4. The recommended treatment system for the Smith Mountain Lake Water Treatment Plant (WTP) is a pressurized membrane filtration system, similar to the existing High Point WTP but larger in scale. The process has been proven reliable utilizing Smith Mountain Lake as the water source. The flexibility of the membrane filters to increase or decrease production as needed to accommodate fluctuating demands is also an advantage over conventional filtration. Furthermore, reduced staffing and attendance requirements for membrane filtration facilities greatly reduce operating costs versus a conventional facility. Finally, membrane filtration is considered a best available treatment technology that has the ability to meet future regulations.



5. Membrane filters are recommended as backwash recovery equipment since they can achieve a high recovery percentage and minimize the amount of backwash to be discharged. The BCPSA should plan to relocate the existing AP4 membrane filter units from the High Point WTP and utilize them for backwash recovery units at the SML WTP.
6. Pumping the backwash waste to the Moneta WWTP is recommended for backwash disposal initially. Provided that the soils are suitable and there is enough area for infiltration basins, the BCPSA should consider on-site disposal as a future option, as well as further investigation of a direct discharge at Mattox Creek.
7. No post treatment alternatives are recommended at this time. However, space should be reserved on the site and piping configured with the design for future consideration of either GAC filters or ion exchange filters.
8. Either split case pumps or vertical turbine pumps are suitable for finished water pumps for the proposed SML WTP. This decision is more a matter of preference, though the split case pumps may offer a slight advantage in capital costs and access for maintenance. Either a precast or cast in place concrete clearwell can be utilized. Preferably, the structure will be rectangular with internal baffling to create a serpentine flow pattern with a high length/width ratio to maximize the disinfection efficiency.
9. Sodium hypochlorite is recommended for disinfection due to the potential for future availability and regulatory scrutiny of chlorine gas.
10. No corrosion control or fluoride is recommended initially. Space should be allocated at an appropriate location in the WTP facility for adding both in the future.
11. Distribution system DBP control other than pretreatment is not recommended with the project initially. If the water quality in Smith Mountain Lake degrades significantly in the future, this may need to be reexamined. The BCPSA will need to evaluate its Stage 2 DBPR monitoring locations with the connection to Forest.
12. Add new altitude valves at the Althea Grove and New London tanks and a telemetry controlled pressure reducing valve at the connection of the proposed 20" transmission main to the Forest System on Route 460.
13. Retain at least one existing connections with the City of Lynchburg to be used in the event of an emergency, including a fire. Add a pressure reducing valve at the connection to limit the use to times when there is a major draw on the Forest system.
14. The proposed SML WTP will have an extensive internal SCADA system to control plant processes. Incorporate the new water treatment plant, pretreatment facilities, and raw water pump station into the BCPSA's existing SCADA system.



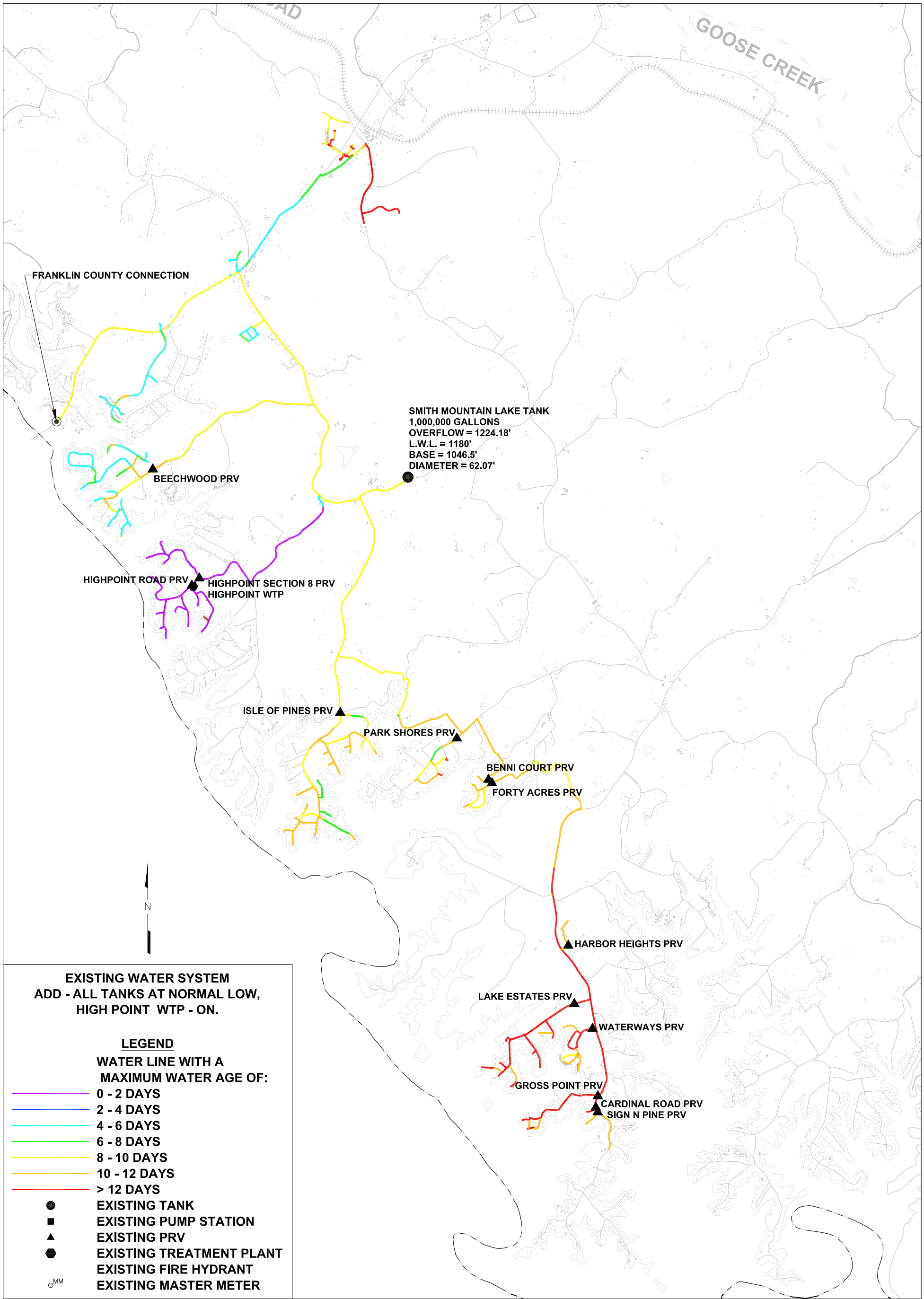
15. The High Point WTP is recommended to be utilized as a maintenance and storage building for the Authority, as well as the location of pretreatment dosing equipment. Utilizing the High Point WTP as a pretreatment facility will allow adequate room for a variety of pretreatment options for the BCPSA. The exterior glass lined bolted steel tanks could be removed and salvaged for scrap value in order to minimize the visual impact of the facility.



APPENDIX A

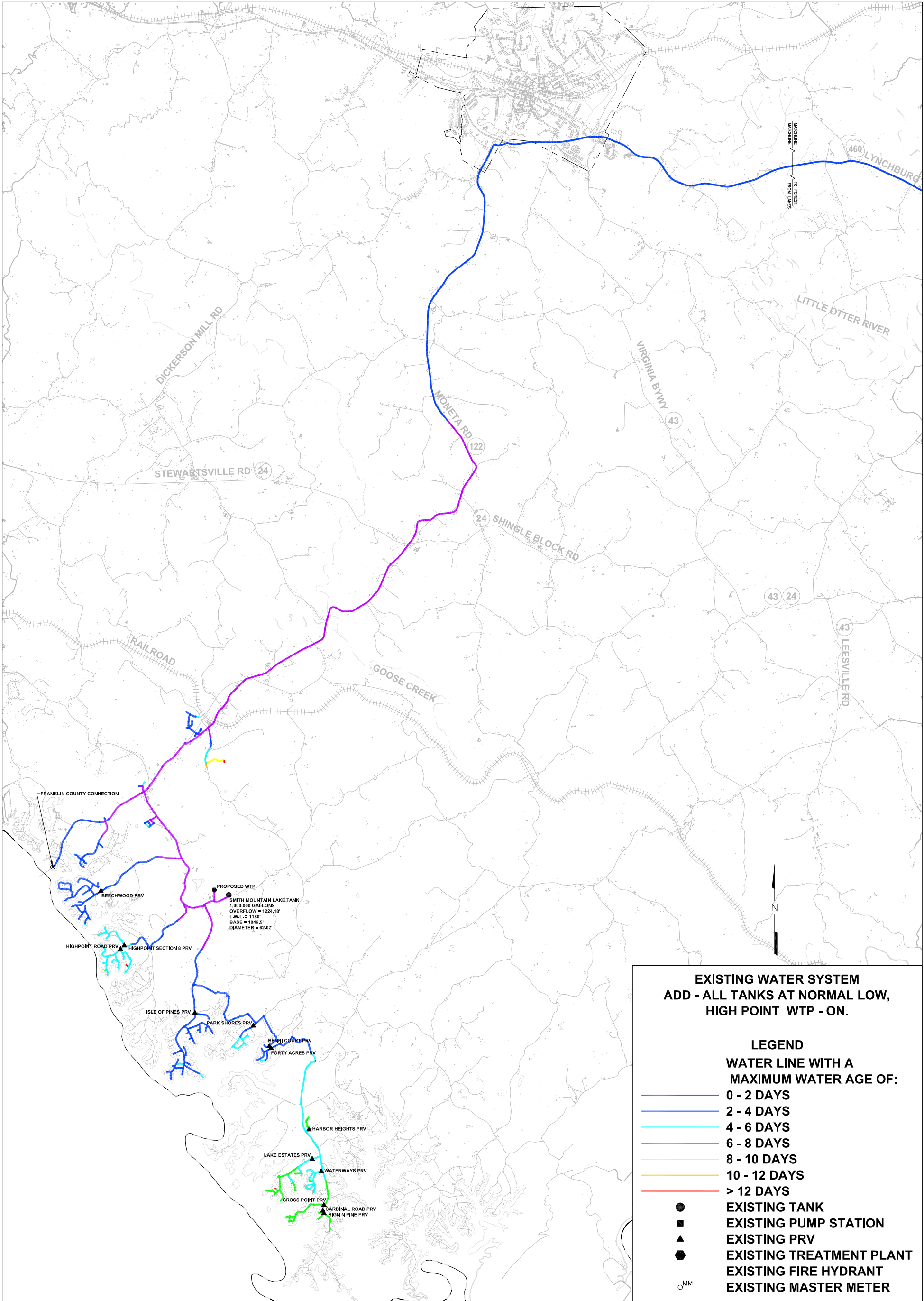
CONCEPTUAL PLANS AND DIAGRAMS

BEDFORD COUNTY PSA WATER SYSTEMS



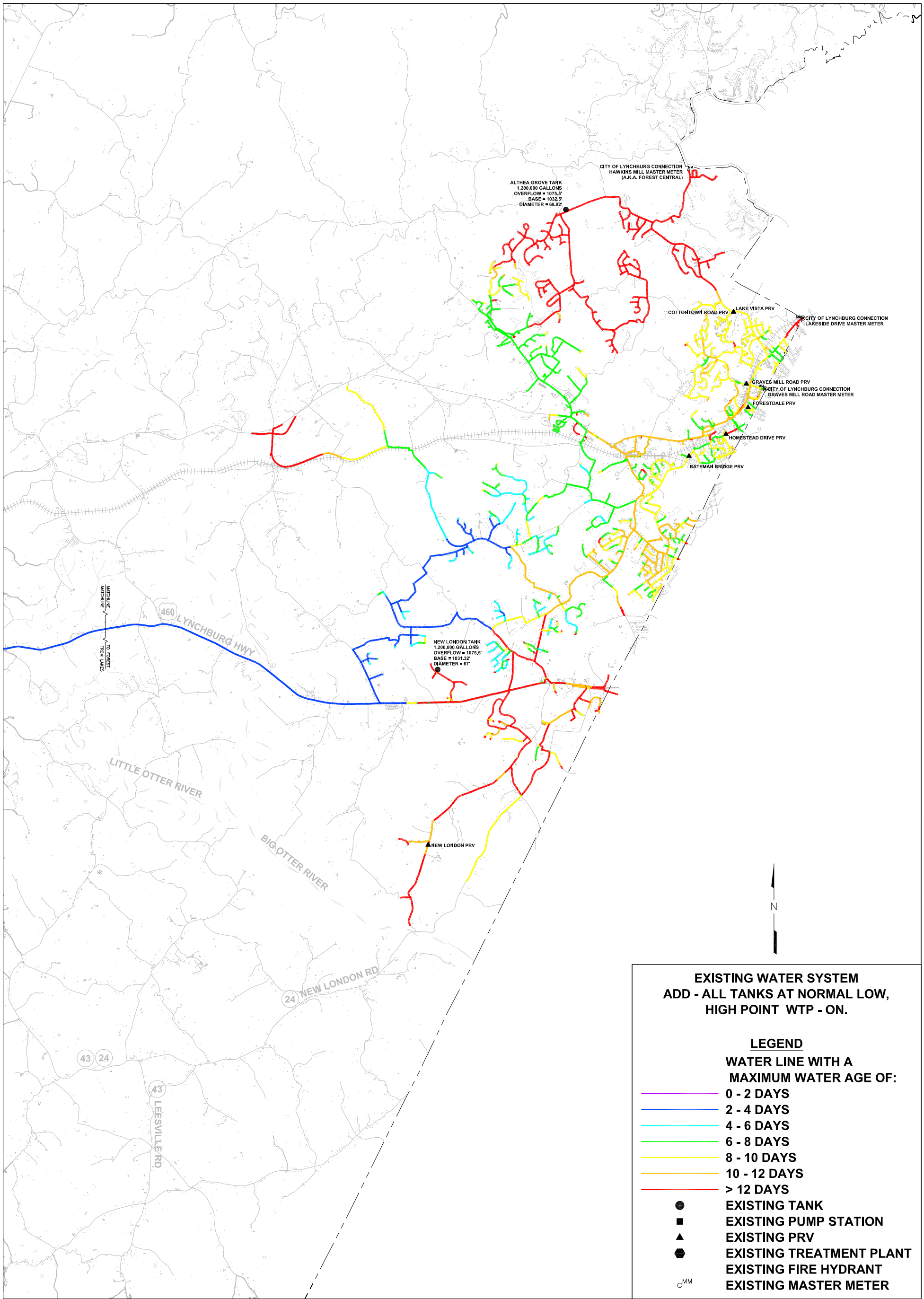
**EXISTING LAKES WATER SYSTEM
WATER AGE EXHIBIT
MAY 10, 2013**

BEDFORD COUNTY PSA WATER SYSTEMS



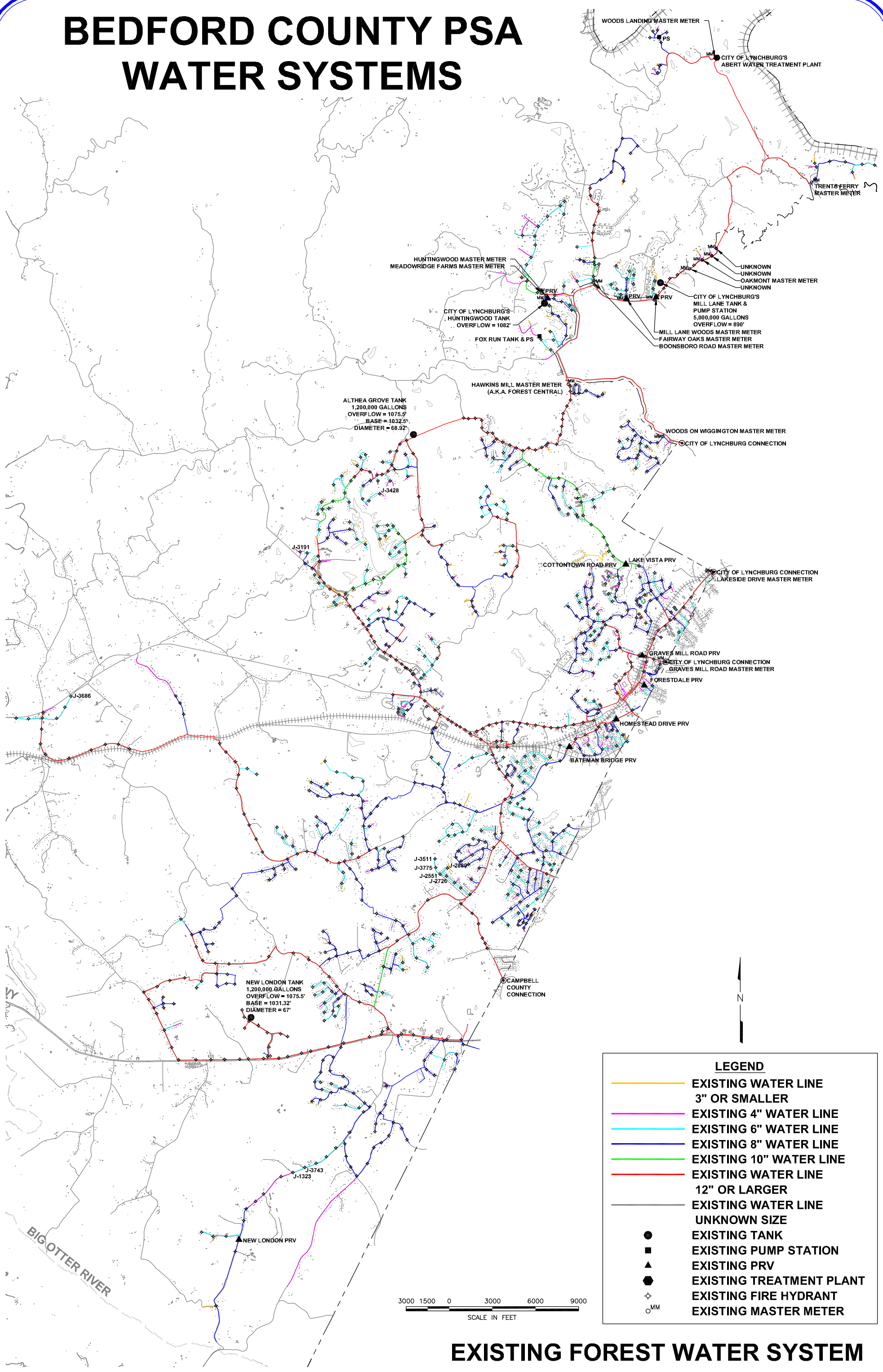
PROPOSED LAKES WATER SYSTEM WATER AGE EXHIBIT MAY 10, 2013

BEDFORD COUNTY PSA WATER SYSTEMS



**PROPOSED FOREST WATER SYSTEM
WATER AGE EXHIBIT
MAY 10, 2013**

BEDFORD COUNTY PSA WATER SYSTEMS



LEGEND

EXISTING WATER LINE
3" OR SMALLER

EXISTING 4" WATER LINE

EXISTING 6" WATER LINE

EXISTING 8" WATER LINE

EXISTING 10" WATER LINE

EXISTING WATER LINE
12" OR LARGER

EXISTING WATER LINE
UNKNOWN SIZE

EXISTING TANK

EXISTING PUMP STATION

EXISTING PRV

EXISTING TREATMENT PLANT

EXISTING FIRE HYDRANT

EXISTING MASTER METER

EXISTING FOREST WATER SYSTEM
JANUARY 30, 2013

BEDFORD COUNTY PSA WATER SYSTEMS

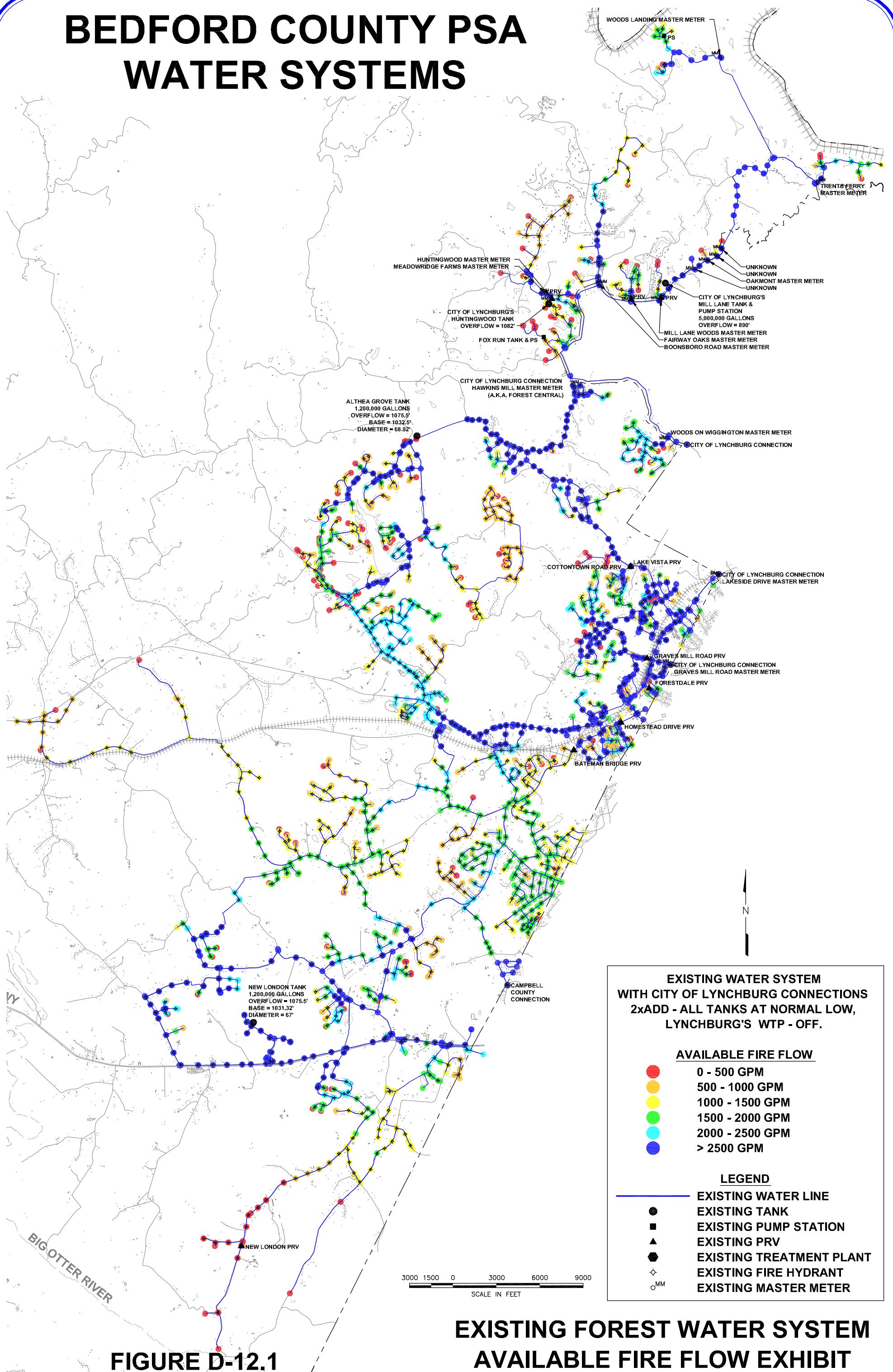


FIGURE D-12.1

**EXISTING FOREST WATER SYSTEM
AVAILABLE FIRE FLOW EXHIBIT
JANUARY 30, 2013**

BEDFORD COUNTY PSA WATER SYSTEMS

The map displays the Bedford County Public Service Area (PSA) water system. It includes the proposed Forest Water System, which is a network of water lines and tanks. The map also shows the available fire flow exhibit, which is a network of water lines and tanks. The map includes a legend, a scale bar, and a north arrow. The legend defines the symbols for existing water lines, tanks, pump stations, PRVs, treatment plants, fire hydrants, and master meters. The scale bar shows distances in feet, ranging from 0 to 9000. The north arrow points towards the top of the map.

**PROPOSED WATER SYSTEM
WITHOUT CITY OF LYNCHBURG CONNECTIONS
2xADD - ALL TANKS AT NORMAL LOW,
BCPSA HIGH POINT TRANSMISSION LINE - CLOSED.**

AVAILABLE FIRE FLOW

- 0 - 500 GPM
- 500 - 1000 GPM
- 1000 - 1500 GPM
- 1500 - 2000 GPM
- 2000 - 2500 GPM
- > 2500 GPM

LEGEND

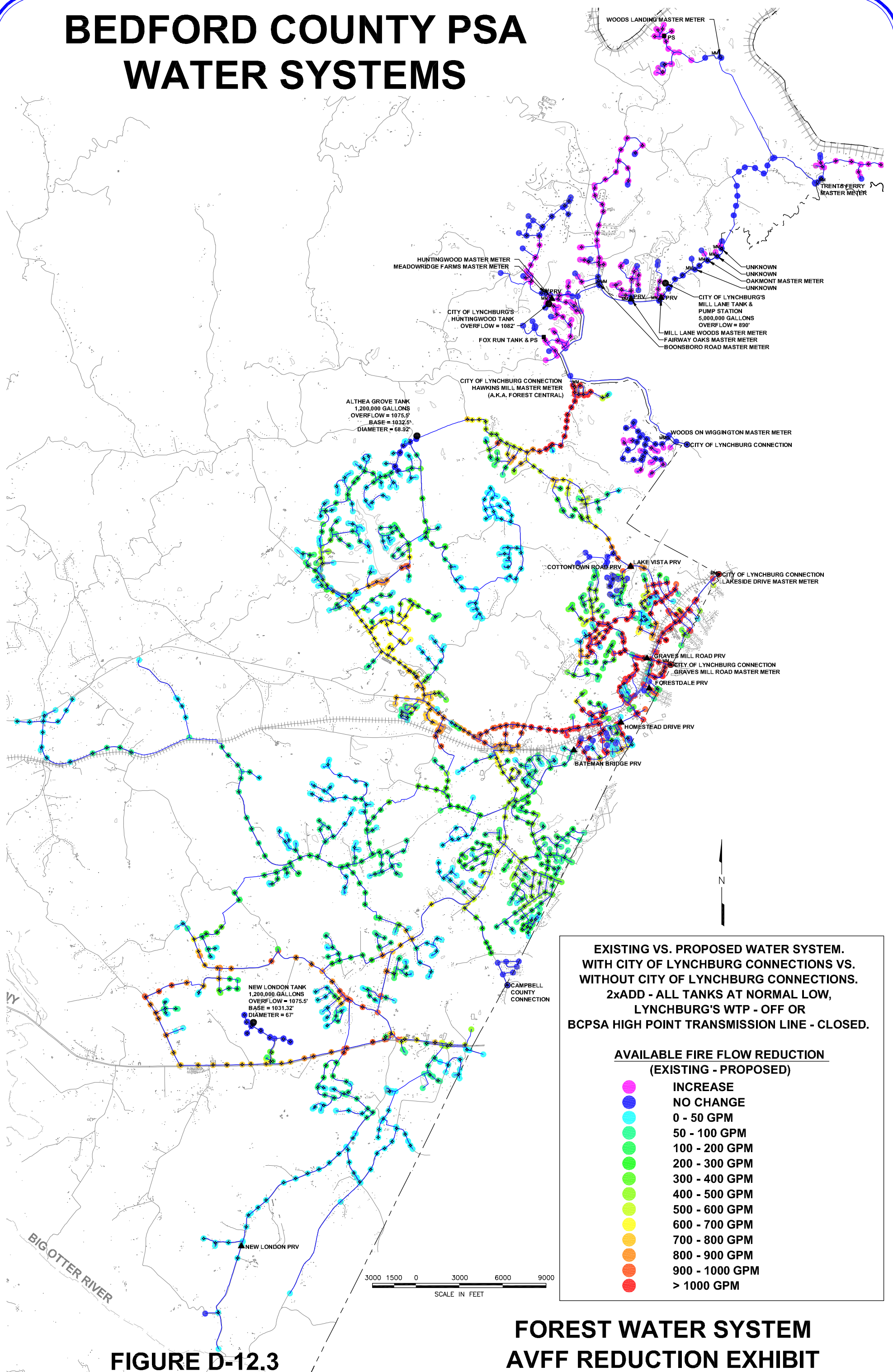
- EXISTING WATER LINE
- EXISTING TANK
- EXISTING PUMP STATION
- EXISTING PRV
- EXISTING TREATMENT PLANT
- EXISTING FIRE HYDRANT
- EXISTING MASTER METER

**PROPOSED FOREST WATER SYSTEM
AVAILABLE FIRE FLOW EXHIBIT**

FIGURE D-12.2

**PROPOSED FOREST WATER SYSTEM
AVAILABLE FIRE FLOW EXHIBIT
JANUARY 30, 2013**

BEDFORD COUNTY PSA WATER SYSTEMS

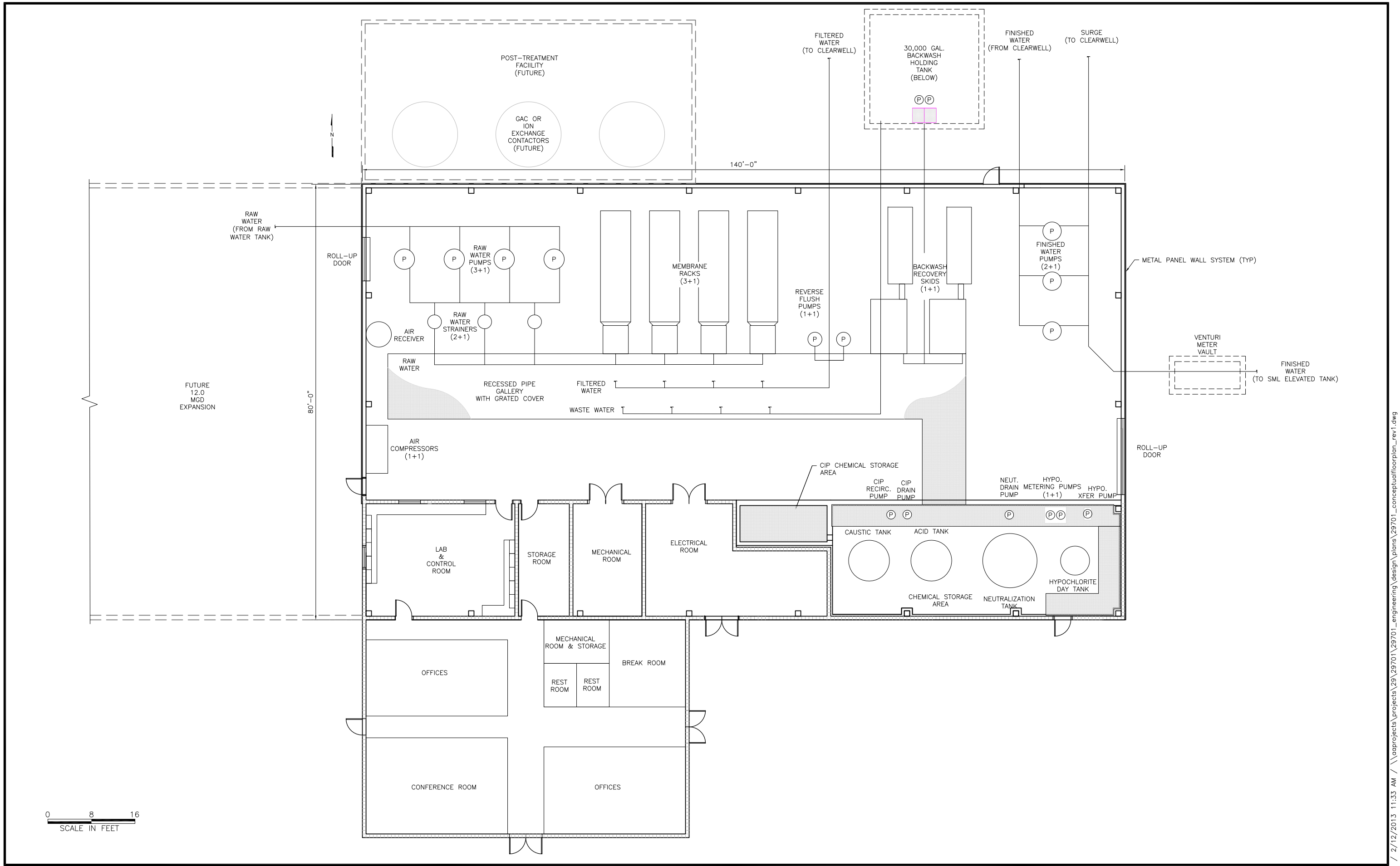






 ANDERSON & ASSOCIATES, INC. Professional Design Services 100 Ardmore St. Blacksburg, Va. 24060 540-552-5592	DATE : DESIGNED : DRAWN : CHECKED : QA / QC :	REV.# COMMENTS DATE	SMITH MOUNTAIN LAKE WTP PRELIMINARY ENGINEERING REPORT BEDFORD COUNTY, VA	CONCEPTUAL SITE PLAN WATER TREATMENT PLANT	DOCUMENT NO. 29701 - 002 SHEET 1 OF 1
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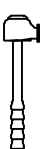









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ABBREVIATIONS

AAH	ANALYSIS ALARM HIGH
AAH/L	ANALYSIS ALARMS, HIGH & LOW
AI	ANALOG INPUT OR ANALYSIS INDICATION
AIT	ANALYSIS INDICATOR TRANSMITTER
AO	ANALOG OUTPUT
AR	ANALYSIS RECORDER (TRENDING)
BI	BINARY INPUT
BO	BINARY OUTPUT
BW	BACKWASH
CL2	CHLORINE
CW	CLEARWELL
EQ	EQUALIZATION
ETR	EXISTING TO REMAIN
FAH/L	FLOW ALARMS, HIGH & LOW
FC	FLOW CONTROLLER
FE	FLOW ELEMENT
FI	FLOW INDICATION
FNW	FINISHED WATER
FQI	FLOW TOTALIZER / INDICATOR
FR	FLOW RECORDER
FT	FLOW TRANSMITTER
FW	FILTERED WATER
FW	FILTERED WATER
GPM	GALLONS PER MINUTE
HOA	HAND-OFF-AUTOMATIC
HS	HAND SWITCH
IPS	INTAKE PUMP STATION
JS	POWER SWITCH (MOTOR STARTER)
LAH/L	LEVEL ALARMS, HIGH & LOW
LAHH	LEVEL ALARM HIGH-HIGH
LALL	LEVEL ALARM LOW-LOW
LI	LEVEL INDICATOR
LR	LEVEL RECORDER
LSHH	LEVEL SWITCH HIGH-HIGH
LSLL	LEVEL SWITCH LOW-LOW
LT	LEVEL TRANSMITTER
PAH/L	PRESSURE ALARMS, HIGH & LOW
PER	PERMANGANATE
pH	POSITIVE HYDROGEN ION
PI	PRESSURE INDICATION
PLC	PROGRAMMABLE LOGIC CONTROLLER
PMR	PHASE MONITORING RELAY
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TRANSMITTER
RC	RATIO CONTROLLER
RTI	RUNNING TIME INDICATION
RW	RAW WATER
RWT	RAW WATER TANK
RWW	RAW WATER WELL
SA	STATUS ALARM
SC	SPEED CONTROLLER (ADJUSTABLE FREQUENCY DRIVE)
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SI	STATUS INDICATION
SML	SMITH MOUNTAIN LAKE
SPA	SETPOINT ADJUST
SPI	SETPOINT INDICATION
TAH/L	TEMPERATURE ALARMS, HIGH & LOW
TEMP	TEMPERATURE
TI	TEMPERATURE INDICATION
TR	TEMPERATURE RECORDING (TRENDING)
TT	TEMPERATURE TRANSMITTER
TUR	TURBIDITY
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VALE	VOLTAGE ALARM LIMITS EXCEEDED
WAH/L	WEIGHT ALARMS, HIGH & LOW
WI	WEIGHT INDICATION
WR	WEIGHT RECORDING (TRENDING)
WT	WEIGHT TRANSMITTER
WTP	WATER TREATMENT PLANT

LEGEND

	VALVE
	CHECK VALVE
	SURGE RELIEF VALVE
	CENTRIFUGAL PUMP
	VERTICAL TURBINE PUMP
	SUBMERSIBLE PUMP
	ETHERNET SIGNAL
	INTERNET
	INSTRUMENT, FIELD-MOUNTED
	INSTRUMENT, INSIDE-OF-PANEL-MOUNTED
	PLC I/O, INSIDE-OF-PANEL
	SCADA HMI

506-069



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QA / QC : WGM

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COMMENTS

DATE

SMITH MOUNTAIN LAKE WTP
PRELIMINARY ENGINEERING REPORT
BEDFORD COUNTY, VA

LEGEND & ABBREVIATIONS

DOCUMENT NO.

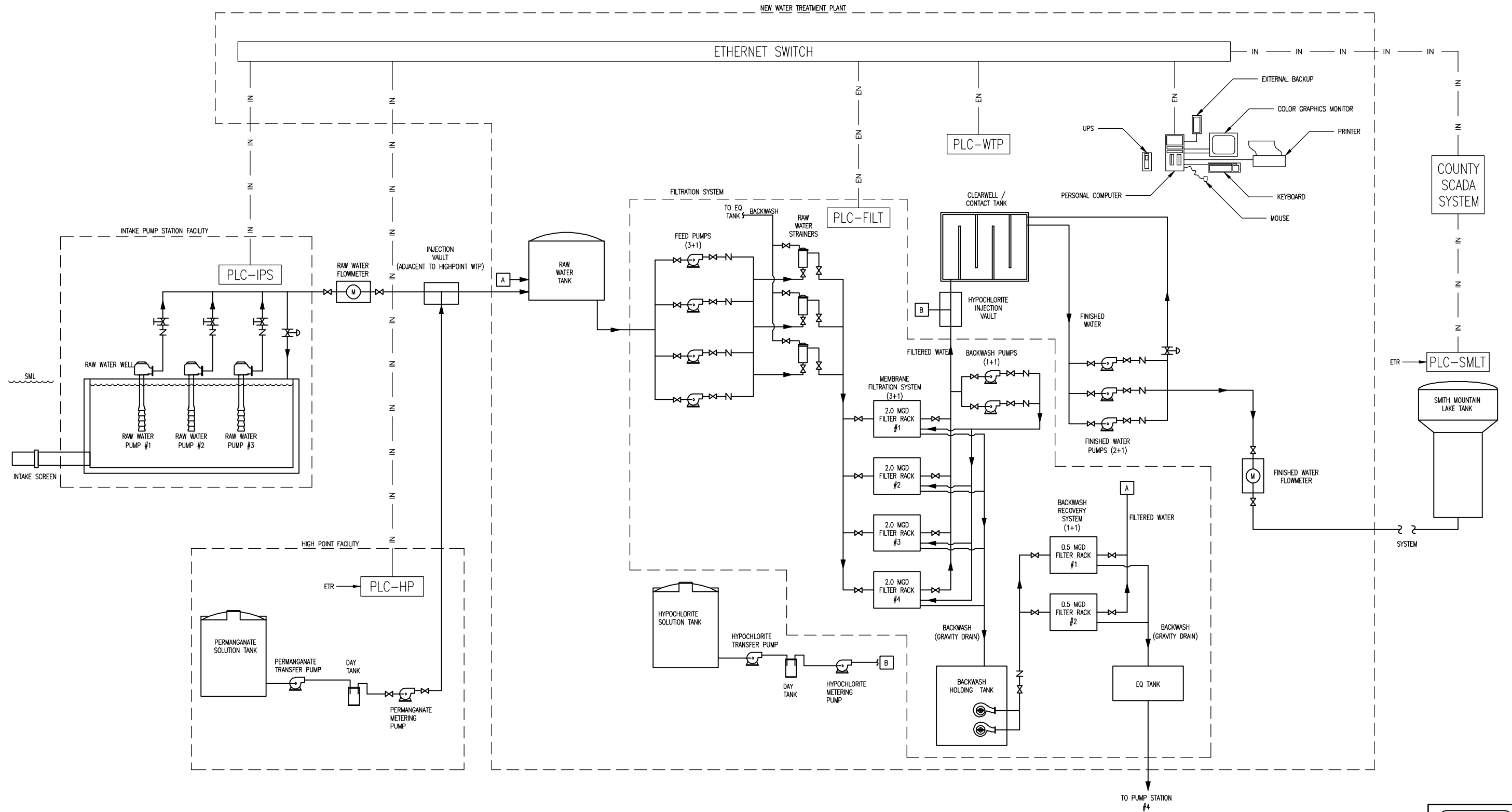
29701 — 002

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506-069



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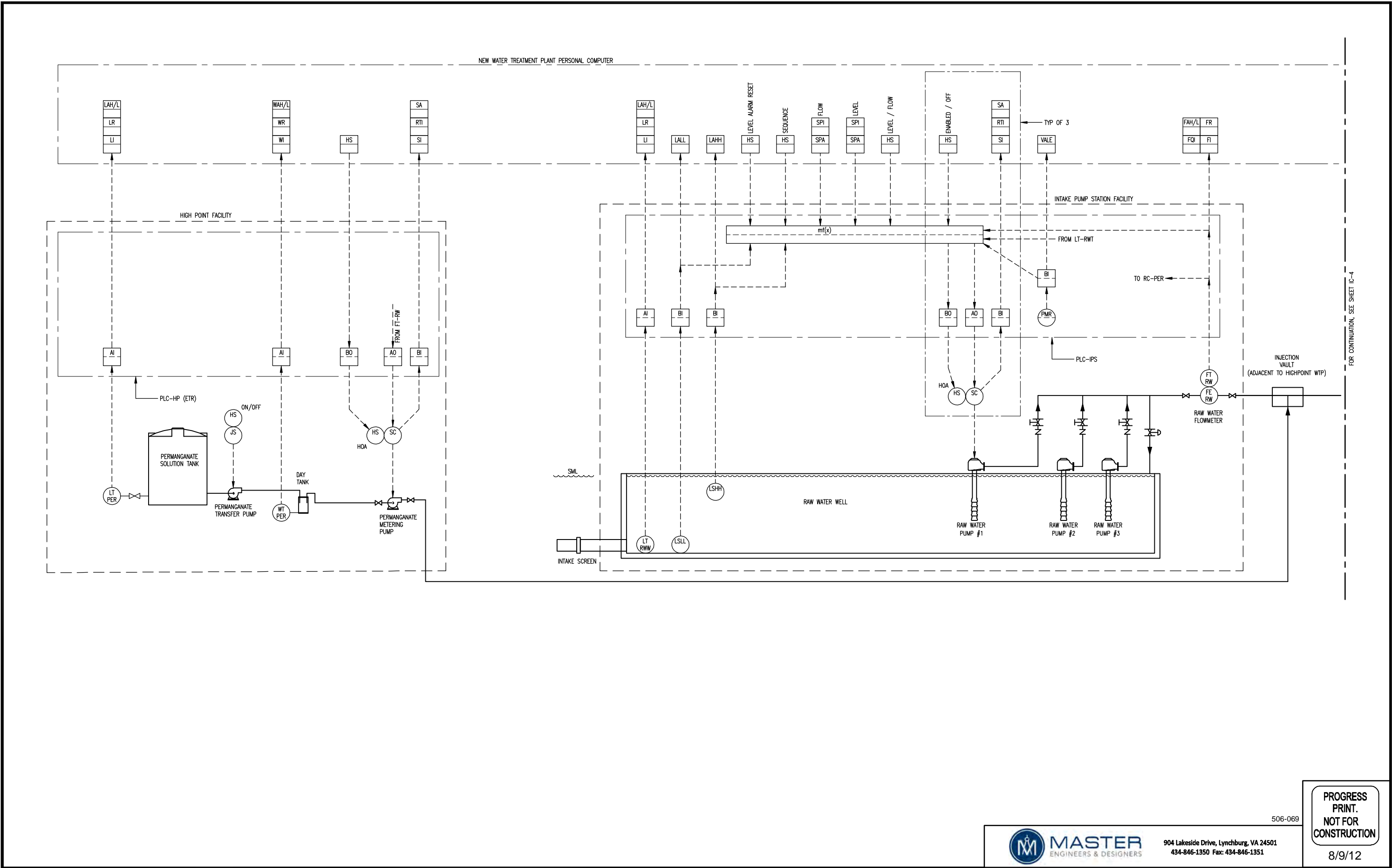
SMITH MOUNTAIN LAKE WTP
PRELIMINARY ENGINEERING REPORT
BEDFORD COUNTY, VA

SCADA COMMUNICATIONS DIAGRAM

DOCUMENT NO.
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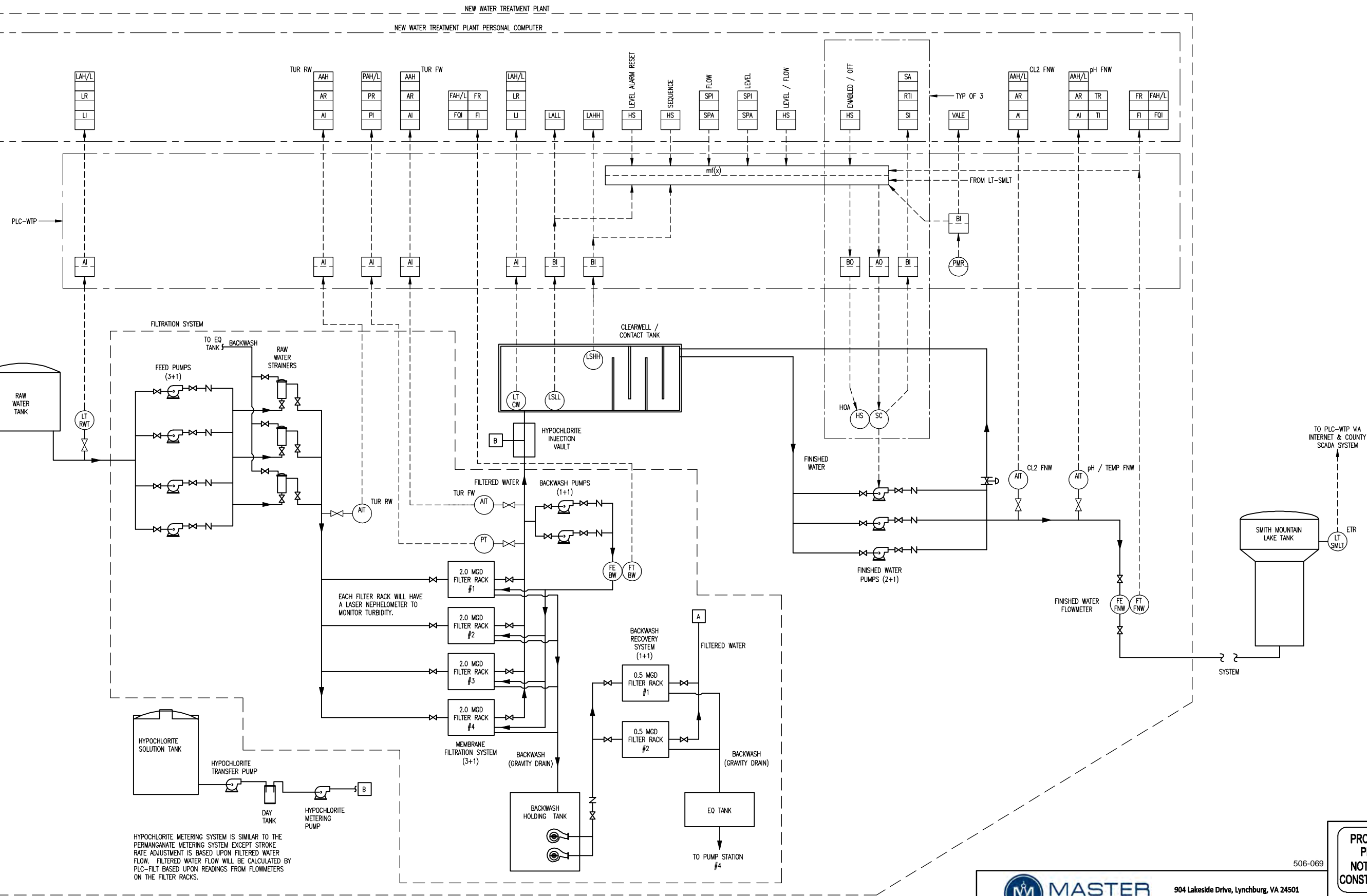
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SMITH MOUNTAIN LAKE WTP
PRELIMINARY ENGINEERING REPORT
BEDFORD COUNTY, VA



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APPENDIX B

EQUIPMENT SUPPLIER'S INFORMATION

**THIS APPENDIX CONTAINS SOME
INFORMATION CONSIDERED PROPRIETARY
BY A REPRESENTATIVE EQUIPMENT
SUPPLIER.
SPECIFIC INFORMATION WILL BE INCLUDED
ON AN
“AS NEEDED” BASIS.**



APPENDIX C

COST ESTIMATES

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - 6 mgd Floating Intake

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Intake Screen (36" drum type)	3	EA	\$46,000	\$138,000
Support Buoy and Hardware	3	LS	\$20,000	\$60,000
Mooring Anchors	3	LS	\$2,000	\$6,000
3-18" HDPE Intake Pipes	516	LF	\$100	\$51,600
3" Polyethylene Air Piping	516	LF	\$50	\$25,800
Pipe Supports/Anchorage	9	EA	\$1,000	\$9,000
Air Scour System	1	LS	\$60,000	\$60,000
Total Process Cost				\$350,400
Mobilization		3%	of TPC	\$10,000
Sitework		5%	of TPC	\$20,000
Electrical and Controls		5%	of TPC	\$20,000
Total Construction Cost				\$400,000
Engineering, Legal, & Admin.		30%	of TCC	\$120,000
TOTAL PROJECT COST				\$520,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$35,100
O&M Costs				\$20,000
EQUIVALENT ANNUAL COST				\$55,100

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - 6 mgd Fixed Intake

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Steel Piles	600	VLF	\$60	\$40,000
Treated Wood Piles	280	VLF	\$35	\$10,000
Pier Framing, Decking, Railing	600	SF	\$50	\$30,000
Boathouse Type Shelter	600	SF	\$100	\$60,000
Security System (CCTV monitor, entry alarms)	1	LS	\$30,000	\$30,000
Intake Screen (44" tee type)	2	LS	\$90,000	\$180,000
Screen Support structure	1	LS	\$50,000	\$50,000
Electric Hoist Assembly	2	LS	\$10,000	\$20,000
30" HDPE Pipe	290	LF	\$200	\$60,000
6" Polyethylene Air Piping	290	LF	\$75	\$20,000
Pipe Supports/Anchorage	2	LS	\$5,000	\$10,000
Air Scour System	1	LS	\$160,000	\$160,000
Total Process Cost				\$670,000
Mobilization		3%	of TPC	\$20,000
Sitework		5%	of TPC	\$30,000
Electrical and Controls		10%	of TPC	\$70,000
Total Construction Cost				\$790,000
Engineering, Legal, & Admin.		30%	of TCC	\$240,000
TOTAL PROJECT COST				\$1,030,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$69,500
O&M Costs				\$9,000
EQUIVALENT ANNUAL COST				\$78,500

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Intake (Raw Water) Pump Station

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
6 MGD Vertical Turbine Pump	1	Ea	\$156,800	\$156,800
3 MGD Vertical Turbine Pump	2	Ea	\$117,600	\$235,200
350 Hp VFD	1	Ea	\$59,200	\$59,200
200 Hp VFD	2	Ea	\$35,800	\$71,600
Surge Relief Valve	1	Ea	\$6,000	\$6,000
Pump Station Valves	1	LS	\$50,000	\$50,000
Pump Station Piping	1	LS	\$70,000	\$70,000
24" Strap on Flow Meter	1	Ea	\$10,000	\$10,000
Dewatering	1	LS	\$10,000	\$10,000
Wet Well	1	LS	\$100,000	\$100,000
Pump Building	2,250	SF	\$120	\$270,000
Generator	1	Ea	\$250,000	\$250,000
Total Process Cost				\$1,288,800
Mobilization		3%	of TPC	\$40,000
Sitework		5%	of TPC	\$60,000
Electrical and Controls		20%	of TPC	\$260,000
Total Construction Cost				\$1,650,000
Engineering, Legal, & Admin.		30%	of TCC	\$500,000
TOTAL PROJECT COST				\$2,150,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$145,000
O&M Costs				\$138,000
EQUIVALENT ANNUAL COST				\$283,000

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - Raw Water Force Main

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
30" Raw Water Waterline	12,750	LF	\$150	\$1,912,500
30" Gate Valves	5	Ea	\$20,000	\$100,000
Air Releases	5	Ea	\$6,500	\$32,500
Road Bore Setup	5	Ea	\$1,000	\$5,000
36" Casing Pipe	175	LF	\$450	\$78,750
Stream Crossings	3	Ea	\$2,000	\$6,000
Concrete Encasement	90	LF	\$200	\$18,000
Total Process Cost				\$2,152,750
Mobilization		3%	of TPC	\$60,000
Total Construction Cost				\$2,210,000
Engineering, Legal, & Admin.		30%	of TCC	\$660,000
TOTAL PROJECT COST				\$2,870,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$193,600
O&M Costs				\$10,000
EQUIVALENT ANNUAL COST				\$203,600

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Permanganate Feed System

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Tank				
7,000 Gallon HDPE Tank & Foundation	1	LS	\$14,000	\$14,000
Tank Appurtenances & Piping	1	LS	\$15,000	\$15,000
Treatment Equipment				
Metering Pumps	3	EA	\$4,000	\$12,000
Safety Equipment	1	LS	\$5,000	\$5,000
Process Monitoring				
Streaming Analyzer	1	LS	\$10,000	\$10,000
Total Process Cost				\$56,000
Mobilization			3% of TPC	\$2,000
Electrical and Controls			15% of TPC	\$8,000
Total Construction Cost				\$70,000
Engineering, Legal, & Admin.			30% of TCC	\$20,000
TOTAL PROJECT COST				\$90,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$6,100
O&M Costs				\$20,000
EQUIVALENT ANNUAL COST				\$26,100

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - Chlorine Dioxide Feed System

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Chlorine Dioxide Equipment				
Generator	1	LS	\$75,000	\$75,000
Sodium Chlorite Tank	1	LS	\$10,000	\$10,000
Chlorine Gas Feed Equipment	1	LS	\$30,000	\$30,000
Appurtenances & Piping	1	LS	\$15,000	\$15,000
Pumping Equipment				
Metering Pumps	3	EA	\$4,000	\$12,000
Safety Equipment	1	LS	\$5,000	\$5,000
Building/Site Improvements	1	LS	\$30,000	\$30,000
Total Process Cost				\$177,000
Mobilization			3% of TPC	\$5,000
Electrical and Controls			15% of TPC	\$27,000
Total Construction Cost				\$210,000
Engineering, Legal, & Admin.			30% of TCC	\$60,000
TOTAL PROJECT COST				\$270,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$18,200
O&M Costs				\$50,000
EQUIVALENT ANNUAL COST				\$68,200

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - PAC Feed System

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
PAC Slurry Equipment				
Storage Silo/Slurry Equipment	1	LS	\$200,000	\$200,000
Appurtenances & Piping	1	LS	\$15,000	\$15,000
Pumping Equipment				
Metering Pumps	3	EA	\$4,000	\$12,000
Safety Equipment	1	LS	\$5,000	\$5,000
Building/Site Improvements	1	LS	\$15,000	\$15,000
Total Process Cost				\$247,000
Mobilization			3% of TPC	\$7,000
Electrical and Controls			15% of TPC	\$37,000
Total Construction Cost				\$290,000
Engineering, Legal, & Admin.			30% of TCC	\$90,000
TOTAL PROJECT COST				\$380,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$25,600
O&M Costs				\$110,000
EQUIVALENT ANNUAL COST				\$135,600

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - 6 mgd Conventional Treatment System

Source: McGivney and Kawamura, "Cost Estimating Manual for Water Treatment Facilities" (2008), App A3a

ENR CCI of publication = 8889

ENR CCI (June 2012) = 9291

Process	No. of Units	Total Cost
Rapid Mix Basins	2	\$100,000
Polyaluminum Chlorine Feed System	2	\$100,000
Soda Ash Feed System	2	\$100,000
Flocculators/Basins	2	\$1,440,000
Variable Frequency Drives	6	\$90,000
Settling Basins	3	\$2,190,000
Rapid Sand Filters (Dual Media)	7	\$5,530,000
Backwash Pumps	2	\$280,000
Air Scour Wash	2	\$640,000
Flow Metering	1	\$50,000
Treatment Building/Lab	6,000	\$900,000
Subtotal Process Costs		\$11,420,000
Inflation Factor (9291/8889)		1.05
Total Process Costs		\$11,940,000
Mobilization	3% of TCC	\$360,000
Yard Piping	5% of TCC	\$600,000
Sitework	10% of TCC	\$60,000
Electrical and Controls	10% of TCC	\$1,190,000
Total Construction Cost		\$14,150,000
Engineering, Legal, & Admin.	30% of TCC	\$4,245,000
Total Project Cost		\$18,395,000

Amortization of Improvements

Rate 4.5 %
Term 25 years

AMORTIZED CAPITAL COST	\$1,240,500
O&M Costs	\$740,000
EQUIVALENT ANNUAL COST	\$1,980,500

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - 6 mgd Membrane Filtration System

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Yard Structures				
Finished Water Meter & Vault	1	LS	\$60,000	\$60,000
Filtered Water Chlorine Injection Vault	1	LS	\$25,000	\$25,000
Raw Water Tank	1	LS		
Glass-Lined Bolted Steel (0.25 mg)	1	LS	\$325,000	\$325,000
Treatment Building				
Pre-Engineered Metal Building and Foundation/Slab	14,200	SF	\$50	\$710,000
Mechanical and HVAC	1	LS	\$125,000	\$125,000
Piping/Plumbing	1	LS	\$175,000	\$175,000
1500 KW Backup Generator	1	LS	\$600,000	\$600,000
Treatment Equipment				
Membrane Filter Equipment	1	LS	\$4,100,000	\$4,100,000
Laboratory				
Analytical Equipment	1	LS	\$45,000	\$45,000
Safety Equipment	1	LS	\$15,000	\$15,000
Lab Counters/Cabinets/Furnishings	1	LS	\$30,000	\$30,000
Office				
Finished Office Space/Conference Room	2,400	SF	\$90	\$216,000
Equipment	1	LS	\$10,000	\$10,000
Finishes	1	LS	\$10,000	\$10,000
Furnishings	1	LS	\$30,000	\$30,000
Total Process Cost				\$6,476,000
Mobilization		3%	of TPC	\$190,000
Sitework		5%	of TPC	\$320,000
Yard Piping		10%	of TPC	\$650,000
Electrical and Controls		10%	of TPC	\$650,000
Total Construction Cost				\$8,290,000
Engineering, Legal, & Admin.		30%	of TCC	\$2,490,000
TOTAL PROJECT COST				\$10,780,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$727,000
O&M Costs				\$390,000
EQUIVALENT ANNUAL COST				\$1,117,000

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - Backwash Recovery Using High Rate Clarifiers

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Clarifiers				
Inclined Plate Settlers	1	LS	\$800,000	\$800,000
Submersible Feed Pumps	2	EA	\$10,000	\$20,000
30,000-gal Feed Tank	1	LS	\$60,000	\$60,000
Polyaluminum Chloride Feed Equipment				\$0
5000-gal Coagulant Tank	1	LS	\$10,000	\$10,000
Secondary Containment Area	1	LS	\$10,000	\$10,000
Day Tank	1	LS	\$1,500	\$0
Metering Pumps	1	LS	\$10,000	\$10,000
Transfer Pump	1	LS	\$5,000	\$10,000
Total Process Cost				\$920,000
Mobilization		3%	of TPC	\$30,000
Electrical/Controls		10%	TCC	\$90,000
Piping		5%	TCC	\$50,000
Total Construction Cost				\$1,090,000
Engineering, Legal, & Admin.		30%	of TCC	\$330,000
TOTAL PROJECT COST				\$1,420,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$95,800
O&M Costs				\$60,000
EQUIVALENT ANNUAL COST				\$155,800

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - Backwash Recovery Using Membrane Filtration

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Membrane Filtration				
Relocate and Assemble Pre-engineered Membrane Skids	1	LS	\$80,000	\$80,000
Reprogram and Commission Membrane Skids	1	LS	\$15,000	\$15,000
Submersible Feed Pumps	2	EA	\$15,000	\$30,000
30,000-gal Feed Tank	1	LS	\$90,000	\$90,000
Total Process Cost				\$215,000
Mobilization		3%	of TPC	\$10,000
Electrical/Controls		10%	TCC	\$20,000
Piping		5%	TCC	\$10,000
Total Construction Cost				\$250,000
Engineering, Legal, & Admin.		30%	of TCC	\$80,000
TOTAL PROJECT COST				\$330,000
Amortization of Improvements				
Interest Rate		4.5 %		
Term		25 years		
AMORTIZED CAPITAL COST				\$22,300
O&M Costs				\$62,000
EQUIVALENT ANNUAL COST				\$84,300
O&M Cost Detail				
Expense Categories	Units	Unit Cost	Qty	Total
Electrical				
Feed Pumps	kWh/yr	\$0.10	73,000	\$7,300
Membrane System	kWh/yr	\$0.10	146,000	\$14,600
Labor	MH	\$70	91	\$6,388
Chemicals				
Hypochlorite	gals/yr	\$1.30	2,022	\$2,629
Acid	gals/yr	\$5.59	425	\$2,378
Caustic	gals/yr	\$1.91	350	\$668
Membrane Replacement	membranes p	\$5,000	5.6	\$28,000
Total O&M Cost				\$61,962

Smith Mountain Lake WTP PER
Bedford County, VA
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Preliminary Cost Estimate - Backwash Disposal Using Pump Station #4

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
10,000 Gallon EQ/Holding Tank	1	LS	\$20,000	\$20,000
Replace Submersible Pumps	2	EA	\$15,000	\$30,000
Total Process Cost				\$50,000
Mobilization		3%	of TPC	\$1,500
Yard Piping		10%	of TCC	\$5,000
Sitework		5%	of TCC	\$2,500
Electrical and Controls		10%	of TCC	\$5,000
Total Construction Cost				\$60,000
Engineering, Legal, & Admin.		30%	of TCC	\$20,000
TOTAL PROJECT COST				\$80,000

Amortization of Improvements

Interest Rate	4.5 %
Term	25 years

AMORTIZED CAPITAL COST \$5,400

O&M Costs \$44,000

EQUIVALENT ANNUAL COST \$49,400

O&M Cost Detail

Expense Categories	Units	Unit Cost	Qty	Total
Electrical				
Pumps	kWh/yr	\$0.10	87,600	\$8,760
Labor	MH	\$70	37	\$2,555
Variable Costs at Moneta WWTP	\$/1000 gal	\$0.75	43,800	\$32,850
Total O&M Cost				\$44,165

Smith Mountain Lake WTP PER
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Preliminary Cost Estimate - Backwash Disposal Using Infiltration Basins

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Basin Grading	1	LS	\$20,000	\$20,000
Splitter Box and Concrete Work	1	LS	\$10,000	\$10,000
Piping and Valves	1	LS	\$12,000	\$12,000
Total Process Cost				\$42,000
Mobilization		3%	of TPC	\$1,260
Yard Piping		10%	of TCC	\$4,200
Sitework		2%	of TCC	\$840
Electrical and Controls		0%	of TCC	\$0
Total Construction Cost				\$50,000
Engineering, Legal, & Admin.		30%	of TCC	\$20,000
TOTAL PROJECT COST				\$70,000

Amortization of Improvements

Interest Rate	4.5 %
Term	25 years

AMORTIZED CAPITAL COST \$4,700

O&M Costs \$7,000

EQUIVALENT ANNUAL COST \$11,700

O&M Cost Detail

Expense Categories	Units	Unit Cost	Qty	Total
Electrical	kWh/yr	\$0.10	14,600	\$1,460
Daily Labor	MH	\$70	37	\$2,555
Annual Labor/Maintenance	LS	\$5,000	1	\$4,000
Total O&M Cost				\$6,555

Smith Mountain Lake WTP PER
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Preliminary Cost Estimate - Backwash Disposal Using VPDES Discharge

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Pond Grading	1	LS	\$150,000	\$150,000
Membrane Liner	1	LS	\$200,000	\$200,000
Splitter Box and Concrete Work	1	LS	\$10,000	\$10,000
Piping and Valves	1	LS	\$12,000	\$12,000
Pump Station	1	LS	\$200,000	\$150,000
Force Main	27,000	LF	\$60	\$1,620,000
Total Process Cost				\$2,142,000
Mobilization		3%	of TPC	\$64,260
Yard Piping		3%	of TCC	\$64,260
Sitework		5%	of TCC	\$107,100
Electrical and Controls		5%	of TCC	\$107,100
Total Construction Cost				\$2,480,000
Engineering, Legal, & Admin.		30%	of TCC	\$740,000
TOTAL PROJECT COST				\$3,220,000

Amortization of Improvements

Interest Rate	4.5 %
Term	25 years

AMORTIZED CAPITAL COST \$217,200

O&M Costs \$50,000

EQUIVALENT ANNUAL COST \$267,200

O&M Cost Detail

Expense Categories	Units	Unit Cost	Qty	Total
Electrical	kWh/yr	\$0.10	52,560	\$5,256
Electrical	kWh/yr	\$0.10	14,600	\$1,460
Chemicals	\$/1000 gal	\$0.10	109,500	\$10,950
Daily Labor	MH	\$70	183	\$12,775
Sludge removal/hauling	LS	\$30,000	1	\$10,000
Sludge dewatering at Moneta	LS	\$5,000	1	\$1,667
Permit Fees	LS	\$3,000	1	\$3,000
Sampling/Lab	LS	\$5,000	1	\$5,000
Total O&M Cost				\$50,108

Smith Mountain Lake WTP PER
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Preliminary Cost Estimate - Precast Clearwell

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Clearwell				
Precast Tank and Foundation	1	LS	\$840,000	\$840,000
Total Process Cost				\$840,000
Mobilization		3%	of TPC	\$30,000
Sitework		3%	of TPC	\$30,000
Electrical and Controls		1%	of TPC	\$10,000
Total Construction Cost				\$910,000
Engineering, Legal, & Admin.		30%	of TCC	\$270,000
TOTAL PROJECT COST				\$1,180,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$79,600
O&M Costs				\$0
EQUIVALENT ANNUAL COST				\$79,600

Smith Mountain Lake WTP PER
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Preliminary Cost Estimate - CIP Clearwell

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Clearwell				
Cast in Place Tank	1	LS	\$700,000	\$700,000
Total Process Cost				\$700,000
Mobilization		3%	of TPC	\$20,000
Sitework		15%	of TPC	\$110,000
Electrical and Controls		1%	of TPC	\$10,000
Total Construction Cost				\$840,000
Engineering, Legal, & Admin.		30%	of TCC	\$250,000
TOTAL PROJECT COST				\$1,090,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$73,500
O&M Costs				\$0
EQUIVALENT ANNUAL COST				\$73,500

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Finished Water Pumps - Split Case Pumps

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Finished Water Pumps				
6 mgd Split Case Pumps & VFD	1	EA	\$200,000	\$200,000
3 mgd Split Case Pumps & VFD	2	EA	\$150,000	\$300,000
Total Process Cost				\$500,000
Mobilization		3%	of TPC	\$20,000
Sitework		0%	of TPC	\$0
Yard Piping		0%	of TPC	\$0
Electrical and Controls		5%	of TPC	\$30,000
Total Construction Cost				\$550,000
Engineering, Legal, & Admin.		30%	of TCC	\$170,000
TOTAL PROJECT COST				\$720,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$48,600
O&M Costs				\$110,000
EQUIVALENT ANNUAL COST				\$158,600

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Finished Water Pumps - Turbine Pumps

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Finished Water Pumps				
6 mgd Vertical Turbine Pumps & VFD	1	EA	\$220,000	\$220,000
3 mgd Vertical Turbine Pumps & VFD	2	EA	\$160,000	\$320,000
Total Process Cost				\$540,000
Mobilization		3%	of TPC	\$20,000
Sitework		0%	of TPC	\$0
Yard Piping		0%	of TPC	\$0
Electrical and Controls		5%	of TPC	\$30,000
Total Construction Cost				\$590,000
Engineering, Legal, & Admin.		30%	of TCC	\$180,000
TOTAL PROJECT COST				\$770,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$51,900
O&M Costs				\$110,000
EQUIVALENT ANNUAL COST				\$161,900

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Disinfection - Gas Chlorine

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Gas Chlorine Feed System	1	LS	\$170,000	\$170,000
Safety Equipment	1	LS	\$5,000	\$5,000
Analytical Equipment	1	LS	\$2,000	\$2,000
Total Process Cost				\$177,000
Mobilization		3%	of TPC	\$5,000
Sitework		5%	of TPC	\$9,000
Electrical and Controls		5%	of TPC	\$10,000
Total Construction Cost				\$200,000
Engineering, Legal, & Admin.		30%	of TCC	\$60,000
TOTAL PROJECT COST				\$260,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$17,500
O&M Costs				\$29,000
EQUIVALENT ANNUAL COST				\$46,500

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Disinfection - Hypochlorite

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Tank				
14' Dia.x 14' High HDPE Tank & Foundation	1	EA	\$10,000	\$10,000
8' Dia.x 12' High HDPE Tank & Foundation	1	EA	\$6,000	\$6,000
5' Dia. Day Tank with Scale	1	EA	\$5,000	\$5,000
Tank Appurtenances & Piping	1	LS	\$15,000	\$15,000
Transfer Pump	1	EA	\$10,000	\$10,000
Concrete Containment Area	1	LS	\$5,000	\$5,000
Dilution Equipment	1	EA	\$55,000	\$55,000
Treatment Equipment				
Metering Pumps	2	EA	\$3,500	\$7,000
Safety Equipment	1	LS	\$5,000	\$5,000
Laboratory				
Analytical Equipment	1	LS	\$2,000	\$2,000
Total Process Cost				\$120,000
Mobilization		3%	of TPC	\$4,000
Sitework		5%	of TPC	\$6,000
Electrical and Controls		5%	of TPC	\$10,000
Total Construction Cost				\$140,000
Engineering, Legal, & Admin.		30%	of TCC	\$40,000
TOTAL PROJECT COST				\$180,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$12,100
O&M Costs				\$50,000
EQUIVALENT ANNUAL COST				\$62,100

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Distribution DBP Control - Automatic Flushing Units

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Automatic Flushing Units w/ Telemetry	10	EA	\$14,000	\$140,000
Total Process Cost				\$140,000
Mobilization		3% of TPC		\$4,000
Sitework		5% of TPC		\$7,000
Electrical and Controls		15% of TPC		\$20,000
Total Construction Cost				\$170,000
Engineering, Legal, & Admin.		30% of TCC		\$50,000
TOTAL PROJECT COST				\$220,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$14,800
O&M Costs				\$30,000
EQUIVALENT ANNUAL COST				\$44,800

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Distribution DBP Control - Storage Tank Aeration

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Aeration Systems	2	EA	\$75,000	\$150,000
Total Process Cost				\$150,000
Mobilization		3%	of TPC	\$5,000
Sitework		5%	of TPC	\$8,000
Electrical and Controls		10%	of TPC	\$20,000
Total Construction Cost				\$180,000
Engineering, Legal, & Admin.		30%	of TCC	\$50,000
TOTAL PROJECT COST				\$230,000
Amortization of Improvements				
Interest Rate		4.5 %		
Term		25 years		
AMORTIZED CAPITAL COST				\$15,500
O&M Costs				\$19,000
EQUIVALENT ANNUAL COST				\$34,500

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Distribution DBP Control - Chloramination

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Liquid Ammonia System	1	LS	\$185,000	\$190,000
Analyzer	1	LS	\$40,000	\$40,000
Total Process Cost				\$230,000
Mobilization		3%	of TPC	\$7,000
Sitework		5%	of TPC	\$12,000
Electrical and Controls		10%	of TPC	\$20,000
Total Construction Cost				\$270,000
Engineering, Legal, & Admin.		30%	of TCC	\$80,000
TOTAL PROJECT COST				\$350,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$23,600
O&M Costs				\$10,000
EQUIVALENT ANNUAL COST				\$33,600

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Post Treatment - 3 mgd Granular Activated Carbon System

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Granular Activated Carbon Units	1	LS	\$2,216,000	\$2,220,000
Booster Pumps	2	EA	\$45,000	\$90,000
Pre-Engineered Metal Building and Foundation/Slab	3,000	SF	\$70	\$210,000
Total Process Costs				\$2,520,000
Yard Piping	10%			\$250,000
Sitework	5%			\$130,000
Mechanical	10%			\$250,000
Electrical and Controls	15%			\$380,000
Total Construction Cost				\$3,530,000
Mobilization		3%	of TPC	\$110,000
Total Construction Cost				\$3,640,000
Engineering, Legal, & Admin.		30%	of TCC	\$1,090,000
TOTAL PROJECT COST				\$4,730,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$319,000
O&M Costs				\$182,000
EQUIVALENT ANNUAL COST				\$501,000

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Post Treatment - 3 mgd Ion Exchange System

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
Ion Exchange Treatment System	1	LS	\$2,472,000	\$2,470,000
Pre-Engineered Metal Building and Foundation/Slab	3,000	SF	\$70	\$210,000
Total Process Costs				\$2,680,000
Yard Piping	10%			\$270,000
Sitework	5%			\$130,000
Mechanical	10%			\$270,000
Electrical and Controls	15%			\$400,000
Total Construction Cost				\$3,750,000
Mobilization		3%	of TPC	\$110,000
Total Construction Cost				\$3,860,000
Engineering, Legal, & Admin.		30%	of TCC	\$1,160,000
TOTAL PROJECT COST				\$5,020,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$338,500
O&M Costs				\$57,000
EQUIVALENT ANNUAL COST				\$395,500

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Forest System Improvements - Connection to New Transmission Main

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
12" PRV	1	Ea	\$20,000	\$20,000
Misc. Pipe Work	1	LS	\$5,000	\$5,000
Total Process Cost				\$25,000
Mobilization		3%	of TPC	\$1,000
Total Construction Cost				\$26,000
Engineering, Legal, & Admin.		30%	of TCC	\$8,000
TOTAL PROJECT COST				\$34,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$2,300
O&M Costs				\$0
EQUIVALENT ANNUAL COST				\$2,300

Smith Mountain Lake WTP PER
Bedford County, VA
JN 29701

Preliminary Cost Estimate - Forest System Improvements - Tank Altitude Valves

	Quantity	Unit	Unit Cost	Total
CONSTRUCTION COST				
12" Altitude Valve	2	Ea	\$20,000	\$40,000
Misc. Pipe Work	1	LS	\$10,000	\$10,000
Total Process Cost				\$50,000
Mobilization		3%	of TPC	\$2,000
Total Construction Cost				\$52,000
Engineering, Legal, & Admin.		30%	of TCC	\$16,000
TOTAL PROJECT COST				\$68,000
Amortization of Improvements				
Interest Rate	4.5 %			
Term	25 years			
AMORTIZED CAPITAL COST				\$4,600
O&M Costs				\$0
EQUIVALENT ANNUAL COST				\$4,600



APPENDIX D

PRELIMINARY DESIGN CALCULATIONS

PUMP STATION HEAD ANALYSIS**Bedford Lakes WTP PER****JN 29701**

Raw Water Pump Station

Suction water surface elevation 794.00 feet

Discharge water surface elevation 1048.00 feet

Static head 254.0 feet

FM High Elevation: 1048.00 feet

Last Pipe to High Spot: Pipe 4

Pipe Information

Pipe 1	Suction and Pump Station Piping Water Main to Camp 24					
Pipe 2						
Pipe 3						
Pipe 4						
Pipe 5						
Pipe 6						
	Pipe 1	Pipe 2	Pipe 3	Pipe 4	Pipe 5	Pipe 6
Pipe length (feet)	25	12730	0	0	0	0
Pipe diameter (inches)	18.00	30.00	0.00	0.00	0.00	0.00
Pipe C-factor	120	120	120	120	120	120
Portion of Flow	1.00	1.00	0.00	0.00	0.00	0.00
Cross-sectional area (feet)	1.767	4.909				
Hydraulic radius	0.375	0.625				

Number of fittings for each pipe

	Pipe 1	Pipe 2	Pipe 3	Pipe 4	Pipe 5	Pipe 6
Gate Valve	1	13				
Plug Valve (99% open)						
Butterfly Valve						
Swing Check Valve	1					
90° Bend	3	2				
45° Bend		4				
22.5° Bend						
11.25° Bend						
Tee (through)	2					
Tee (side out)	1					
Cross (through)	1					
Cross (side out)						
Reducer/Incraser	1	1				
Discharge to air		1				
Sum of losses in fittings	7.14	4.87				
Other miscellaneous losses						
Sum of minor losses (K)	7.14	4.87				

Minimum flow for results 0 gpm

Flow Increment 350 gpm

PUMP STATION HEAD ANALYSIS**Bedford Lakes WTP PER****JN 29701****Head Loss Calculations**

Flow (gpm)	Pipe 1 Loss (feet)	Pipe 2 Loss (feet)	Pipe 3 Loss (feet)	Pipe 4 Loss (feet)	Pipe 5 Loss (feet)	Pipe 6 Loss (feet)	TDH Full Length (feet)	TDH High Spot (feet)	TDH Controlling (feet)
0	0	0	0	0	0	0	254.00	254.00	254.00
350	0.02	0.06	0	0	0	0	254.09	254.09	254.09
700	0.09	0.23	0	0	0	0	254.32	254.32	254.32
1050	0.21	0.49	0	0	0	0	254.70	254.70	254.70
1400	0.36	0.84	0	0	0	0	255.20	255.20	255.20
1750	0.57	1.26	0	0	0	0	255.83	255.83	255.83
2100	0.82	1.77	0	0	0	0	256.59	256.59	256.59
2450	1.11	2.36	0	0	0	0	257.47	257.47	257.47
2800	1.45	3.03	0	0	0	0	258.48	258.48	258.48
3150	1.83	3.77	0	0	0	0	259.60	259.60	259.60
3500	2.26	4.58	0	0	0	0	260.85	260.85	260.85
3850	2.74	5.47	0	0	0	0	262.21	262.21	262.21
4200	3.25	6.43	0	0	0	0	263.69	263.69	263.69
4550	3.82	7.46	0	0	0	0	265.28	265.28	265.28
4900	4.43	8.57	0	0	0	0	266.99	266.99	266.99
5250	5.08	9.74	0	0	0	0	268.82	268.82	268.82
5600	5.77	10.98	0	0	0	0	270.75	270.75	270.75
5950	6.52	12.29	0	0	0	0	272.81	272.81	272.81
6300	7.30	13.67	0	0	0	0	274.97	274.97	274.97
6650	8.13	15.11	0	0	0	0	277.25	277.25	277.25
7000	9.01	16.62	0	0	0	0	279.63	279.63	279.63

Velocity Calculations

Flow (gpm)	Pipe 1 Velocity (fps)	Pipe 2 Velocity (fps)	Pipe 3 Velocity (fps)	Pipe 4 Velocity (fps)	Pipe 5 Velocity (fps)	Pipe 6 Velocity (fps)
0	0	0	0	0	0	0
350	0.44	0.16	0	0	0	0
700	0.88	0.32	0	0	0	0
1050	1.32	0.48	0	0	0	0
1400	1.77	0.64	0	0	0	0
1750	2.21	0.79	0	0	0	0
2100	2.65	0.95	0	0	0	0
2450	3.09	1.11	0	0	0	0
2800	3.53	1.27	0	0	0	0
3150	3.97	1.43	0	0	0	0
3500	4.41	1.59	0	0	0	0
3850	4.85	1.75	0	0	0	0
4200	5.30	1.91	0	0	0	0
4550	5.74	2.07	0	0	0	0
4900	6.18	2.22	0	0	0	0
5250	6.62	2.38	0	0	0	0
5600	7.06	2.54	0	0	0	0
5950	7.50	2.70	0	0	0	0
6300	7.94	2.86	0	0	0	0
6650	8.38	3.02	0	0	0	0
7000	8.83	3.18	0	0	0	0



Company: A&A, Inc.

Name: 29701 - Raw Water - 2100 GPM pump

Date: 5/14/2013

FAIRBANKS NIJHUIS™

Pump:

Size: 14F.4+ (4 stage)

Type: VERT. TURBINE
Synch speed: 1800 rpm

Curve: 9PC-119436

Specific Speeds:

Dimensions:

Vertical Turbine:

Speed: 1770 rpm
Dia: 10.8125 in

Impeller:

Ns: ---

Nss: ---

Suction: 10 in
Discharge: 12 in

Bowl size: 14.3 in
Max lateral: 0.7 in
Thrust K factor: 15.5 lb/ft

Search Criteria:

Flow: 2100 US gpm

Head: 275 ft

Fluid:

Water
SG: 1
Viscosity: 1.105 cP
NPSHa: ---

Temperature: 60 °F
Vapor pressure: 0.2563 psi a
Atm pressure: 14.7 psi a

Motor:

Standard: NEMA
Enclosure: TEFC

Size: 200 hp
Speed: 1800
Frame: 447T

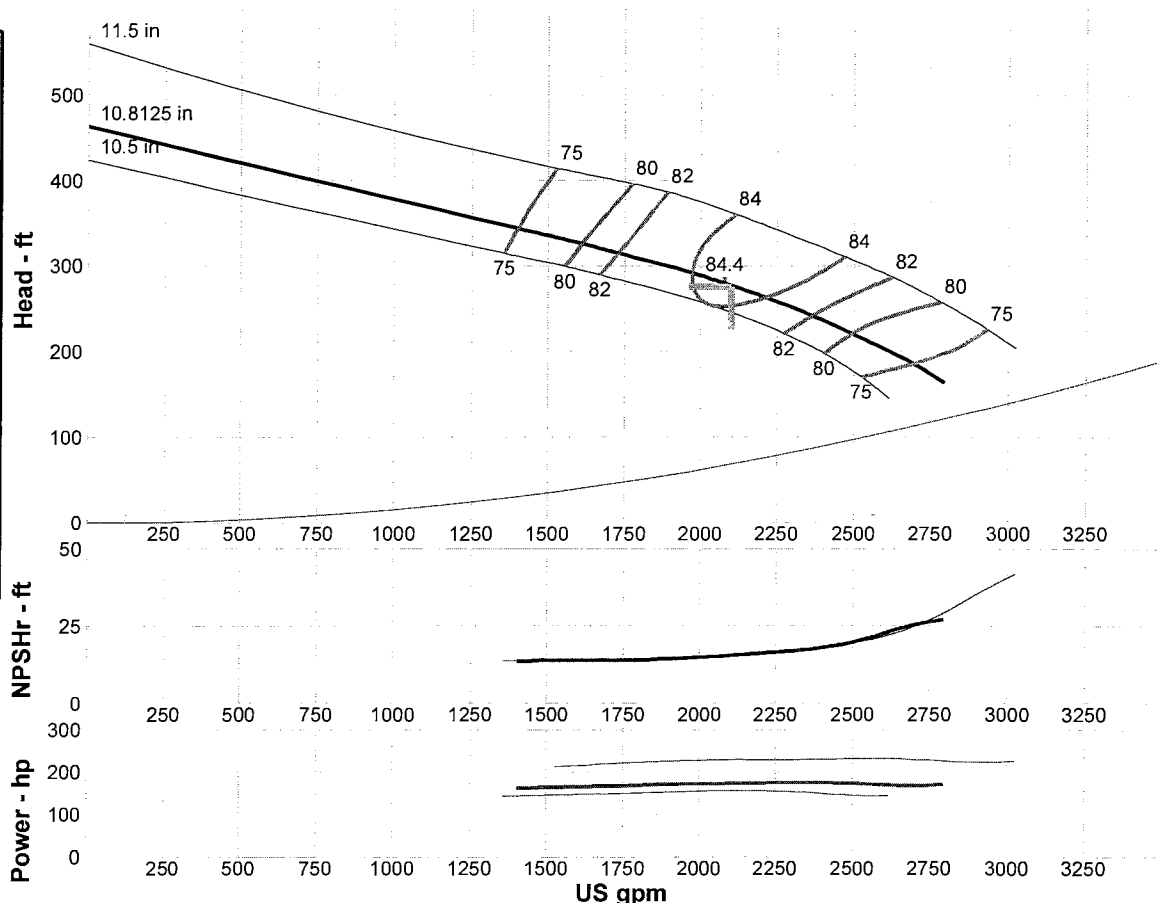
Sizing criteria: Max Power on Design Curve

Pump Limits:

Temperature: 150 °F
Pressure: 400 psi g
Sphere size: 1 in

Power: 781 hp
Eye area: ---

--- Data Point ---	
Flow:	2100 US gpm
Head:	277 ft
Eff:	84.4%
Power:	174 hp
NPSHr:	15.6 ft
--- Design Curve ---	
Shutoff head:	463 ft
Shutoff dP:	200 psi
Min flow:	---
BEP:	84.4% @ 2079 US gpm
NOL power:	176 hp @ 2364 US gpm
--- Max Curve ---	
Max power:	232 hp @ 2626 US gpm



Curve efficiencies are typical. For guaranteed values, contact Fairbanks Morse or your local distributor. Las eficiencias en curvas son típicas. Para valores garantizados contacte a Fairbanks Morse o a su distribuidor local.

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
2520	1770	216	79.3	173	20.6
2100	1770	277	84.4	174	15.6
1680	1770	320	81.2	167	14.1
1260	1770	---	---	---	---
840	1770	---	---	---	---



Company: A&A, Inc.

Name: 29701 - Raw Water - 4200 GPM pump

Date: 5/14/2013

FAIRBANKS NIJHUIS™

Pump:

Size: 18H.2+ (3 stage)

Type: VERT.TURBINE

Synch speed: 1800 rpm

Curve: 18-187

Specific Speeds:

Dimensions:

Vertical Turbine:

Speed: 1770 rpm

Dia: 13.06 in

Impeller:

Ns: ---

Nss: ---

Suction: 17.25 in

Discharge: 12 in

Bowl size: 17.5 in

Max lateral: 0.38 in

Thrust K factor: 27 lb/ft

Search Criteria:

Flow: 4200 US gpm

Head: 275 ft

Fluid:

Water

SG: 1

Viscosity: 1.105 cP

NPSHa: ---

Temperature: 60 °F

Vapor pressure: 0.2563 psi a

Atm pressure: 14.7 psi a

Motor:

Standard: NEMA

Enclosure: TEFC

Size: 350 hp

Speed: 1800

Frame: 449T

Sizing criteria: Max Power on Design Curve

Pump Limits:

Temperature: 150 °F

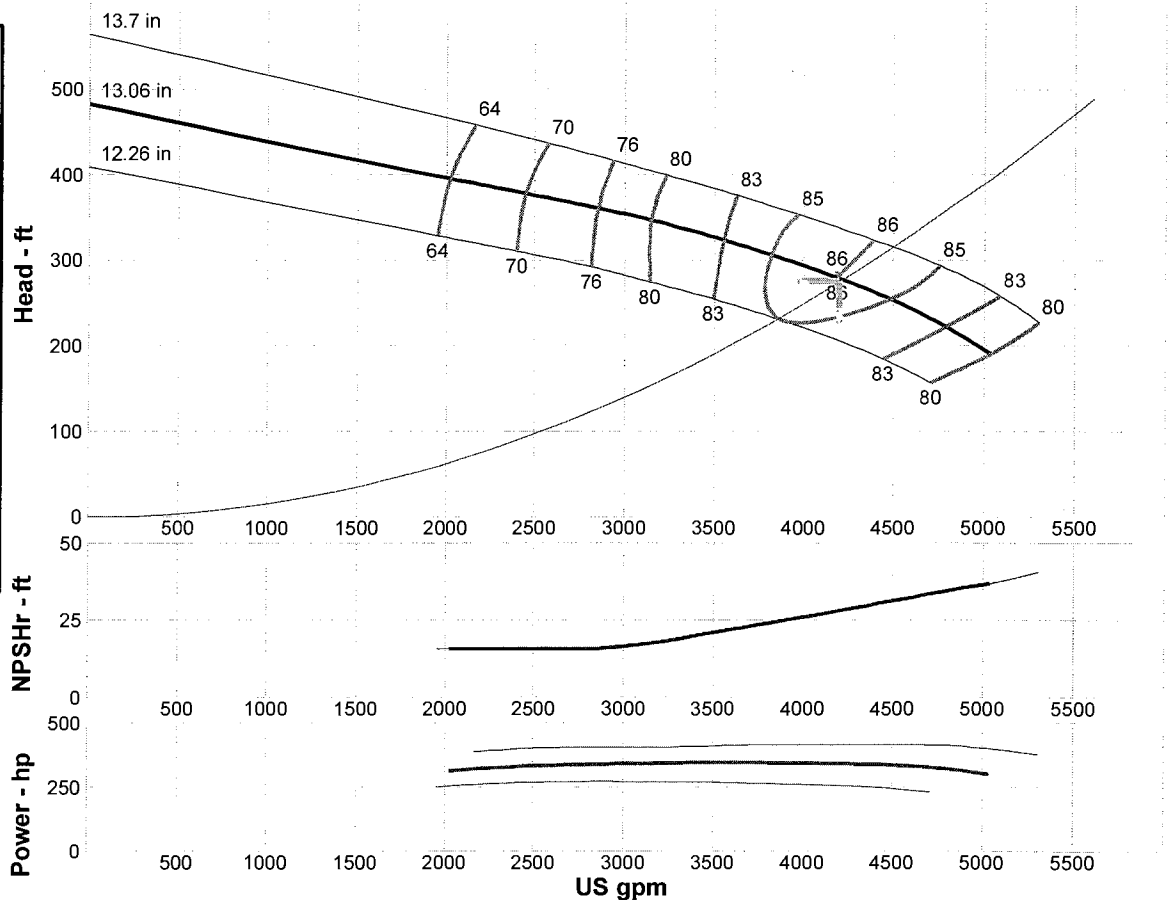
Pressure: 300 psi g

Sphere size: 1.62 in

Power: 781 hp

Eye area: ---

--- Data Point ---	
Flow:	4200 US gpm
Head:	278 ft
Eff:	85.9%
Power:	344 hp
NPSHr:	28.3 ft
--- Design Curve ---	
Shutoff head:	483 ft
Shutoff dP:	209 psi
Min flow:	---
BEP:	86% @ 4185 US gpm
NOL power:	350 hp @ 3552 US gpm
-- Max Curve --	
Max power:	417 hp @ 4390 US gpm



Curve efficiencies are typical. For guaranteed values, contact Fairbanks Morse or your local distributor. Las eficiencias en curvas son típicas. Para valores garantizados contacte a Fairbanks Morse o a su distribuidor local.

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
5040	1770	---	---	---	---
4200	1770	278	85.9	344	28.3
3360	1770	335	81.6	347	19.8
2520	1770	375	71.1	335	16
1680	1770	---	---	---	---

**SML Membrane Filtration Facility
Clearwell Calculations
JN 29701**

Step 1 - Check volume required to provide 30 minutes of contact time

Parameter	Value	Units
Qout	4200	gpm
Td required	30	minutes
Volume	126,000	gallons

Step 2 - Check volume required to provide 4 log virus removal (Per 12VAC5-590 and Table L-9)

Parameter	Value	Units
Q	4200	gpm
Log Inactivation Required	4	
Temperature	0.5	C
pH	8.5	
Ct Required	12	mg-min/L
T10/T	0.7	
Disinfectant Dose	1	mg/L
Volume Required	72,000	gallons

Step 3 - Check volume required to provide 0.5 log Giardia removal

Parameter	Value	Units
Q	4200	gpm
Log Inactivation Required	0.5	
Temperature	0.5	C
pH	8.5	
Ct Required	61.1	mg-min/L
T10/T	0.7	
Disinfectant Dose	1	mg/L
Volume Required	366,666	gallons

Step 4 - Perform initial sizing and check that it provides the highest volume calculated in Steps 1, 2, or 3

Parameter	Value	Units
Minimum Volume Required	366,666	gallons
Length	20	ft
Width	15.16	ft
Total Depth	18.5	ft
Freeboard	1.0	ft
Volume per tank	39,692	gallons
Number of tanks	12	
Total Volume	476,300	gallons
Total Volume > Min. Volume?	Yes	

Step 5 - Determine minimum level in tank that will provide minimum volume required

Parameter	Value	Units
Minimum Volume Required	366,666	gallons
Gallon per foot capacity	27,217	gal/ft.
Minimum Depth Required	13.5	ft

Step 6 - Set reasonable hi/low levels and check working volume/drawdown time

Parameter	Value	Units
Hi level	17.50	ft
Low level	14.00	ft
Working volume	95,260	gallons
Qin	3,125	gpm
Qout	4,200	gpm
Drawdown time	88.6	minutes

Assuming one unit offline for CIP
Assuming finished pumps stay running at full capacity

Notes

Drawdown time can be increased greatly by balancing flow into and out of tanks. With VFD control of all pumps in the system, this can be balanced by the operator.

Step 7 - Calculate CT provided at low level assuming Qin = 0

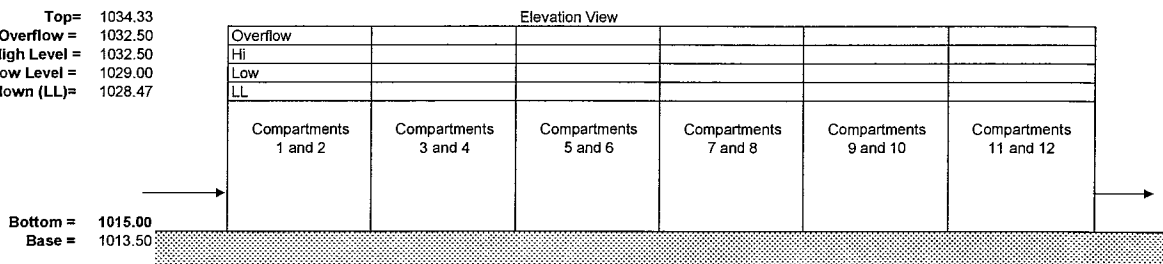
Qout	4200	gpm
Low volume	381,040	gallons
Td	91	minutes
T10/T	0.7	
Disinfectant Dose	1.0	mg/L
Ct Provided	64	mg-min/L

Notes

Baffling classification is assumed 0.7 due to internal baffling to provide flow path with high length/width ratio

Step 7 - Draw system sketch w/ control elevations

Top = 1034.33
 Overflow = 1032.50
 High Level = 1032.50
 Low Level = 1029.00
 Max Drawdown (LL) = 1028.47



Reference Data

TABLE L-8 - BAFFLING CLASSIFICATIONS

Baffling Condition	T10/T Baffling Description
Unbaffled (mixed flow)	0.1 None, agitated basin, very low length to width ratio high inlet and outlet flow velocities
Poor	0.3 Single or multiple unbaffled inlets and outlets, no intrabasin baffles
Average	0.5 Baffled inlet or outlet with some intrabasin baffles
Superior	0.7 Perforated inlet baffle, serpentine or perforated intrabasin baffles, outlet weir or perforated launders
Excellent	0.9 Serpentine baffling throughout basin, very high length to width ratio
Perfect	1.0 Very high length to width ratio (pipeline flow) (plug flow, perforated inlet, outlet, and intrabasin baffles flow)

TABLE L-9 - CT VALUES FOR INACTIVATION OF VIRUSES BY FREE CHLORINE, pH 6.0-9.0

Temp	Log Removal		
	2	3	4
0.5	6	9	12
1	5.8	8.7	11.6
2	5.3	8	10.7
3	4.9	7.3	9.8
4	4.4	6.7	8.9
5	4	6	8
6	3.8	5.6	7.6
7	3.6	5.2	7.2
8	3.4	4.8	6.8
9	3.2	4.4	6.4
10	3	4	6
11	2.8	3.8	5.6
12	2.6	3.6	5.2
13	2.4	3.4	4.8
14	2.2	3.2	4.4
15	2	3	4
16	1.8	2.8	3.8
17	1.6	2.6	3.6
18	1.4	2.4	3.4
19	1.2	2.2	3.2
20	1	2	3
21	1	1.8	2.8
22	1	1.6	2.6
23	1	1.4	2.4
24	1	1.2	2.2
25	1	1	2

TABLE L-2 - CT VALUES FOR INACTIVATION OF GIARDIA BY FREE CHLORINE, pH 8.0-8.5

pH = 8						
(mg/L)	0.5	1	1.5	2	2.5	3
0.4	46	92	139	185	231	277
0.6	48	95	143	191	238	286
0.8	49	98	148	197	246	295
1	51	101	152	203	253	304
1.2	52	104	157	209	261	313
1.4	54	107	161	214	268	321
1.6	55	110	165	219	274	329
1.8	56	113	169	225	282	338
2	58	115	173	231	288	346
2.2	59	118	177	235	294	353
2.4	60	120	181	241	301	361
2.6	61	123	184	245	307	368
2.8	63	125	188	250	313	375
3	64	127	191	255	318	382

pH = 8.5						
	0.5	1	1.5	2	2.5	3
0.4	55	110	165	219	274	329
0.6	57	114	171	228	285	342
0.8	59	118	177	236	295	354
1	61	122	183	243	304	365
1.2	63	125	188	251	313	376
1.4	65	129	194	258	323	387
1.6	66	132	199	265	331	397
1.8	68	136	204	271	339	407
2	70	139	209	278	348	417
2.2	71	142	213	284	355	426
2.4	73	145	218	290	363	435
2.6	74	148	222	296	370	444

INTAKE SCREEN DESIGN**High Point Water Treatment Plant - Bedford Co. PSA****JN 29701**

Size intake screens based on Cook Screens Engineers Guide:

- 1 INTAKE REQUIREMENTS - Allow for 2% waste since we will recover backwash water

$$6.0 \text{ MGD Initial peak} \times 1.02 / 1440 = 4250 \text{ gpm}$$

$$13.0 \text{ MGD Ultimate peak} \times 1.02 / 1440 = 9208 \text{ gpm}$$

$$\text{Use half of Ultimate peak for initial intake (Q)} = 4604 \text{ gpm}$$

- 2 SELECT THE SLOT OPENING SIZE

$$\text{Use } 1 \text{ mm} = 0.039 \text{ in}$$

- 3 DETERMINE FRACTIONAL OPEN AREA (FOA) FOR THIS SLOT SIZE - from Table 2

$$\text{FOA for } 0.039 \text{ in} = 0.357$$

- 4 DETERMINE THE SCREEN INDEX (SI) - for a single screen (N = number of units)

$$\text{SI} = Q / (N \times \text{FOA}) = 12897$$

- 5 SCREEN CONFIGURATION OPTIONS

N	MGD/UNIT	TYPE	DIA (in)	OUTLET	SI/UNIT	SI
1	6.0	drum	66	30	14929	14929
2	3.0	drum	44	20	6635	13270
3	2.0	drum	36	18	4438	13314
4	1.5	drum	33	16	3732	14928
1	6.0	tee	44	30	13270	13270
2	3.0	tee	33	24	7464	14928

- 6 SELECT CONFIGURATION

$$\begin{array}{llll} \text{Use a} & 44 & \text{in screen with a} & 30 \text{ in outlet pipe} \\ \text{or} & 3 \text{ } 36 & \text{in screens with} & 18 \text{ in outlet pipes} \end{array}$$

INTAKE SCREEN DESIGN**High Point Water Treatment Plant - Bedford Co. PSA****JN 29701**

Size intake screens based on Cook Screens Engineers Guide:

- 1 INTAKE REQUIREMENTS - Allow for 2% waste since we will recover backwash water

$$6.0 \text{ MGD Initial peak} \times 1.02 / 1440 = 4250 \text{ gpm}$$

$$13.0 \text{ MGD Ultimate peak} \times 1.02 / 1440 = 9208 \text{ gpm}$$

$$\text{Use half of Ultimate peak for initial intake (Q)} = 4604 \text{ gpm}$$

- 2 SELECT THE SLOT OPENING SIZE

$$\text{Use } 2 \text{ mm} = 0.078 \text{ in}$$

- 3 DETERMINE FRACTIONAL OPEN AREA (FOA) FOR THIS SLOT SIZE - from Table 2

$$\text{FOA for } 0.078 \text{ in} = 0.526$$

- 4 DETERMINE THE SCREEN INDEX (SI) - for a single screen (N = number of units)

$$\text{SI} = Q / (N \times \text{FOA}) = 8753$$

- 5 SCREEN CONFIGURATION OPTIONS

N	TYPE	DIA (in)	OUTLET	SI/UNIT	SI
1	drum	54	24	9994	9994
2	drum	40	20	5484	10968
3	drum	33	16	3732	11196
1	tee	36	30	8884	8884
2	tee	27	20	4996	9992

- 6 SELECT CONFIGURATION

$$\text{Use a } 36 \text{ in screen with a } 30 \text{ in outlet pipe}$$

PUMP STATION HEAD ANALYSIS**Bedford Lakes WTP PER****JN 29701**

Finished Water Pump Station

Suction water surface elevation	1025.00 feet		
Discharge water surface elevation	1220.00 feet	FM High Elevation:	1220.00 feet
Static head	195.0 feet	Last Pipe to High Spot:	Pipe 3

Pipe Information

Pipe 1	Suction and Pump Station Piping Proposed Line to Existing Line Existing Waterline on Radford Church Road					
Pipe 2						
Pipe 3						
Pipe 4						
Pipe 5						
Pipe 6						
	Pipe 1	Pipe 2	Pipe 3	Pipe 4	Pipe 5	Pipe 6
Pipe length (feet)	75	1050	1600	0	0	0
Pipe diameter (inches)	20.00	18.00	18.00	0.00	0.00	0.00
Pipe C-factor	120	120	120	120	120	120
Portion of Flow	1.00	1.00	1.00	0.00	0.00	0.00
Cross-sectional area (feet)	2.182	1.767	1.767			
Hydraulic radius	0.417	0.375	0.375			

Number of fittings for each pipe

	Pipe 1	Pipe 2	Pipe 3	Pipe 4	Pipe 5	Pipe 6
Gate Valve	1	1	2			
Plug Valve (99% open)						
Butterfly Valve						
Swing Check Valve	1					
90° Bend	3		2			
45° Bend		3				
22.5° Bend						
11.25° Bend						
Tee (through)						
Tee (side out)	1	1	1			
Cross (through)	1					
Cross (side out)						
Reducer/Incraser	1	1	1			
Discharge to air			1			
Sum of losses in fittings	5.94	2.69	3.78			
Other miscellaneous losses						
Sum of minor losses (K)	5.94	2.69	3.78			

Minimum flow for results	0 gpm
Flow Increment	350 gpm

PUMP STATION HEAD ANALYSIS**Bedford Lakes WTP PER****JN 29701****Head Loss Calculations**

Flow (gpm)	Pipe 1 Loss (feet)	Pipe 2 Loss (feet)	Pipe 3 Loss (feet)	Pipe 4 Loss (feet)	Pipe 5 Loss (feet)	Pipe 6 Loss (feet)	TDH Full Length (feet)	TDH High Spot (feet)	TDH Controlling (feet)
0	0	0	0	0	0	0	195.00	195.00	195.00
350	0.01	0.07	0.10	0	0	0	195.19	195.19	195.19
700	0.06	0.25	0.38	0	0	0	195.69	195.69	195.69
1050	0.13	0.54	0.82	0	0	0	196.49	196.49	196.49
1400	0.22	0.93	1.40	0	0	0	197.55	197.55	197.55
1750	0.35	1.41	2.13	0	0	0	198.89	198.89	198.89
2100	0.50	1.99	2.99	0	0	0	200.48	200.48	200.48
2450	0.67	2.65	3.99	0	0	0	202.32	202.32	202.32
2800	0.88	3.41	5.13	0	0	0	204.41	204.41	204.41
3150	1.11	4.25	6.39	0	0	0	206.75	206.75	206.75
3500	1.36	5.18	7.79	0	0	0	209.33	209.33	209.33
3850	1.65	6.19	9.31	0	0	0	212.15	212.15	212.15
4200	1.96	7.28	10.96	0	0	0	215.20	215.20	215.20
4550	2.29	8.46	12.74	0	0	0	218.50	218.50	218.50
4900	2.66	9.73	14.63	0	0	0	222.02	222.02	222.02
5250	3.05	11.07	16.65	0	0	0	225.77	225.77	225.77
5600	3.46	12.50	18.80	0	0	0	229.76	229.76	229.76
5950	3.90	14.00	21.06	0	0	0	233.97	233.97	233.97
6300	4.37	15.59	23.44	0	0	0	238.40	238.40	238.40
6650	4.87	17.25	25.94	0	0	0	243.06	243.06	243.06
7000	5.39	19.00	28.56	0	0	0	247.95	247.95	247.95

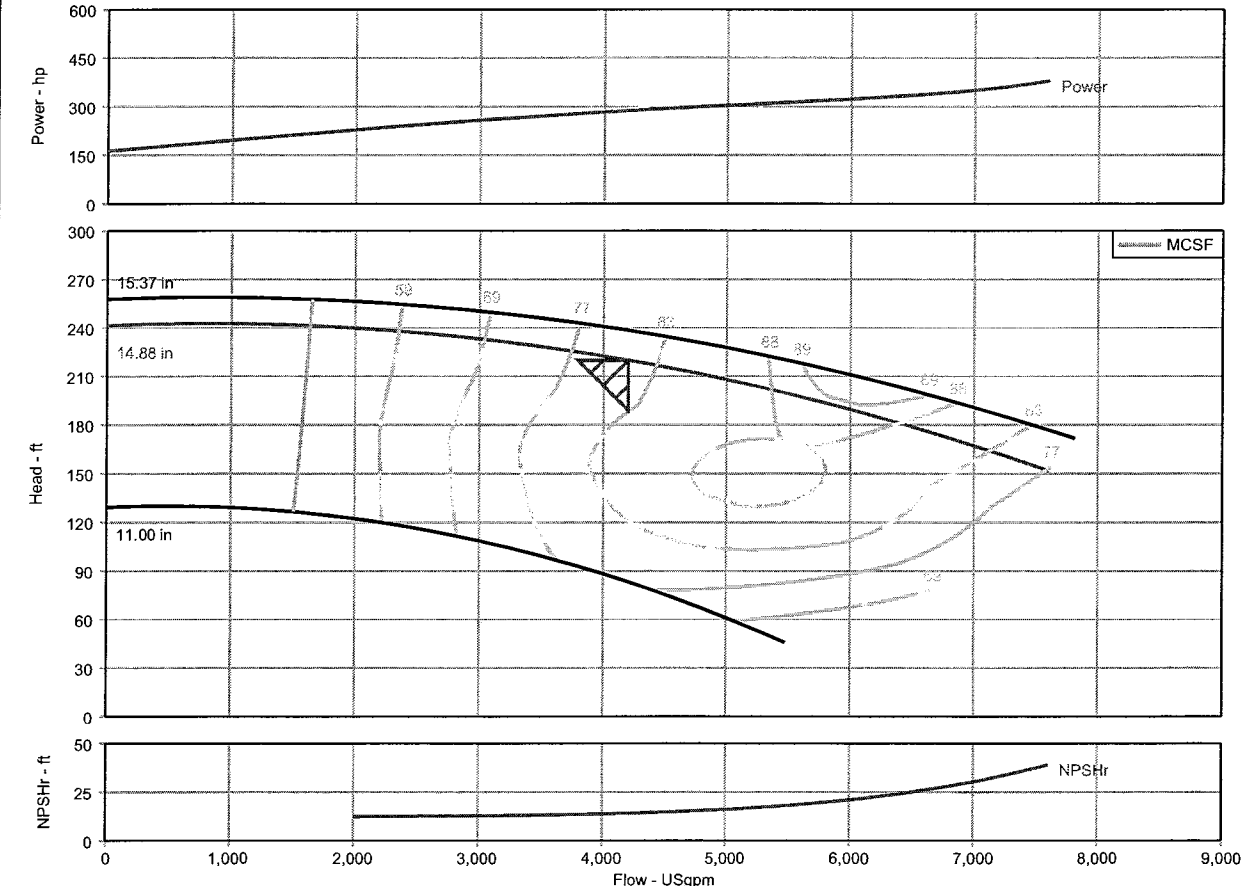
Velocity Calculations

Flow (gpm)	Pipe 1 Velocity (fps)	Pipe 2 Velocity (fps)	Pipe 3 Velocity (fps)	Pipe 4 Velocity (fps)	Pipe 5 Velocity (fps)	Pipe 6 Velocity (fps)
0	0	0	0	0	0	0
350	0.36	0.44	0.44	0	0	0
700	0.71	0.88	0.88	0	0	0
1050	1.07	1.32	1.32	0	0	0
1400	1.43	1.77	1.77	0	0	0
1750	1.79	2.21	2.21	0	0	0
2100	2.14	2.65	2.65	0	0	0
2450	2.50	3.09	3.09	0	0	0
2800	2.86	3.53	3.53	0	0	0
3150	3.22	3.97	3.97	0	0	0
3500	3.57	4.41	4.41	0	0	0
3850	3.93	4.85	4.85	0	0	0
4200	4.29	5.30	5.30	0	0	0
4550	4.65	5.74	5.74	0	0	0
4900	5.00	6.18	6.18	0	0	0
5250	5.36	6.62	6.62	0	0	0
5600	5.72	7.06	7.06	0	0	0
5950	6.08	7.50	7.50	0	0	0
6300	6.43	7.94	7.94	0	0	0
6650	6.79	8.38	8.38	0	0	0
7000	7.15	8.83	8.83	0	0	0

Pump Performance Datasheet

Project name / location	: 29701 - FINISHED - 4200 GPM	Tag Number	: Default
Consulting engineer	:	Service	:
Customer	:	PACO Model	: 1015-3/4 KPV
Customer ref. / PO	:	Quantity	: 1
Quote number	:	Quoted By (Sales Office)	:
Date last saved	: 01/27/2013 2:40 PM	Quoted By (Sales Engineer)	:

Flow, rated	: 4,200.0 USgpm	Liquid type	: Water
Differential head / pressure, rated (requested)	: 220.0 ft	Additional liquid description	:
Differential head / pressure, rated (actual)	: 220.1 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi.g	Solids concentration, by volume	: 0.00 %
NPSH available, rated	: Ample	Temperature, max	: 68.00 deg F
Frequency	: 60 Hz	Fluid density, rated / max	: 1.000 / 1.000 SG
		Viscosity, rated	: 1.00 cP
Speed, rated	: 1,780 rpm	Vapor pressure, rated	: 0.34 psi.a
Impeller diameter, rated	: 14.88 in		
Impeller diameter, maximum	: 15.37 in	Material selected	: Cast iron
Impeller diameter, minimum	: 11.00 in		
Efficiency	: 81.19 %	Maximum working pressure	: 105.1 psi.g
NPSH required / margin required	: 14.02 / 0.00 ft	Maximum allowable working pressure	: 250.0 psi.g
-	-	Maximum allowable suction pressure	: 250.0 psi.g
MCSF	: 1,633.1 USgpm	Hydrostatic test pressure	: 375.0 psi.g
Head, maximum, rated diameter	: 242.8 ft		
Head rise to shutoff	: 9.78 %	Motor sizing specification	: Based on duty point (rated power)
Flow, best eff. point (BEP)	: 5,896.1 USgpm	Margin over specification	: 0.00 %
Flow ratio (rated / BEP)	: 71.23 %	Service factor	: 1.00
Diameter ratio (rated / max)	: 96.81 %	Power, hydraulic	: 233 hp
Head ratio (rated dia / max dia)	: 92.25 %	Based on duty point (rated power)	: 287 hp
Cq/Ch/Ce [ANSI/HI 9.6.7-2010]	: 1.00 / 1.00 / 1.00	Non-overloading (max power)	: 380 hp
Selection status	: Acceptable	Nameplate motor rating	: 300 hp / 224 kW



Pump Performance Datasheet

Project name / location	: 29701 - FINISHED - 2100 GPM	Tag Number	: Default
Consulting engineer	:	Service	:
Customer	:	PACO Model	: 6015-3/4 KPV
Customer ref. / PO	:	Quantity	: 1
Quote number	:	Quoted By (Sales Office)	:
Date last saved	: 01/27/2013 2:55 PM	Quoted By (Sales Engineer)	:

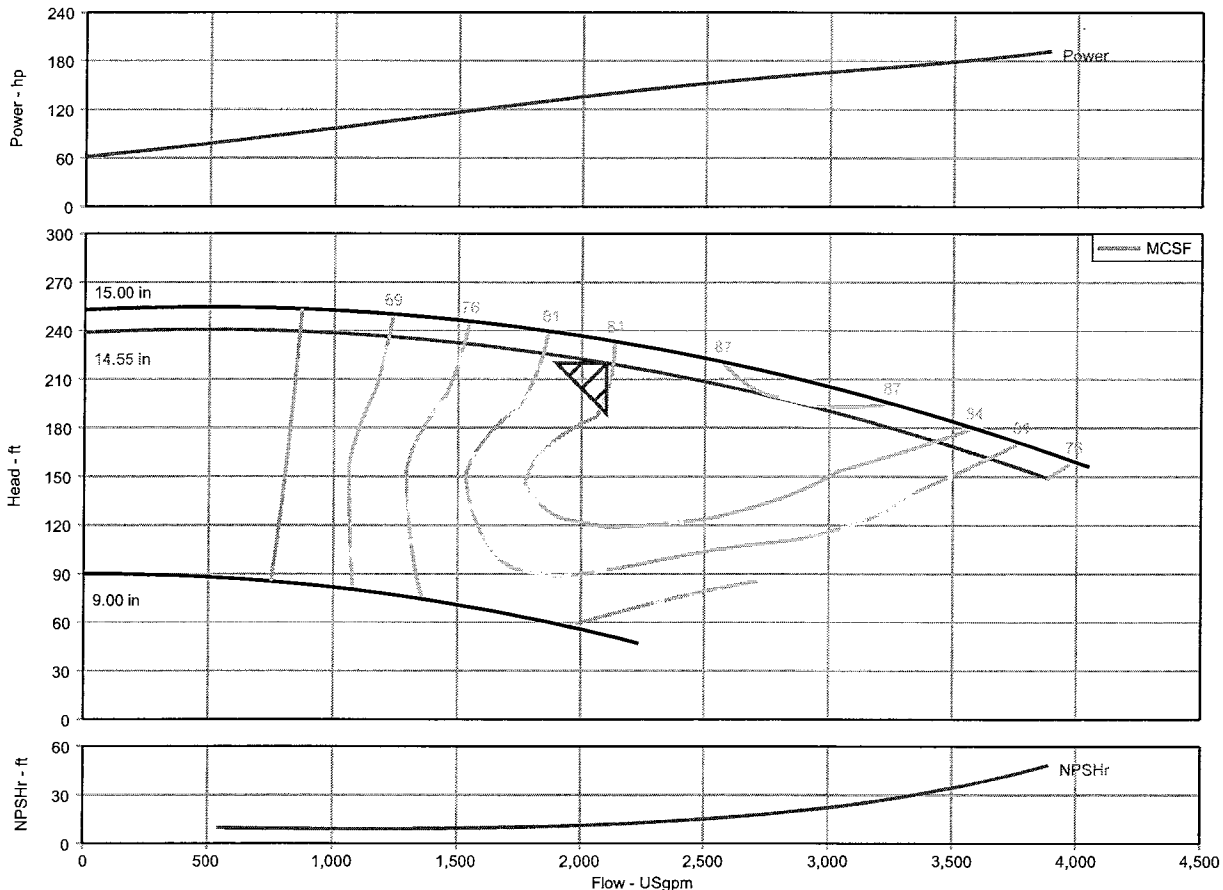
Flow, rated : 2,100.0 USgpm
Differential head / pressure, rated (requested) : 220.0 ft
Differential head / pressure, rated (actual) : 219.9 ft
Suction pressure, rated / max : 0.00 / 0.00 psi.g
NPSH available, rated : Ample
Frequency : 60 Hz

Liquid type : Water
Additional liquid description :
Solids diameter, max : 0.00 in
Solids concentration, by volume : 0.00 %
Temperature, max : 68.00 deg F
Fluid density, rated / max : 1.000 / 1.000 SG
Viscosity, rated : 1.00 cP
Vapor pressure, rated : 0.34 psi.a

Speed, rated : 1,780 rpm
Impeller diameter, rated : 14.55 in
Impeller diameter, maximum : 15.00 in
Impeller diameter, minimum : 9.00 in
Efficiency : 83.76 %
NPSH required / margin required : 11.73 / 0.00 ft
- : -
MCSF : 861.0 USgpm
Head, maximum, rated diameter : 240.7 ft
Head rise to shutoff : 8.57 %
Flow, best eff. point (BEP) : 2,819.3 USgpm
Flow ratio (rated / BEP) : 74.49 %
Diameter ratio (rated / max) : 97.00 %
Head ratio (rated dia / max dia) : 93.90 %
Cq/Ch/Ce [ANSI/HI 9.6.7-2010] : 1.00 / 1.00 / 1.00
Selection status : Acceptable

Material selected : Cast iron
Maximum working pressure : 104.2 psi.g
Maximum allowable working pressure : 250.0 psi.g
Maximum allowable suction pressure : 250.0 psi.g
Hydrostatic test pressure : 375.0 psi.g

Motor sizing specification : Based on duty point (rated power)
Margin over specification : 0.00 %
Service factor : 1.00
Power, hydraulic : 117 hp
Based on duty point (rated power) : 139 hp
Non-overloading (max power) : 192 hp
Nameplate motor rating : 150 hp / 112 kW



Forest Water System
Bedford County Public Service Authority
Available Fire Flow Summary
January 30, 2013
JN 29701

Node Label	Fire Hydrant ID	Existing System Available Fire Flow (gpm)	Proposed System Available Fire Flow (gpm)	Reduction in Available Fire Flow (gpm)
J-1323	00546	565	555	10
J-3511	00994	596	574	23
J-3686	UNK	621	604	17
J-3743	00545	640	628	12
J-3191	00900	641	556	85
J-3775	00993	643	617	26
J-2551	00954	660	630	31
J-2889	00953	673	645	28
J-3428	00849	685	677	8
J-2726	00952	692	654	38

Initial Conditions:

Twice Average Daily Demand
 Huntingwood, Althea Grove, & New London Tanks HGL = 1065'
 Existing System - City of Lynchburg WTP - Off
 Proposed System - Transmission Main - Closed

**Bedford County PSA Water Systems
Hydraulic Analysis
May 13, 2013
Narrative**

The purpose of this hydraulic analysis is to examine the effect of isolating the Forest water system from the City of Lynchburg and supplying the system from the Lakes water system with a proposed treatment plant and transmission main. A summary of the runs completed is presented below while detailed printouts of each model run follow this narrative.

Run #1 – Steady state analysis of twice average conditions for the existing Bedford County PSA Water Systems with initial conditions as follow: WVWA's Parkway Tank – Normal Low, WVWA's Falling Creek WTP – Off, Smith Mountain Lake Tank – Normal Low, High Point WTP – Off, New London Tank – Normal Low, Althea Grove Tank – Normal Low, City of Lynchburg's Huntingwood Tank – Normal Low, City of Lynchburg WTP – Off, & City of Lynchburg's connections – Active.

Purpose – To report the available fire flows in the existing system under these conditions while maintaining 20 psi for all users in the system.

Result – Please refer to the included available fire flow exhibits and fire flow report for details.

Run #2 – Steady state analysis of twice average conditions for the proposed Bedford County PSA Water Systems with initial conditions as follow: WVWA's Parkway Tank – Normal Low, WVWA's Falling Creek WTP – Off, Smith Mountain Lake Tank – Normal Low, Proposed WTP – Off, Proposed BCPSA High Point Transmission Line – Constructed – Closed, New London Tank – Normal Low, Althea Grove Tank – Normal Low, & City of Lynchburg's connections – Closed.

Purpose – To report the available fire flows in the proposed system under these conditions while maintaining 20 psi for all users in the system.

Result – Please refer to the included available fire flow exhibits and fire flow report for details.

Run #1 – Steady state analysis of twice average conditions for the existing Bedford County PSA Water Systems with initial conditions as follow:

Stewartsville Water System:

WVWA's Parkway Tank – Normal Low (1323')

WVWA's Falling Creek WTP – Off

Lakes Water System:

Smith Mountain Lake Tank – Normal Low (1219')

High Point WTP – Off

Forest Water System:

New London Tank – Normal Low (1065')

Althea Grove Tank – Normal Low (1065')

City of Lynchburg's Huntingwood Tank – Normal Low (1065')

City of Lynchburg WTP – Off

City of Lynchburg's connections – Active

Purpose – To report the available fire flows in the existing system under these conditions while maintaining 20 psi for all users in the system.

Result – Please refer to the included available fire flow exhibits and fire flow report for details.

**BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013**

Run 1 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.
Existing Water System.

All Tanks at Normal Low Level, High Point WTP - Off, & Lynchburg WTP - Off.

Steady State Analysis

Junction Report - sorted by pressure

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
8695	J-4226	680.00	<None>	(N/A)	(N/A)	(N/A)
8701	J-4227	1079.00	<None>	(N/A)	(N/A)	(N/A)
8705	J-4228	1112.00	<None>	(N/A)	(N/A)	(N/A)
8707	J-4229	1110.00	<None>	(N/A)	(N/A)	(N/A)
8709	J-4230	985.00	<None>	(N/A)	(N/A)	(N/A)
8713	J-4231	607.00	<None>	(N/A)	(N/A)	(N/A)
8716	J-4232	1030.00	<None>	(N/A)	(N/A)	(N/A)
8719	J-4233	1043.00	<None>	(N/A)	(N/A)	(N/A)
8721	J-4234	916.00	<None>	(N/A)	(N/A)	(N/A)
8722	J-4235	979.00	<None>	(N/A)	(N/A)	(N/A)
2243	J-1198	1025.04	Tank_Node	1.08	1064.86	17.23
387	J-211	1017.35	Tank_Node	0.08	1064.88	20.56
386	J-210	1016.56	Tank_Node	0.08	1064.88	20.91
2242	J-1197	1008.68	Forest	0.48	1064.86	24.31
7305	J-3957	1007.03	Forest	0.48	1064.86	25.02
2354	J-1262	760.55	Forest	1.48	825.35	28.04
220	J-103	996.47	Forest	0.08	1064.45	29.41
4527	J-2373	996.31	Forest	0.28	1064.45	29.48
219	J-102	996.18	Forest	0.08	1064.45	29.54
2316	J-1242	756.89	Forest	0.88	825.50	29.68
253	J-125	992.56	Forest	0.08	1064.44	31.10
252	J-124	992.29	Forest	0.28	1064.44	31.21
6401	J-3452	991.91	Forest	0.68	1064.87	31.57
6400	J-3451	991.70	Forest	0.48	1064.87	31.65
4433	J-2323	993.46	Lakes	1.24	1068.85	32.62
2909	J-1575	947.22	Lakes	0.37	1022.90	32.74
1726	J-877	987.82	Forest	0.48	1064.36	33.12
2560	J-1375	946.32	Lakes	0.55	1022.94	33.15
2534	J-1360	945.28	Lakes	0.46	1022.88	33.57
1287	J-668	985.88	Forest	0.68	1063.87	33.74
2427	J-1300	944.12	Lakes	0.20	1022.96	34.11
2933	J-1586	914.04	Lakes	0.63	993.43	34.35
1725	J-876	984.63	Forest	0.68	1064.36	34.50
6790	J-3681	912.74	Lakes	0.20	993.47	34.93
724	J-417	900.05	Forest	0.88	981.49	35.24
6791	J-3682	911.31	Lakes	0.20	993.47	35.55
2650	J-1427	907.90	Lakes	0.55	991.26	36.07
2036	J-1077	939.35	Lakes	0.81	1022.88	36.14
4709	J-2476	896.26	Forest	0.08	981.49	36.88
555	J-316	896.02	Forest	0.48	981.49	36.98
556	J-317	895.60	Forest	0.68	981.49	37.16
4045	J-2183	906.88	Lakes	0.20	993.48	37.47
1825	J-941	972.00	Forest	0.68	1059.15	37.71
1824	J-940	972.00	Forest	0.88	1059.15	37.71
6882	J-3735	975.61	Forest	0.28	1063.16	37.88
3903	J-2119	905.70	Lakes	0.20	993.45	37.96
2296	J-1230	737.36	Forest	1.48	825.36	38.08
1374	J-691	974.62	Forest	0.68	1063.16	38.31
4447	J-2327	904.74	Lakes	0.63	993.44	38.38
645	J-371	975.28	Forest	0.48	1064.33	38.53
6334	J-3412	904.37	Lakes	0.20	993.44	38.54
646	J-372	974.88	Forest	0.08	1064.36	38.72
4870	J-2566	974.83	Forest	0.88	1064.33	38.72
3747	J-2045	974.49	Forest	0.68	1064.83	39.09
6335	J-3413	902.79	Lakes	0.20	993.44	39.22
6281	J-3381	973.92	Forest	0.88	1064.83	39.33
2657	J-1431	890.34	Forest	0.88	981.49	39.44
2558	J-1374	900.00	Lakes	0.29	991.16	39.44
2167	J-1152	973.02	Forest	0.68	1064.83	39.72
548	J-312	972.00	Forest	0.08	1064.21	39.89
4511	J-2364	972.00	Forest	0.48	1064.21	39.89
5811	J-3108	901.12	Lakes	0.29	993.48	39.96
7297	J-3954	889.03	Forest	0.28	981.48	40.00
4707	J-2475	888.98	Forest	0.28	981.48	40.02
6276	J-3378	874.19	Lakes	0.20	967.37	40.31
6277	J-3379	873.94	Lakes	0.20	967.37	40.42
4706	J-2474	888.00	Forest	0.48	981.48	40.44
5483	J-2919	964.00	Forest	0.28	1057.66	40.52
2635	J-1418	965.34	Forest	0.48	1059.15	40.59
3229	J-1752	899.51	Lakes	0.20	993.44	40.64
5484	J-2920	963.65	Forest	0.48	1057.66	40.67
4046	J-2184	899.47	Lakes	0.37	993.48	40.67
1667	J-838	928.91	Lakes	0.20	1022.93	40.68
6370	J-3434	899.11	Lakes	0.20	993.44	40.81
5961	J-3191	964.80	Forest	0.68	1059.15	40.82
7909	J-4143	886.95	Forest	0.68	981.48	40.90
547	J-311	969.55	Forest	1.68	1064.19	40.95
2636	J-1419	964.20	Forest	0.48	1059.15	41.08
3230	J-1753	898.45	Lakes	0.20	993.44	41.10
3970	J-2150	962.14	Forest	0.48	1057.61	41.31
2760	J-1492	896.95	Lakes	0.37	993.44	41.75
3011	J-1621	894.73	Lakes	1.06	991.30	41.78
3959	J-2145	966.29	Forest	0.68	1063.57	42.09
4794	J-2524	966.14	Forest	0.48	1063.57	42.15
1039	J-564	884.00	Forest	0.08	981.48	42.18
891	J-500	960.04	Forest	0.88	1057.75	42.28
2322	J-1245	892.96	Lakes	0.37	991.16	42.49
2860	J-1550	895.17	Lakes	0.55	993.43	42.51
134	J-66	966.58	Forest	0.08	1064.92	42.54

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2303	J-1234	894.73	Lakes	1.15	993.48	42.73
6417	J-3461	966.15	Forest	0.28	1064.92	42.73
1668	J-839	923.66	Lakes	0.37	1022.91	42.94
4731	J-2489	964.69	Forest	1.08	1063.98	42.96
403	J-221	964.62	Forest	0.08	1063.98	42.98
7742	J-4106	882.09	Forest	0.88	981.48	43.00
404	J-222	964.54	Forest	0.08	1063.98	43.02
437	J-243	964.29	Forest	0.48	1063.97	43.13
2805	J-1519	963.79	Forest	1.48	1063.91	43.32
1483	J-744	958.70	Forest	0.48	1058.95	43.37
6742	J-3652	963.89	Forest	0.48	1064.16	43.38
2280	J-1220	890.97	Lakes	0.55	991.26	43.39
2166	J-1151	964.52	Forest	0.08	1064.83	43.40
1286	J-667	963.42	Forest	0.08	1064.16	43.59
3162	J-1712	964.01	Forest	0.48	1064.83	43.62
5104	J-2702	879.93	Forest	0.68	981.48	43.93
5103	J-2701	879.78	Forest	0.68	981.48	44.00
3416	J-1859	963.05	Forest	0.48	1064.85	44.05
6709	J-3633	962.84	Forest	0.88	1064.83	44.13
2422	J-1297	889.14	Lakes	0.20	991.16	44.14
2026	J-1070	888.99	Lakes	0.20	991.16	44.20
2275	J-1217	960.04	Forest	0.88	1062.35	44.26
5312	J-2820	959.77	Forest	0.08	1062.35	44.38
7741	J-4105	878.50	Forest	0.68	981.48	44.55
6945	J-3772	955.32	Forest	0.08	1058.95	44.84
133	J-65	960.72	Forest	0.48	1064.92	45.08
2283	J-1222	721.24	Forest	1.08	825.50	45.11
3016	J-1622	857.19	Lakes	2.80	961.54	45.15
6946	J-3773	954.48	Forest	0.08	1058.95	45.20
5012	J-2649	959.38	Forest	0.08	1064.51	45.49
3009	J-1620	855.41	Lakes	0.98	960.77	45.58
361	J-194	959.12	Forest	0.08	1064.51	45.60
6540	J-3532	959.45	Forest	0.68	1064.86	45.60
333	J-176	958.79	Forest	0.08	1064.51	45.74
332	J-175	958.68	Forest	0.08	1064.51	45.79
6541	J-3533	958.85	Forest	0.68	1064.86	45.86
3137	J-1697	952.48	Forest	0.28	1059.16	46.15
3136	J-1696	952.40	Forest	0.28	1059.16	46.19
3415	J-1858	958.02	Forest	0.48	1064.85	46.22
1482	J-743	951.89	Forest	0.28	1058.99	46.33
5494	J-2925	951.87	Forest	0.28	1058.99	46.34
4967	J-2623	952.00	Forest	0.48	1059.16	46.36
4968	J-2624	951.97	Forest	1.48	1059.16	46.37
2206	J-1176	957.46	Forest	0.28	1064.86	46.47
6524	J-3523	951.76	Forest	1.28	1059.16	46.47
3833	J-2085	951.59	Forest	0.48	1059.16	46.54
6603	J-3570	950.26	Forest	0.08	1057.85	46.55
3142	J-1700	949.88	Forest	0.08	1057.47	46.55
879	J-494	949.76	Forest	0.88	1057.75	46.72
3143	J-1701	949.41	Forest	0.88	1057.47	46.76
1152	J-608	949.78	Forest	0.28	1057.85	46.76
5571	J-2969	949.13	Forest	0.08	1057.75	46.99
5822	J-3114	872.71	Forest	0.68	981.49	47.06
5931	J-3174	948.50	Forest	0.28	1057.44	47.14
3740	J-2041	948.31	Forest	0.88	1057.44	47.22
2276	J-1218	953.15	Forest	0.88	1062.35	47.24
6069	J-3254	857.94	Lakes	0.46	967.36	47.34
6070	J-3255	857.78	Lakes	0.20	967.36	47.41
1121	J-597	948.00	Forest	0.28	1057.72	47.47
6575	J-3554	948.00	Forest	0.68	1057.72	47.47
2947	J-1593	857.48	Lakes	0.20	967.36	47.54
1119	J-596	871.43	Forest	1.28	981.49	47.61
3006	J-1619	857.03	Lakes	0.46	967.36	47.73
2001	J-1055	912.45	Lakes	0.37	1022.87	47.78
4000	J-2163	946.70	Forest	0.48	1057.41	47.90
887	J-498	951.40	Forest	0.88	1062.35	48.00
2348	J-1259	948.00	Forest	0.08	1059.10	48.07
8457	J-4180	948.00	Forest	0.08	1059.10	48.07
8459	J-4181	948.00	Forest	0.08	1059.10	48.07
8461	J-4182	948.00	Forest	0.08	1059.10	48.07
8471	J-4187	948.00	Forest	0.08	1059.10	48.07
620	J-355	948.00	Forest	0.08	1059.11	48.07
5709	J-3049	948.00	Forest	0.08	1059.11	48.07
5226	J-2770	870.37	Forest	1.08	981.49	48.08
3021	J-1624	953.76	Forest	1.08	1064.90	48.08
2064	J-1092	953.22	Forest	0.68	1064.74	48.25
481	J-270	869.87	Forest	0.08	981.48	48.29
2238	J-1195	881.71	Lakes	0.55	993.43	48.34
480	J-269	869.32	Forest	0.08	981.48	48.53
5227	J-2771	869.25	Forest	1.08	981.49	48.56
2769	J-1497	869.06	Forest	0.88	981.48	48.64
2257	J-1206	952.00	Forest	0.88	1064.87	48.83
537	J-305	949.32	Forest	0.28	1062.34	48.90
621	J-356	945.94	Forest	0.08	1059.11	48.96
2224	J-1187	712.26	Forest	0.68	825.46	48.98
3188	J-1727	944.00	Forest	0.48	1057.44	49.08
5553	J-2958	944.00	Forest	0.08	1057.44	49.08
3148	J-1704	943.66	Forest	0.68	1057.18	49.11
3710	J-2024	943.79	Forest	0.28	1057.44	49.17
5240	J-2779	945.49	Forest	0.48	1059.16	49.18
4609	J-2421	943.62	Forest	0.68	1057.34	49.20
3067	J-1653	943.39	Forest	0.08	1057.18	49.23
3189	J-1728	943.61	Forest	0.08	1057.44	49.25
705	J-406	943.60	Forest	1.68	1057.47	49.27
5239	J-2778	945.24	Forest	0.28	1059.16	49.29
3068	J-1654	943.24	Forest	0.28	1057.18	49.29
704	J-405	943.43	Forest	0.08	1057.47	49.34
4610	J-2422	943.27	Forest	0.88	1057.34	49.35
3971	J-2151	943.50	Forest	0.48	1057.58	49.36

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5984	J-3204	943.75	Forest	0.08	1057.84	49.36
3482	J-1897	945.01	Forest	0.48	1059.10	49.36
4773	J-2512	949.65	Forest	0.08	1063.90	49.43
6398	J-3450	948.08	Forest	0.08	1062.34	49.43
5983	J-3203	943.58	Forest	0.48	1057.84	49.43
759	J-434	949.47	Forest	0.28	1063.90	49.51
7216	J-3918	874.53	Lakes	0.20	988.99	49.52
4676	J-2458	874.49	Lakes	0.20	988.99	49.54
2321	J-1244	876.58	Lakes	0.37	991.16	49.57
1058	J-573	943.03	Forest	1.48	1057.67	49.60
3289	J-1789	944.36	Forest	0.48	1059.10	49.64
1961	J-1029	944.43	Forest	1.08	1059.18	49.65
7027	J-3819	942.79	Forest	1.48	1057.58	49.66
3290	J-1790	944.28	Forest	0.28	1059.10	49.68
2689	J-1449	866.61	Forest	2.29	981.47	49.70
4677	J-2459	874.06	Lakes	0.20	988.99	49.72
523	J-296	944.14	Forest	0.48	1059.16	49.76
7886	J-4139	942.56	Forest	1.28	1057.69	49.81
7215	J-3917	873.73	Lakes	0.20	988.99	49.87
5092	J-2695	948.90	Forest	0.48	1064.19	49.88
4738	J-2493	942.53	Forest	0.88	1057.92	49.92
1221	J-638	942.51	Forest	0.28	1057.92	49.93
1644	J-825	848.00	Lakes	0.20	963.60	50.02
2417	J-1294	848.00	Lakes	0.20	963.60	50.02
1641	J-823	845.61	Lakes	0.20	961.56	50.17
3254	J-1768	948.22	Forest	0.48	1064.19	50.17
1587	J-788	845.50	Lakes	0.20	961.57	50.21
2207	J-1177	948.77	Forest	0.88	1064.85	50.22
3746	J-2044	948.39	Forest	0.68	1064.83	50.37
1588	J-789	845.11	Lakes	0.81	961.56	50.38
2829	J-1532	864.77	Forest	0.48	981.47	50.49
3255	J-1769	946.94	Forest	0.48	1064.19	50.73
1016	J-554	941.75	Forest	0.08	1059.13	50.79
6925	J-3761	943.46	Forest	0.48	1060.87	50.80
4080	J-2199	864.05	Forest	0.28	981.48	50.81
5286	J-2805	941.58	Forest	0.28	1059.13	50.86
2776	J-1501	863.75	Forest	1.08	981.47	50.93
5074	J-2686	939.93	Forest	2.09	1057.88	51.03
539	J-306	939.80	Forest	0.48	1057.88	51.09
307	J-159	939.30	Forest	0.08	1057.47	51.13
6562	J-3546	939.49	Forest	0.28	1057.69	51.14
216	J-100	939.26	Forest	0.08	1057.47	51.14
217	J-101	939.26	Forest	0.08	1057.47	51.15
213	J-98	939.25	Forest	0.08	1057.47	51.15
214	J-99	939.25	Forest	0.08	1057.47	51.15
710	J-408	940.94	Forest	0.68	1059.20	51.16
2055	J-1088	946.39	Forest	0.08	1064.88	51.27
6563	J-3547	939.19	Forest	0.48	1057.69	51.27
290	J-149	938.91	Forest	0.08	1057.47	51.30
540	J-307	939.16	Forest	0.88	1057.88	51.37
2450	J-1314	841.85	Lakes	1.50	960.69	51.42
5951	J-3186	938.57	Forest	0.48	1057.47	51.44
758	J-433	944.87	Forest	0.88	1063.87	51.48
2002	J-1056	903.79	Lakes	0.63	1022.86	51.52
7413	J-3997	938.54	Forest	1.88	1057.69	51.55
2339	J-1254	872.00	Lakes	0.89	991.28	51.61
4159	J-2233	941.44	Forest	1.28	1060.87	51.67
2449	J-1313	841.25	Lakes	1.06	960.69	51.67
775	J-442	937.89	Forest	0.68	1057.47	51.74
6471	J-3492	937.89	Forest	1.08	1057.49	51.74
2281	J-1221	871.65	Lakes	0.55	991.26	51.75
6472	J-3493	937.77	Forest	1.08	1057.49	51.80
4114	J-2213	939.41	Forest	1.28	1059.23	51.84
4829	J-2543	937.58	Forest	0.48	1057.45	51.86
5498	J-2927	937.77	Forest	0.68	1057.69	51.88
5132	J-2717	943.61	Forest	0.48	1063.57	51.90
6085	J-3264	937.63	Forest	0.08	1057.69	51.94
1057	J-572	937.63	Forest	0.28	1057.69	51.94
4828	J-2542	937.15	Forest	0.28	1057.45	52.05
1969	J-1034	843.27	Lakes	0.46	963.60	52.06
772	J-440	937.32	Forest	0.28	1057.69	52.08
3797	J-2068	943.18	Forest	0.28	1063.57	52.09
2690	J-1450	861.06	Forest	1.08	981.47	52.09
765	J-437	943.33	Forest	0.48	1063.83	52.13
2007	J-1059	938.56	Forest	1.88	1059.11	52.15
536	J-304	941.68	Forest	0.08	1062.35	52.21
2258	J-1207	944.14	Forest	0.88	1064.87	52.23
2708	J-1461	860.74	Forest	1.28	981.47	52.24
6076	J-3259	868.24	Lakes	0.20	988.99	52.24
1532	J-761	943.86	Forest	0.08	1064.66	52.27
5056	J-2676	942.98	Forest	0.08	1063.83	52.29
3042	J-1637	936.55	Forest	0.08	1057.44	52.31
4536	J-2378	936.45	Forest	0.28	1057.44	52.35
3041	J-1636	936.41	Forest	0.08	1057.44	52.36
7576	J-4054	936.71	Forest	0.08	1057.86	52.42
802	J-455	936.25	Forest	0.88	1057.48	52.45
4821	J-2538	936.57	Forest	0.08	1057.86	52.48
4820	J-2537	936.42	Forest	0.28	1057.86	52.54
6075	J-3258	867.47	Lakes	0.20	988.99	52.58
2680	J-1444	869.73	Lakes	1.06	991.28	52.59
5601	J-2986	936.00	Forest	0.88	1057.59	52.61
5602	J-2987	936.00	Forest	0.48	1057.59	52.61
2304	J-1235	871.88	Lakes	0.63	993.48	52.61
4936	J-2605	936.20	Forest	0.28	1057.82	52.62
4937	J-2606	936.16	Forest	0.08	1057.82	52.64
2033	J-1075	936.00	Forest	1.08	1057.81	52.70
6303	J-3394	935.56	Forest	0.48	1057.44	52.73
1498	J-749	936.90	Forest	0.28	1058.91	52.79
2517	J-1350	941.92	Forest	0.08	1063.97	52.80

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6302	J-3393	935.38	Forest	0.68	1057.44	52.81
5070	J-2684	859.40	Forest	0.48	981.48	52.82
1782	J-913	937.14	Forest	0.48	1059.33	52.87
5069	J-2683	859.13	Forest	2.49	981.48	52.94
695	J-400	940.00	Forest	1.48	1062.42	52.96
4603	J-2418	941.44	Forest	1.28	1063.97	53.01
7268	J-3943	942.17	Forest	0.28	1064.87	53.09
6109	J-3278	936.20	Forest	0.08	1058.91	53.09
470	J-263	858.65	Forest	0.68	981.48	53.14
848	J-478	941.64	Forest	0.08	1064.48	53.15
524	J-297	936.31	Forest	0.48	1059.16	53.15
4857	J-2559	941.49	Forest	0.08	1064.48	53.21
7088	J-3853	936.00	Forest	0.28	1059.03	53.23
1018	J-555	934.36	Forest	0.48	1057.49	53.27
4054	J-2186	934.30	Forest	0.88	1057.45	53.28
7814	J-4124	934.41	Forest	0.88	1057.67	53.33
6349	J-3421	934.11	Forest	2.49	1057.47	53.37
6350	J-3422	933.83	Forest	1.28	1057.47	53.49
7269	J-3944	941.14	Forest	0.88	1064.87	53.53
531	J-301	933.71	Forest	0.48	1057.74	53.66
416	J-230	857.11	Forest	0.28	981.48	53.81
3798	J-2069	939.15	Forest	1.08	1063.57	53.83
2295	J-1229	700.89	Forest	0.88	825.36	53.85
2639	J-1420	939.30	Forest	0.88	1063.79	53.86
2363	J-1267	934.99	Forest	0.68	1059.48	53.86
6747	J-3655	856.85	Forest	1.08	981.48	53.92
6748	J-3656	856.27	Forest	0.08	981.48	54.17
4763	J-2506	856.21	Forest	0.28	981.48	54.20
2605	J-1401	938.40	Forest	0.08	1063.90	54.30
415	J-229	855.86	Forest	0.28	981.48	54.35
773	J-441	932.00	Forest	1.88	1057.70	54.38
4802	J-2528	855.76	Forest	0.08	981.48	54.40
4831	J-2544	938.17	Forest	0.08	1063.90	54.40
3824	J-2080	931.79	Forest	1.28	1057.52	54.40
2827	J-1531	865.51	Lakes	1.15	991.26	54.40
5317	J-2823	938.01	Forest	0.08	1063.78	54.41
5874	J-3143	931.70	Forest	0.08	1057.47	54.42
4984	J-2632	931.70	Forest	0.28	1057.54	54.44
930	J-514	932.00	Forest	0.08	1057.91	54.48
5037	J-2664	932.00	Forest	0.68	1057.91	54.48
4985	J-2633	931.54	Forest	1.28	1057.54	54.51
2225	J-1188	699.45	Forest	0.08	825.46	54.52
1063	J-575	931.49	Forest	0.68	1057.59	54.56
228	J-108	855.36	Forest	0.08	981.48	54.57
3494	J-1904	931.33	Forest	1.48	1057.47	54.58
229	J-109	855.33	Forest	0.08	981.48	54.58
4424	J-2321	931.63	Forest	0.88	1057.78	54.58
2938	J-1588	938.67	Forest	1.48	1064.87	54.60
4496	J-2355	938.62	Forest	0.08	1064.87	54.62
7262	J-3940	862.72	Lakes	0.37	988.99	54.63
675	J-390	931.25	Forest	0.08	1057.54	54.64
5307	J-2817	932.74	Forest	0.68	1059.04	54.65
1635	J-819	864.84	Lakes	0.37	991.17	54.65
450	J-251	937.45	Forest	0.08	1063.79	54.66
5308	J-2818	932.69	Forest	0.08	1059.04	54.67
6024	J-3226	932.84	Forest	0.88	1059.21	54.67
7009	J-3809	931.35	Forest	0.68	1057.78	54.70
4789	J-2521	937.42	Forest	0.08	1063.95	54.74
444	J-247	932.59	Forest	0.08	1059.21	54.78
3219	J-1746	938.17	Forest	0.28	1064.87	54.82
532	J-302	931.04	Forest	0.28	1057.74	54.82
2584	J-1388	935.69	Forest	1.28	1062.41	54.83
2516	J-1349	937.20	Forest	0.88	1063.97	54.85
810	J-459	930.61	Forest	0.28	1057.47	54.89
2614	J-1406	937.01	Forest	0.88	1063.90	54.90
3434	J-1869	931.85	Forest	0.48	1058.95	54.99
8519	J-4211	930.32	Forest	0.08	1057.47	55.01
449	J-250	936.35	Forest	0.08	1063.78	55.13
2334	J-1252	865.95	Lakes	1.24	993.42	55.15
3495	J-1905	929.96	Forest	1.08	1057.47	55.17
4790	J-2522	936.40	Forest	0.08	1063.95	55.19
7263	J-3941	861.41	Lakes	0.20	988.99	55.20
941	J-519	930.26	Forest	0.08	1057.92	55.23
7819	J-4125	929.67	Forest	1.28	1057.42	55.27
2824	J-1530	929.90	Forest	1.68	1057.84	55.35
3202	J-1736	931.16	Forest	0.08	1059.10	55.35
7010	J-3810	929.78	Forest	0.68	1057.78	55.38
3834	J-2086	931.14	Forest	0.28	1059.16	55.38
2153	J-1143	865.32	Lakes	0.46	993.39	55.41
5865	J-3138	929.72	Forest	0.68	1057.84	55.43
1661	J-834	865.31	Lakes	0.72	993.43	55.43
443	J-246	931.05	Forest	0.88	1059.21	55.45
985	J-540	930.92	Forest	0.88	1059.09	55.45
4913	J-2591	930.80	Forest	0.48	1059.10	55.51
6959	J-3780	929.16	Forest	0.88	1057.47	55.51
3444	J-1875	929.48	Forest	1.28	1057.84	55.53
3201	J-1735	930.51	Forest	0.48	1059.10	55.64
3968	J-2149	852.87	Forest	0.68	981.48	55.64
6469	J-3491	930.19	Forest	0.28	1058.95	55.71
2748	J-1485	930.15	Forest	0.28	1058.95	55.73
2604	J-1400	935.04	Forest	1.28	1063.90	55.75
6958	J-3779	928.59	Forest	1.88	1057.47	55.76
2247	J-1200	934.88	Forest	0.68	1063.95	55.84
674	J-389	928.40	Forest	0.28	1057.55	55.88
4928	J-2600	929.73	Forest	0.08	1059.09	55.97
1940	J-1015	929.72	Forest	0.68	1059.10	55.98
6297	J-3390	744.26	Forest	0.28	873.78	56.04
2670	J-1438	843.95	Lakes	0.89	973.53	56.06
1401	J-698	929.43	Forest	0.28	1059.04	56.07

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1452	J-728	929.36	Forest	0.08	1059.03	56.10
4711	J-2477	851.74	Forest	0.88	981.47	56.13
4784	J-2518	934.95	Forest	0.88	1064.74	56.15
3863	J-2099	934.93	Forest	0.68	1064.74	56.16
3705	J-2021	851.56	Forest	1.08	981.47	56.21
447	J-249	928.00	Forest	0.28	1057.96	56.23
5575	J-2971	928.00	Forest	0.28	1057.96	56.23
3843	J-2090	927.60	Forest	0.48	1057.59	56.24
2583	J-1387	932.33	Forest	1.68	1062.42	56.28
6934	J-3766	929.26	Forest	0.48	1059.34	56.28
2520	J-1352	929.20	Forest	0.08	1059.33	56.30
2519	J-1351	929.04	Forest	0.08	1059.33	56.37
6298	J-3391	743.36	Forest	0.48	873.78	56.43
3497	J-1906	851.02	Forest	0.28	981.47	56.44
4319	J-2286	858.45	Lakes	0.20	988.98	56.48
4907	J-2588	931.87	Forest	0.08	1062.42	56.48
446	J-248	927.40	Forest	0.28	1057.96	56.49
2346	J-1258	928.46	Forest	0.08	1059.05	56.50
6935	J-3767	928.63	Forest	0.08	1059.34	56.55
2949	J-1594	836.41	Lakes	0.81	967.18	56.58
1746	J-890	928.55	Forest	0.28	1059.33	56.58
2675	J-1441	850.65	Forest	1.08	981.47	56.60
384	J-209	928.14	Forest	0.08	1059.04	56.63
1636	J-820	860.22	Lakes	0.46	991.17	56.66
3487	J-1900	928.11	Forest	0.68	1059.10	56.67
6062	J-3250	857.96	Lakes	0.20	988.98	56.69
6061	J-3249	857.96	Lakes	0.63	988.98	56.69
2350	J-1260	836.24	Lakes	0.72	967.42	56.75
383	J-208	927.84	Forest	0.08	1059.05	56.77
4771	J-2511	850.26	Forest	0.08	981.47	56.77
2980	J-1606	862.16	Lakes	0.55	993.38	56.78
4410	J-2316	926.36	Forest	3.29	1057.67	56.81
7977	J-4154	926.10	Forest	0.28	1057.42	56.81
2101	J-1110	862.05	Lakes	0.20	993.39	56.82
2935	J-1587	857.64	Lakes	0.20	988.98	56.83
1468	J-736	927.52	Forest	0.28	1058.88	56.83
6130	J-3291	926.11	Forest	0.68	1057.50	56.84
2100	J-1109	861.97	Lakes	0.20	993.39	56.86
5824	J-3115	926.45	Forest	0.88	1057.92	56.88
1662	J-835	861.95	Lakes	0.20	993.43	56.88
6977	J-3790	926.19	Forest	1.28	1057.69	56.89
6976	J-3789	926.01	Forest	0.88	1057.69	56.97
5636	J-3006	925.84	Forest	1.08	1057.52	56.97
5269	J-2795	927.19	Forest	0.48	1058.88	56.97
4311	J-2285	925.37	Forest	1.28	1057.05	56.97
7682	J-4086	857.25	Lakes	0.29	988.98	56.99
1973	J-1037	931.48	Forest	0.88	1063.25	57.01
3825	J-2081	925.73	Forest	1.08	1057.52	57.02
4360	J-2299	925.65	Forest	2.09	1057.50	57.04
2324	J-1246	858.94	Lakes	0.72	991.22	57.23
7031	J-3821	930.96	Forest	0.08	1063.25	57.23
1946	J-1019	926.80	Forest	1.08	1059.10	57.24
634	J-364	926.63	Forest	0.88	1059.05	57.29
6968	J-3785	926.41	Forest	0.28	1059.10	57.41
6627	J-3585	926.56	Forest	0.48	1059.27	57.42
948	J-523	925.17	Forest	0.08	1057.92	57.43
4259	J-2267	932.00	Forest	0.68	1064.83	57.47
6702	J-3629	931.94	Forest	0.28	1064.83	57.49
2493	J-1337	1068.30	Fox_Run	0.68	1201.27	57.53
6626	J-3584	926.13	Forest	1.28	1059.27	57.61
4340	J-2292	924.24	Forest	1.28	1057.47	57.64
2674	J-1440	848.12	Forest	0.28	981.47	57.70
468	J-262	847.98	Forest	0.08	981.48	57.76
2015	J-1064	828.90	Lakes	0.46	962.41	57.76
5953	J-3187	847.96	Forest	0.48	981.48	57.77
3761	J-2050	923.87	Forest	2.09	1057.45	57.79
4089	J-2204	923.64	Forest	1.28	1057.47	57.90
6362	J-3429	923.53	Forest	2.09	1057.47	57.95
467	J-261	847.52	Forest	1.48	981.48	57.96
3670	J-2000	929.28	Forest	0.48	1063.25	57.96
6164	J-3311	930.73	Forest	0.08	1064.85	58.03
5676	J-3030	927.71	Forest	0.08	1062.00	58.10
4900	J-2584	929.93	Forest	0.28	1064.43	58.19
971	J-533	929.65	Forest	0.08	1064.43	58.31
84	J-37	927.15	Forest	0.08	1062.00	58.34
4184	J-2243	922.48	Forest	1.28	1057.42	58.38
1222	J-639	922.77	Forest	0.68	1057.92	58.47
2661	J-1433	846.24	Forest	0.88	981.47	58.51
3555	J-1938	853.72	Lakes	0.20	988.98	58.52
5086	J-2692	922.11	Forest	0.48	1057.41	58.54
2704	J-1459	832.00	Lakes	0.72	967.35	58.56
7068	J-3841	922.28	Forest	0.88	1057.68	58.58
6163	J-3310	929.42	Forest	0.08	1064.85	58.60
6490	J-3503	922.43	Forest	0.48	1057.92	58.62
921	J-511	922.37	Forest	0.08	1057.91	58.64
7069	J-3842	922.11	Forest	1.68	1057.68	58.66
5444	J-2897	922.11	Forest	0.48	1057.91	58.76
729	J-419	923.22	Forest	1.28	1059.06	58.77
2850	J-1544	927.84	Forest	0.88	1063.87	58.85
1650	J-828	1065.07	Fox_Run	0.48	1201.27	58.93
6816	J-3696	852.78	Lakes	0.20	988.98	58.93
5506	J-2931	921.45	Forest	1.08	1057.67	58.94
2092	J-1104	857.20	Lakes	0.37	993.43	58.94
6753	J-3659	922.78	Forest	0.48	1059.06	58.96
35	J-5	925.74	Forest	0.08	1062.03	58.97
2709	J-1462	845.10	Forest	0.48	981.47	59.00
36	J-6	925.43	Forest	1.08	1062.03	59.10
2231	J-1191	928.24	Forest	0.28	1064.85	59.11
5507	J-2932	921.04	Forest	0.68	1057.67	59.11

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1445	J-724	922.22	Forest	0.28	1058.85	59.11
2970	J-1601	922.48	Forest	0.68	1059.21	59.16
2029	J-1072	737.03	Forest	0.48	873.78	59.17
1906	J-993	922.42	Forest	0.68	1059.31	59.22
6157	J-3306	736.88	Forest	0.68	873.78	59.23
3723	J-2031	920.43	Forest	0.68	1057.41	59.27
3554	J-1937	852.00	Lakes	0.20	988.98	59.27
6158	J-3307	736.69	Forest	0.68	873.78	59.31
2091	J-1103	856.23	Lakes	0.46	993.43	59.36
2717	J-1466	823.33	Lakes	0.20	960.64	59.41
4062	J-2190	920.02	Forest	1.28	1057.42	59.45
4288	J-2277	920.11	Forest	2.09	1057.52	59.45
2145	J-1138	829.43	Lakes	0.20	967.07	59.55
5831	J-3119	920.20	Forest	1.08	1057.85	59.56
3533	J-1926	919.69	Forest	0.48	1057.42	59.59
6338	J-3415	919.65	Forest	1.68	1057.46	59.62
2954	J-1596	829.52	Lakes	0.89	967.35	59.63
4142	J-2226	920.00	Forest	1.28	1057.85	59.64
2419	J-1295	822.69	Lakes	0.55	960.64	59.69
2420	J-1296	822.62	Lakes	0.29	960.64	59.71
2966	J-1599	856.69	Forest	1.28	994.76	59.74
1944	J-1018	926.74	Forest	0.88	1064.84	59.75
5397	J-2871	919.44	Forest	3.49	1057.54	59.75
1390	J-694	920.00	Forest	2.29	1058.14	59.77
6731	J-3646	920.00	Forest	0.28	1058.14	59.77
6337	J-3414	919.27	Forest	0.48	1057.46	59.79
6248	J-3362	920.66	Forest	0.28	1058.95	59.83
4468	J-2339	926.29	Forest	0.08	1064.62	59.85
1649	J-827	1062.94	Fox_Run	0.08	1201.27	59.85
2344	J-1257	920.69	Forest	1.68	1059.03	59.85
3242	J-1760	926.26	Forest	0.08	1064.62	59.86
6104	J-3275	919.00	Forest	0.48	1057.42	59.89
5396	J-2870	919.11	Forest	2.89	1057.54	59.89
8297	J-4172	919.34	Forest	1.28	1057.86	59.93
1399	J-697	925.95	Forest	0.28	1064.64	60.01
4016	J-2170	842.76	Forest	1.48	981.48	60.02
109	J-52	925.87	Forest	0.28	1064.64	60.04
3673	J-2002	918.62	Forest	0.88	1057.41	60.05
3243	J-1761	925.83	Forest	0.28	1064.62	60.05
4534	J-2377	925.83	Forest	0.08	1064.64	60.06
100	J-47	925.82	Forest	0.68	1064.64	60.06
6121	J-3285	920.00	Forest	0.48	1058.83	60.07
6122	J-3286	920.00	Forest	0.88	1058.83	60.07
6103	J-3274	918.57	Forest	0.68	1057.42	60.07
5219	J-2766	920.39	Forest	0.88	1059.27	60.09
6285	J-3383	920.30	Forest	0.08	1059.20	60.10
4040	J-2180	918.50	Forest	0.68	1057.46	60.12
130	J-64	925.84	Forest	0.48	1064.90	60.17
5130	J-2716	924.80	Forest	0.28	1063.91	60.19
2094	J-1105	919.95	Forest	1.28	1059.06	60.19
5218	J-2765	920.13	Forest	1.08	1059.27	60.20
2889	J-1565	919.82	Forest	1.08	1058.95	60.20
2821	J-1528	918.47	Forest	1.68	1057.68	60.23
1943	J-1017	925.61	Forest	0.68	1064.85	60.24
2662	J-1434	842.15	Forest	0.88	981.47	60.28
2847	J-1542	924.51	Forest	0.28	1063.87	60.29
2424	J-1298	828.00	Lakes	0.20	967.43	60.32
2425	J-1299	828.00	Lakes	0.29	967.43	60.32
2319	J-1243	827.91	Lakes	1.41	967.41	60.35
2494	J-1338	1061.76	Fox_Run	0.28	1201.27	60.36
1892	J-984	849.37	Lakes	0.55	988.98	60.40
6286	J-3384	919.50	Forest	0.88	1059.20	60.44
3961	J-2146	917.72	Forest	1.28	1057.42	60.44
3671	J-2001	923.52	Forest	1.28	1063.25	60.45
5149	J-2726	918.04	Forest	0.88	1057.82	60.48
3134	J-1695	917.63	Forest	0.88	1057.45	60.49
3532	J-1925	917.55	Forest	0.88	1057.42	60.52
2804	J-1518	923.97	Forest	0.08	1063.91	60.54
1995	J-1051	1061.28	Fox_Run	0.08	1201.27	60.57
6249	J-3363	918.95	Forest	0.68	1058.95	60.57
3133	J-1694	917.40	Forest	0.08	1057.45	60.59
6180	J-3320	923.66	Forest	0.48	1063.87	60.66
2272	J-1215	827.19	Lakes	0.63	967.41	60.67
4005	J-2165	917.60	Forest	1.08	1057.82	60.67
2095	J-1106	918.77	Forest	0.48	1059.06	60.70
2619	J-1409	826.75	Lakes	0.55	967.07	60.71
6099	J-3272	916.99	Forest	0.08	1057.42	60.76
101	J-48	924.00	Forest	0.08	1064.64	60.85
5374	J-2857	924.00	Forest	0.08	1064.64	60.85
7021	J-3816	916.74	Forest	0.08	1057.45	60.88
5145	J-2724	917.98	Forest	0.08	1058.85	60.94
1347	J-686	916.89	Forest	2.49	1057.76	60.95
2913	J-1576	852.47	Lakes	0.29	993.37	60.96
2641	J-1421	922.91	Forest	0.08	1063.91	61.00
5697	J-3042	923.84	Forest	0.48	1064.90	61.03
2485	J-1333	918.42	Forest	0.48	1059.49	61.03
7860	J-4132	918.18	Forest	0.88	1059.27	61.04
163	J-80	918.38	Forest	0.08	1059.49	61.05
1911	J-996	923.78	Forest	1.08	1064.90	61.06
2146	J-1139	825.87	Lakes	0.37	967.07	61.09
1446	J-725	917.55	Forest	0.08	1058.85	61.13
111	J-53	923.24	Forest	0.08	1064.62	61.17
687	J-396	922.31	Forest	0.08	1063.75	61.20
2362	J-1266	918.01	Forest	0.48	1059.49	61.21
39	J-8	923.14	Forest	0.08	1064.62	61.21
38	J-7	922.91	Forest	0.48	1064.62	61.31
4483	J-2348	922.90	Forest	0.08	1064.62	61.32
1747	J-891	917.56	Forest	0.48	1059.33	61.34
5564	J-2965	915.87	Forest	1.88	1057.68	61.36

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1305	J-676	1180.99	Stewartsville	0.69	1322.92	61.41
2740	J-1480	831.56	Lakes	0.81	973.50	61.41
4449	J-2328	1180.91	Stewartsville	0.26	1322.92	61.44
2659	J-1432	824.97	Lakes	0.72	967.13	61.50
5563	J-2964	915.51	Forest	1.28	1057.68	61.51
4323	J-2287	921.53	Forest	0.88	1063.90	61.59
2703	J-1458	824.84	Lakes	0.72	967.35	61.66
5524	J-2942	916.31	Forest	0.48	1058.84	61.67
2692	J-1451	838.92	Forest	0.88	981.47	61.68
3392	J-1845	914.88	Forest	0.08	1057.45	61.68
2066	J-1093	921.55	Forest	0.28	1064.13	61.69
5585	J-2976	922.03	Forest	0.48	1064.62	61.69
5586	J-2977	922.00	Forest	0.48	1064.62	61.71
1076	J-579	919.92	Forest	0.08	1062.62	61.74
5549	J-2956	915.16	Forest	0.48	1057.90	61.75
5523	J-2941	916.08	Forest	1.48	1058.84	61.77
5548	J-2955	914.92	Forest	0.68	1057.90	61.86
2620	J-1410	824.09	Lakes	1.24	967.08	61.87
6869	J-3727	916.20	Forest	0.68	1059.26	61.90
6146	J-3300	914.31	Forest	0.48	1057.45	61.93
2216	J-1182	824.00	Lakes	1.06	967.17	61.94
3949	J-2141	851.52	Forest	1.68	994.76	61.97
8525	J-4214	914.11	Forest	0.08	1057.42	62.00
2777	J-1502	838.11	Forest	1.08	981.47	62.03
5851	J-3130	913.90	Forest	0.48	1057.42	62.09
6823	J-3700	919.01	Forest	0.28	1062.62	62.13
3246	J-1763	913.94	Forest	0.28	1057.59	62.15
3393	J-1846	913.79	Forest	0.48	1057.45	62.15
5197	J-2753	920.71	Forest	0.08	1064.39	62.16
4282	J-2275	849.69	Lakes	0.46	993.37	62.16
6927	J-3762	913.90	Forest	0.08	1057.59	62.17
2262	J-1209	823.64	Lakes	1.06	967.41	62.20
2186	J-1164	875.36	Lakes	1.41	1019.32	62.28
5796	J-3099	919.92	Forest	0.48	1063.90	62.29
6870	J-3728	915.28	Forest	1.08	1059.26	62.30
8498	J-4202	823.04	Lakes	0.55	967.07	62.32
2433	J-1304	844.90	Lakes	0.20	988.98	62.34
3405	J-1852	849.25	Lakes	0.20	993.37	62.35
5797	J-3100	919.78	Forest	0.08	1063.90	62.36
1970	J-1035	819.31	Lakes	0.72	963.60	62.42
972	J-534	920.06	Forest	0.28	1064.39	62.44
92	J-42	920.25	Forest	0.48	1064.64	62.47
1972	J-1036	918.82	Forest	0.68	1063.24	62.49
2574	J-1382	913.11	Forest	1.68	1057.54	62.49
3245	J-1762	913.15	Forest	0.08	1057.59	62.49
1105	J-592	917.86	Forest	0.08	1062.34	62.51
2017	J-1065	878.38	Lakes	0.63	1022.90	62.53
3352	J-1824	836.91	Forest	0.48	981.47	62.54
2236	J-1194	848.79	Lakes	0.98	993.42	62.58
7209	J-3914	914.61	Forest	0.28	1059.35	62.62
1769	J-905	844.21	Lakes	0.20	988.98	62.64
3441	J-1873	912.62	Forest	0.48	1057.42	62.65
6905	J-3749	914.54	Forest	2.09	1059.35	62.65
3003	J-1617	920.00	Forest	0.88	1064.85	62.67
4107	J-2210	912.00	Forest	1.48	1057.00	62.73
2695	J-1453	846.15	Lakes	0.63	991.16	62.74
2810	J-1521	912.33	Forest	0.88	1057.45	62.79
6906	J-3750	914.23	Forest	0.08	1059.35	62.79
2360	J-1265	848.21	Lakes	0.72	993.37	62.80
5267	J-2794	912.62	Forest	1.08	1057.91	62.86
6300	J-3392	911.63	Forest	1.68	1057.00	62.90
3442	J-1874	912.00	Forest	0.08	1057.42	62.92
3918	J-2126	913.38	Forest	1.68	1058.82	62.92
401	J-220	912.45	Forest	0.48	1057.91	62.94
3351	J-1823	836.00	Forest	1.28	981.47	62.94
4538	J-2379	836.00	Forest	0.68	981.47	62.94
1729	J-879	821.58	Lakes	0.89	967.13	62.97
3418	J-1860	919.21	Forest	0.48	1064.85	63.01
2820	J-1527	911.94	Forest	1.28	1057.68	63.05
1947	J-1020	913.30	Forest	0.88	1059.09	63.08
2217	J-1183	821.31	Lakes	0.46	967.17	63.11
3735	J-2038	916.66	Forest	1.08	1062.60	63.14
5977	J-3200	911.86	Forest	0.48	1057.79	63.14
6391	J-3446	913.31	Forest	0.08	1059.35	63.19
3387	J-1842	912.00	Forest	0.08	1058.06	63.19
2749	J-1486	912.85	Forest	1.08	1058.95	63.21
400	J-219	911.75	Forest	0.88	1057.91	63.24
2682	J-1445	847.19	Lakes	0.20	993.37	63.24
6671	J-3611	918.64	Forest	0.48	1064.85	63.26
3812	J-2075	910.68	Forest	2.69	1056.92	63.27
3674	J-2003	911.10	Forest	0.88	1057.41	63.31
6611	J-3575	915.97	Forest	0.28	1062.34	63.32
2575	J-1383	911.12	Forest	3.29	1057.54	63.35
5976	J-3199	911.38	Forest	0.88	1057.79	63.35
3864	J-2100	918.21	Forest	0.48	1064.74	63.40
6392	J-3447	912.62	Forest	1.28	1059.35	63.48
4702	J-2472	910.76	Forest	0.88	1057.51	63.49
7137	J-3880	912.43	Forest	0.08	1059.35	63.57
1303	J-675	910.88	Forest	1.48	1057.82	63.58
5898	J-3156	910.99	Forest	0.08	1057.96	63.58
3507	J-1912	910.51	Forest	0.48	1057.51	63.60
2270	J-1214	820.00	Lakes	1.06	967.07	63.63
93	J-43	917.28	Forest	0.48	1064.63	63.75
3053	J-1644	910.61	Forest	0.28	1058.06	63.79
3984	J-2156	910.00	Forest	1.88	1057.45	63.80
5295	J-2810	910.59	Forest	0.48	1058.06	63.80
2609	J-1403	910.04	Forest	1.68	1057.54	63.81
5897	J-3155	910.38	Forest	0.88	1057.96	63.85
954	J-526	910.45	Forest	0.28	1058.06	63.86

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6980	J-3792	909.22	Forest	1.08	1056.92	63.90
3601	J-1965	911.54	Forest	0.08	1059.26	63.91
7101	J-3860	910.23	Forest	0.48	1057.96	63.91
7100	J-3859	910.23	Forest	0.68	1057.96	63.91
5388	J-2866	916.86	Forest	0.08	1064.63	63.93
81	J-35	916.73	Forest	0.08	1064.62	63.99
2951	J-1595	825.47	Lakes	0.55	973.52	64.05
4061	J-2189	909.24	Forest	0.48	1057.42	64.11
518	J-293	909.72	Forest	0.48	1058.12	64.21
6322	J-3405	910.90	Forest	0.08	1059.35	64.23
3744	J-2043	916.34	Forest	0.08	1064.87	64.26
2793	J-1512	910.72	Forest	1.08	1059.35	64.31
4514	J-2366	908.70	Forest	0.88	1057.42	64.34
7106	J-3863	908.67	Forest	0.08	1057.42	64.36
4513	J-2365	908.64	Forest	0.08	1057.42	64.37
2293	J-1228	916.04	Forest	0.68	1064.84	64.38
6979	J-3791	908.07	Forest	0.48	1056.92	64.40
4868	J-2565	914.80	Forest	0.28	1063.75	64.44
5672	J-3028	914.77	Forest	0.88	1063.72	64.44
2711	J-1463	914.77	Forest	0.48	1063.75	64.46
2823	J-1529	908.78	Forest	1.08	1057.84	64.49
6321	J-3404	910.28	Forest	0.88	1059.35	64.50
5671	J-3027	914.52	Forest	0.88	1063.72	64.55
6047	J-3240	914.99	Forest	0.28	1064.21	64.56
2669	J-1437	824.29	Lakes	0.46	973.52	64.57
3348	J-1822	839.73	Lakes	0.55	988.98	64.58
5843	J-3126	908.55	Forest	0.28	1057.83	64.59
2867	J-1553	832.02	Forest	1.88	981.47	64.66
1639	J-822	824.00	Lakes	0.20	973.48	64.67
1638	J-821	824.00	Lakes	0.20	973.48	64.67
3508	J-1913	908.03	Forest	0.28	1057.51	64.67
602	J-345	908.33	Forest	0.08	1057.83	64.68
6048	J-3241	914.55	Forest	1.28	1064.21	64.75
1996	J-1052	1051.60	Fox_Run	0.88	1201.26	64.75
82	J-36	914.89	Forest	0.08	1064.62	64.78
2273	J-1216	817.64	Lakes	0.72	967.41	64.80
1728	J-878	817.36	Lakes	0.55	967.13	64.80
2248	J-1201	914.12	Forest	0.88	1063.95	64.83
517	J-292	908.29	Forest	0.08	1058.13	64.83
2455	J-1316	823.63	Lakes	0.20	973.48	64.84
3945	J-2139	907.02	Forest	0.68	1056.91	64.85
1928	J-1007	843.44	Lakes	0.37	993.35	64.86
5828	J-3117	908.00	Forest	0.08	1057.96	64.88
4941	J-2608	907.48	Forest	0.88	1057.44	64.88
3855	J-2096	907.46	Forest	0.88	1057.44	64.89
6203	J-3334	907.44	Forest	0.88	1057.44	64.90
3901	J-2118	831.30	Forest	1.88	981.47	64.97
335	J-177	914.36	Forest	0.08	1064.62	65.01
5452	J-2901	907.15	Forest	0.08	1057.41	65.01
5252	J-2786	908.48	Forest	0.28	1058.82	65.04
4775	J-2513	914.22	Forest	0.28	1064.62	65.07
5829	J-3118	907.52	Forest	0.28	1057.96	65.08
7526	J-4038	914.18	Forest	10.28	1064.62	65.09
5639	J-3008	908.24	Forest	0.08	1058.69	65.10
2732	J-1475	907.29	Forest	0.68	1057.76	65.10
1488	J-745	908.35	Forest	0.08	1058.82	65.10
3927	J-2131	906.94	Forest	1.28	1057.45	65.12
3062	J-1650	906.81	Forest	0.08	1057.41	65.16
6327	J-3408	906.83	Forest	0.68	1057.45	65.16
559	J-319	908.68	Forest	0.08	1059.33	65.18
3347	J-1821	838.31	Lakes	0.72	988.98	65.19
6982	J-3793	907.42	Forest	0.08	1058.13	65.20
2801	J-1516	844.05	Forest	0.88	994.76	65.21
6202	J-3333	906.71	Forest	0.68	1057.44	65.21
2255	J-1205	840.49	Lakes	1.24	991.25	65.22
7056	J-3835	907.03	Forest	1.28	1057.82	65.24
5641	J-3009	906.96	Forest	0.48	1057.76	65.24
3061	J-1649	906.59	Forest	0.08	1057.41	65.25
4656	J-2447	907.28	Forest	0.08	1058.12	65.26
3876	J-2106	906.50	Forest	0.68	1057.42	65.29
2642	J-1422	912.98	Forest	0.88	1063.91	65.30
6134	J-3293	913.94	Forest	0.88	1064.87	65.30
3065	J-1652	907.18	Forest	0.68	1058.12	65.30
5870	J-3141	907.75	Forest	0.48	1058.69	65.31
6559	J-3544	906.58	Forest	2.89	1057.54	65.31
3439	J-1872	906.49	Forest	1.08	1057.45	65.31
1941	J-1016	908.10	Forest	0.88	1059.09	65.33
3064	J-1651	907.02	Forest	0.08	1058.12	65.37
1932	J-1010	815.97	Lakes	0.55	967.07	65.37
1695	J-857	908.16	Forest	0.48	1059.26	65.38
6560	J-3545	906.41	Forest	0.28	1057.54	65.39
2556	J-1373	822.33	Lakes	0.20	973.48	65.40
2765	J-1495	906.65	Forest	1.28	1057.82	65.40
2289	J-1225	816.00	Lakes	0.89	967.17	65.40
5638	J-3007	907.48	Forest	0.48	1058.69	65.42
2797	J-1514	822.26	Lakes	0.89	973.51	65.44
6446	J-3478	913.56	Forest	0.48	1064.83	65.45
5869	J-3140	907.32	Forest	1.08	1058.69	65.49
3450	J-1878	906.27	Forest	0.48	1057.68	65.51
5380	J-2861	908.01	Forest	0.08	1059.49	65.54
3892	J-2114	910.53	Forest	0.88	1062.02	65.54
5379	J-2860	907.82	Forest	0.88	1059.49	65.62
2967	J-1600	843.07	Forest	1.48	994.76	65.63
3692	J-2014	906.11	Forest	1.48	1057.82	65.64
3932	J-2134	843.04	Forest	0.68	994.76	65.64
686	J-395	912.00	Forest	0.08	1063.72	65.64
4183	J-2242	905.69	Forest	2.29	1057.42	65.65
2440	J-1308	821.67	Lakes	0.37	973.48	65.68
601	J-344	906.01	Forest	0.68	1057.84	65.69

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
998	J-546	905.93	Forest	0.68	1057.83	65.72
6771	J-3669	910.09	Forest	1.08	1062.02	65.73
3658	J-1995	912.74	Forest	0.08	1064.83	65.80
1676	J-844	821.24	Lakes	0.20	973.48	65.87
1709	J-866	821.23	Lakes	0.20	973.48	65.87
2414	J-1292	821.18	Lakes	0.20	973.48	65.89
2415	J-1293	821.16	Lakes	0.20	973.48	65.90
8465	J-4184	808.28	Lakes	1.50	960.64	65.92
2263	J-1210	815.03	Lakes	0.63	967.41	65.93
1574	J-780	906.87	Forest	0.48	1059.32	65.95
2338	J-1253	838.81	Lakes	1.41	991.27	65.96
3466	J-1887	912.33	Forest	0.48	1064.81	65.97
2431	J-1303	838.73	Lakes	1.58	991.25	65.99
1573	J-779	906.69	Forest	0.08	1059.32	66.04
1770	J-906	836.31	Lakes	0.55	988.98	66.05
364	J-196	912.07	Forest	0.08	1064.76	66.06
2430	J-1302	838.55	Lakes	0.55	991.25	66.07
3890	J-2113	912.16	Forest	0.48	1064.87	66.07
363	J-195	912.03	Forest	0.08	1064.75	66.07
2106	J-1113	840.63	Lakes	0.72	993.35	66.07
8069	J-4165	904.70	Forest	2.89	1057.46	66.09
6135	J-3294	912.00	Forest	0.28	1064.87	66.14
76	J-32	906.11	Forest	0.08	1058.99	66.15
6186	J-3323	911.89	Forest	0.68	1064.81	66.16
3464	J-1886	904.49	Forest	0.48	1057.41	66.16
4214	J-2254	911.75	Forest	0.48	1064.88	66.25
2032	J-1074	904.62	Forest	0.68	1057.79	66.27
7092	J-3855	910.96	Forest	0.28	1064.13	66.27
7946	J-4148	904.74	Forest	0.48	1057.91	66.27
4843	J-2551	904.64	Forest	0.08	1057.82	66.27
4962	J-2620	841.55	Forest	0.48	994.76	66.29
3313	J-1802	841.54	Forest	0.08	994.76	66.29
3321	J-1806	911.39	Forest	0.48	1064.63	66.30
2024	J-1069	808.28	Lakes	0.37	961.56	66.32
6029	J-3229	904.45	Forest	0.28	1057.76	66.33
2004	J-1057	840.00	Lakes	0.46	993.38	66.36
6675	J-3613	905.60	Forest	0.48	1058.99	66.36
3691	J-2013	904.42	Forest	0.68	1057.82	66.37
5598	J-2984	904.00	Forest	0.68	1057.42	66.38
5599	J-2985	904.00	Forest	0.88	1057.42	66.38
5460	J-2906	904.23	Forest	1.48	1057.68	66.39
658	J-379	903.28	Forest	2.09	1056.73	66.39
2625	J-1413	828.00	Forest	1.08	981.47	66.40
3114	J-1683	904.00	Forest	0.08	1057.51	66.42
3115	J-1684	904.00	Forest	0.08	1057.51	66.42
75	J-31	905.47	Forest	0.28	1059.00	66.42
3929	J-2132	903.75	Forest	1.48	1057.42	66.48
3451	J-1879	904.00	Forest	0.48	1057.68	66.49
3267	J-1776	908.89	Forest	0.48	1062.60	66.50
6377	J-3438	904.00	Forest	0.28	1057.80	66.54
3467	J-1888	910.79	Forest	0.08	1064.81	66.64
4025	J-2174	903.80	Forest	0.88	1057.83	66.64
5681	J-3033	908.48	Forest	0.48	1062.60	66.68
502	J-282	903.63	Forest	0.08	1057.80	66.70
3438	J-1871	903.23	Forest	0.48	1057.45	66.72
5193	J-2751	903.59	Forest	0.88	1057.83	66.73
2652	J-1428	827.22	Forest	0.88	981.47	66.74
3782	J-2060	908.97	Forest	0.28	1063.25	66.75
2245	J-1199	836.93	Lakes	0.81	991.24	66.76
2983	J-1608	910.46	Forest	0.48	1064.80	66.78
7062	J-3838	908.89	Forest	0.08	1063.25	66.78
3322	J-1807	910.17	Forest	0.28	1064.63	66.83
196	J-93	907.78	Forest	1.08	1062.34	66.87
5721	J-3056	902.87	Forest	0.48	1057.45	66.88
4892	J-2580	903.68	Forest	0.48	1058.28	66.89
7765	J-4110	902.73	Forest	1.48	1057.42	66.92
584	J-334	903.07	Forest	0.08	1057.80	66.94
2799	J-1515	836.51	Lakes	1.24	991.26	66.95
4891	J-2579	903.43	Forest	0.08	1058.28	66.99
7232	J-3926	909.21	Forest	0.28	1064.12	67.02
7938	J-4146	902.54	Forest	1.08	1057.45	67.02
6848	J-3715	909.96	Forest	0.48	1064.88	67.03
2547	J-1367	805.64	Lakes	0.29	960.64	67.06
498	J-280	909.73	Forest	0.08	1064.75	67.07
4276	J-2273	902.69	Forest	1.68	1057.76	67.09
5847	J-3128	909.66	Forest	0.08	1064.75	67.10
1986	J-1045	818.29	Lakes	0.37	973.48	67.14
6986	J-3795	904.78	Forest	0.48	1060.04	67.17
2126	J-1126	904.43	Forest	0.48	1059.69	67.18
5323	J-2827	909.49	Forest	1.28	1064.87	67.22
7728	J-4101	902.11	Forest	0.28	1057.51	67.24
558	J-318	903.89	Forest	0.08	1059.32	67.25
1712	J-868	818.02	Lakes	0.46	973.48	67.26
2191	J-1167	903.95	Forest	1.88	1059.43	67.27
3911	J-2123	906.52	Forest	0.48	1062.02	67.28
7721	J-4098	903.16	Forest	0.88	1058.69	67.29
5856	J-3133	903.69	Forest	0.88	1059.23	67.29
3588	J-1957	901.89	Forest	0.08	1057.46	67.31
6666	J-3608	908.50	Forest	0.28	1064.12	67.33
2250	J-1202	837.78	Lakes	0.63	993.43	67.34
5322	J-2826	909.20	Forest	0.08	1064.87	67.35
503	J-283	902.07	Forest	1.08	1057.80	67.38
1978	J-1040	909.02	Forest	0.48	1064.83	67.41
1790	J-918	906.78	Forest	0.08	1062.60	67.42
2269	J-1213	811.21	Lakes	0.72	967.07	67.43
6665	J-3607	908.20	Forest	0.08	1064.12	67.46
5755	J-3076	906.05	Forest	0.88	1062.02	67.48
7882	J-4138	901.74	Forest	0.68	1057.79	67.52
7701	J-4092	902.62	Forest	0.88	1058.69	67.53

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
642	J-369	907.96	Forest	0.08	1064.13	67.57
3522	J-1920	902.95	Forest	0.48	1059.23	67.62
2914	J-1577	837.08	Lakes	0.89	993.37	67.62
1908	J-994	817.11	Lakes	0.20	973.48	67.65
2854	J-1547	901.41	Forest	1.08	1057.80	67.66
6034	J-3232	908.41	Forest	0.28	1064.80	67.66
3535	J-1927	908.40	Forest	0.28	1064.80	67.67
569	J-325	907.78	Forest	0.68	1064.21	67.68
1677	J-845	817.04	Lakes	0.20	973.48	67.68
6050	J-3242	901.23	Forest	0.68	1057.80	67.74
751	J-430	903.44	Forest	0.08	1060.04	67.75
1912	J-997	908.26	Forest	1.68	1064.88	67.76
7082	J-3850	908.06	Forest	0.08	1064.76	67.80
4200	J-2249	902.55	Forest	0.88	1059.26	67.80
919	J-510	908.05	Forest	0.08	1064.76	67.80
2733	J-1476	901.00	Forest	1.88	1057.76	67.82
1909	J-995	816.68	Lakes	0.55	973.48	67.84
5180	J-2744	902.20	Forest	0.48	1059.04	67.86
2343	J-1256	902.18	Forest	0.68	1059.04	67.87
2503	J-1343	907.75	Forest	0.28	1064.63	67.87
3456	J-1882	907.98	Forest	0.08	1064.87	67.88
1711	J-867	816.55	Lakes	0.81	973.48	67.90
2301	J-1233	834.22	Lakes	0.72	991.18	67.91
2762	J-1493	803.66	Lakes	0.37	960.64	67.92
2990	J-1612	907.75	Forest	0.88	1064.83	67.96
129	J-63	907.81	Forest	0.48	1064.90	67.97
575	J-329	900.47	Forest	0.08	1057.84	68.08
4947	J-2611	900.30	Forest	1.28	1057.68	68.09
2811	J-1522	900.04	Forest	1.28	1057.45	68.10
5333	J-2833	900.42	Forest	0.08	1057.84	68.11
7941	J-4147	900.00	Forest	1.48	1057.42	68.11
3587	J-1956	900.00	Forest	1.28	1057.46	68.13
2653	J-1429	824.00	Forest	0.88	981.47	68.13
2817	J-1525	906.21	Forest	0.88	1063.71	68.14
6375	J-3437	899.92	Forest	0.28	1057.42	68.15
2125	J-1125	902.13	Forest	0.08	1059.69	68.17
7724	J-4099	901.12	Forest	1.28	1058.69	68.17
877	J-493	901.62	Forest	0.08	1059.23	68.19
7437	J-4006	906.45	Forest	2.29	1064.12	68.21
5032	J-2661	907.15	Forest	0.68	1064.85	68.23
4432	J-2322	910.95	Lakes	1.15	1068.85	68.32
7861	J-4133	901.36	Forest	1.08	1059.27	68.32
4948	J-2612	899.76	Forest	1.28	1057.68	68.32
576	J-330	899.87	Forest	0.88	1057.84	68.34
2298	J-1231	833.28	Lakes	0.89	991.26	68.35
6360	J-3428	905.73	Forest	1.28	1063.71	68.35
8488	J-4196	901.27	Forest	1.08	1059.26	68.35
2544	J-1365	802.55	Lakes	0.29	960.64	68.40
5033	J-2662	906.44	Forest	1.08	1064.85	68.54
2502	J-1342	906.08	Forest	0.08	1064.63	68.60
1893	J-985	830.42	Lakes	0.63	988.98	68.60
86	J-38	900.88	Forest	1.28	1059.44	68.60
3919	J-2127	900.24	Forest	1.88	1058.82	68.61
1956	J-1026	834.75	Lakes	0.37	993.34	68.61
2957	J-1597	814.88	Lakes	2.80	973.48	68.62
288	J-148	899.15	Forest	0.68	1057.80	68.64
2848	J-1543	905.19	Forest	0.68	1063.87	68.65
1489	J-746	900.09	Forest	50.32	1058.80	68.67
3875	J-2105	898.71	Forest	0.88	1057.42	68.67
2853	J-1546	899.02	Forest	1.08	1057.80	68.70
4806	J-2530	899.89	Forest	0.88	1058.67	68.70
2129	J-1128	832.34	Lakes	0.55	991.18	68.72
2192	J-1168	900.46	Forest	0.88	1059.43	68.78
3380	J-1839	900.24	Forest	0.28	1059.26	68.80
2128	J-1127	832.16	Lakes	0.72	991.19	68.81
3303	J-1797	903.54	Forest	0.48	1062.60	68.82
4800	J-2527	899.75	Forest	0.08	1058.82	68.82
959	J-528	899.57	Forest	0.08	1058.67	68.84
287	J-147	898.67	Forest	0.08	1057.80	68.85
5428	J-2888	899.59	Forest	0.08	1058.80	68.88
5838	J-3123	902.80	Forest	0.08	1062.02	68.89
4010	J-2168	899.03	Forest	1.68	1058.27	68.90
2981	J-1607	834.05	Lakes	0.63	993.38	68.94
8487	J-4195	899.91	Forest	1.68	1059.26	68.94
5654	J-3017	900.06	Forest	0.48	1059.43	68.95
104	J-50	902.63	Forest	0.48	1062.02	68.96
2999	J-1616	831.85	Lakes	3.32	991.25	68.96
5385	J-2864	899.80	Forest	0.88	1059.28	69.00
2333	J-1251	833.87	Lakes	0.89	993.41	69.03
844	J-476	904.67	Forest	0.48	1064.25	69.04
1931	J-1009	807.47	Lakes	0.37	967.07	69.05
7188	J-3904	905.00	Forest	0.08	1064.62	69.06
5655	J-3018	899.72	Forest	0.48	1059.43	69.10
2712	J-1464	904.00	Forest	0.68	1063.75	69.12
5390	J-2867	898.05	Forest	0.28	1057.80	69.12
6374	J-3436	897.65	Forest	0.68	1057.42	69.13
330	J-174	897.94	Forest	0.68	1057.80	69.17
4568	J-2397	904.36	Forest	0.28	1064.25	69.18
3574	J-1949	897.15	Forest	0.88	1057.10	69.20
3647	J-1989	904.83	Forest	0.88	1064.83	69.22
2548	J-1368	800.64	Lakes	0.29	960.64	69.22
5386	J-2865	899.27	Forest	0.88	1059.28	69.23
87	J-39	899.07	Forest	1.48	1059.42	69.38
3804	J-2071	896.63	Forest	1.08	1057.02	69.39
2290	J-1226	806.73	Lakes	0.55	967.17	69.41
2802	J-1517	834.29	Forest	1.88	994.76	69.43
1955	J-1025	832.85	Lakes	0.37	993.34	69.44
1987	J-1046	812.88	Lakes	0.55	973.47	69.48
7774	J-4113	834.14	Forest	0.28	994.76	69.49

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1694	J-856	898.64	Forest	0.08	1059.26	69.49
2468	J-1324	800.00	Lakes	0.29	960.64	69.50
2469	J-1325	800.00	Lakes	0.20	960.64	69.50
2505	J-1344	800.00	Lakes	0.20	960.64	69.50
5573	J-2970	896.42	Forest	0.88	1057.10	69.52
5466	J-2910	903.91	Forest	0.68	1064.62	69.53
5540	J-2951	896.59	Forest	1.28	1057.44	69.59
2887	J-1564	903.69	Forest	0.88	1064.63	69.63
7219	J-3920	898.33	Forest	0.08	1059.38	69.68
5465	J-2909	903.56	Forest	0.68	1064.62	69.69
6253	J-3365	899.62	Forest	0.48	1060.77	69.72
2143	J-1137	898.52	Forest	0.68	1059.69	69.73
6306	J-3396	898.84	Forest	0.08	1060.04	69.74
6506	J-3512	896.25	Forest	0.88	1057.46	69.75
2227	J-1189	805.85	Lakes	0.20	967.07	69.75
3878	J-2107	896.21	Forest	1.08	1057.44	69.76
6305	J-3395	898.74	Forest	0.28	1060.04	69.79
5421	J-2884	903.32	Forest	0.08	1064.63	69.79
2131	J-1129	898.03	Forest	0.68	1059.35	69.80
7218	J-3919	898.05	Forest	0.48	1059.38	69.80
643	J-370	902.72	Forest	0.28	1064.13	69.84
6507	J-3513	896.03	Forest	0.28	1057.46	69.85
570	J-326	902.75	Forest	0.68	1064.20	69.85
72	J-29	900.56	Forest	0.08	1062.02	69.86
3856	J-2097	895.86	Forest	1.28	1057.43	69.90
1296	J-673	899.20	Forest	0.68	1060.77	69.90
2374	J-1274	903.01	Forest	0.28	1064.63	69.92
7511	J-4032	896.15	Forest	0.48	1057.80	69.94
4798	J-2526	896.96	Forest	0.28	1058.69	69.97
5402	J-2874	896.20	Forest	0.48	1057.93	69.98
2213	J-1180	831.62	Lakes	0.72	993.42	70.00
5401	J-2873	896.04	Forest	0.68	1057.93	70.04
143	J-70	899.97	Forest	0.48	1061.86	70.04
636	J-365	896.56	Forest	0.08	1058.69	70.15
3649	J-1990	832.49	Forest	0.28	994.76	70.21
4804	J-2529	901.80	Forest	0.08	1064.20	70.26
7006	J-3807	897.38	Forest	1.08	1059.82	70.28
7510	J-4031	895.33	Forest	0.08	1057.80	70.29
7007	J-3808	897.26	Forest	0.88	1059.82	70.33
7975	J-4153	894.88	Forest	1.68	1057.45	70.34
2187	J-1165	856.69	Lakes	0.72	1019.31	70.36
746	J-427	897.31	Forest	0.08	1060.04	70.40
6903	J-3748	899.86	Forest	0.08	1062.60	70.41
6974	J-3788	901.99	Forest	0.08	1064.76	70.42
7111	J-3866	896.52	Forest	0.08	1059.35	70.45
4459	J-2334	896.44	Forest	0.28	1059.36	70.48
4458	J-2333	896.43	Forest	0.08	1059.36	70.49
4193	J-2247	894.41	Forest	1.88	1057.42	70.53
7456	J-4012	896.33	Forest	0.28	1059.36	70.53
3407	J-1853	901.82	Forest	0.08	1064.87	70.54
8536	J-4218	911.94	Forest	0.08	1075.00	70.55
808	J-458	895.06	Forest	0.08	1058.17	70.57
7141	J-3882	896.25	Forest	0.28	1059.36	70.57
6941	J-3770	900.88	Forest	0.08	1064.01	70.58
1879	J-976	896.14	Forest	0.48	1059.28	70.58
265	J-133	901.42	Forest	0.08	1064.76	70.67
3573	J-1948	893.68	Forest	0.48	1057.09	70.70
5891	J-3152	897.50	Forest	0.08	1060.96	70.72
264	J-132	901.30	Forest	0.08	1064.76	70.72
6292	J-3387	895.94	Forest	1.68	1059.43	70.73
2189	J-1166	895.75	Forest	0.08	1059.26	70.74
7038	J-3825	901.12	Forest	0.08	1064.63	70.74
1139	J-602	900.49	Forest	0.08	1064.01	70.75
4261	J-2268	900.35	Forest	0.08	1063.91	70.77
3436	J-1870	817.90	Forest	1.88	981.47	70.77
7505	J-4029	894.50	Forest	4.32	1058.17	70.81
4227	J-2258	899.88	Forest	0.08	1063.58	70.83
8467	J-4185	796.75	Lakes	0.20	960.64	70.91
7288	J-3951	895.74	Forest	1.08	1059.82	70.99
6293	J-3388	895.35	Forest	1.28	1059.43	70.99
7289	J-3952	895.71	Forest	0.48	1059.82	71.00
4950	J-2613	900.15	Forest	1.08	1064.34	71.03
3935	J-2135	899.33	Forest	0.08	1063.58	71.06
1523	J-759	896.50	Forest	0.08	1060.96	71.16
3039	J-1635	817.00	Forest	0.28	981.47	71.16
3784	J-2061	900.39	Forest	0.68	1064.87	71.16
1035	J-562	899.83	Forest	0.08	1064.34	71.17
3038	J-1634	816.93	Forest	0.08	981.47	71.19
3301	J-1796	898.02	Forest	0.48	1062.60	71.21
7911	J-4144	893.09	Forest	0.88	1057.68	71.21
2545	J-1366	796.00	Lakes	0.20	960.64	71.23
3683	J-2008	897.29	Forest	0.68	1062.02	71.27
6680	J-3616	894.87	Forest	0.08	1059.72	71.32
73	J-30	897.18	Forest	0.28	1062.02	71.32
637	J-366	893.67	Forest	0.28	1058.69	71.40
2161	J-1148	891.86	Forest	1.28	1056.94	71.42
3884	J-2110	893.19	Forest	1.08	1058.36	71.46
373	J-202	1053.81	Lakes	0.20	1219.00	71.47
2570	J-1380	816.24	Forest	0.08	981.47	71.49
1791	J-919	897.35	Forest	0.88	1062.60	71.50
2202	J-1174	828.07	Lakes	0.37	993.37	71.52
693	J-399	1053.69	Lakes	0.20	1219.00	71.52
1992	J-1049	828.00	Lakes	0.46	993.32	71.53
2117	J-1120	828.00	Lakes	0.55	993.32	71.53
372	J-201	1053.63	Lakes	0.20	1219.00	71.55
6984	J-3794	816.09	Forest	0.68	981.47	71.55
5372	J-2856	893.39	Forest	0.88	1058.79	71.56
5065	J-2681	816.08	Forest	2.09	981.48	71.56
3552	J-1936	816.07	Forest	0.28	981.48	71.56

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1976	J-1039	801.63	Lakes	0.46	967.07	71.58
406	J-223	899.27	Forest	0.08	1064.75	71.59
2020	J-1067	857.41	Lakes	0.72	1022.90	71.60
4494	J-2354	815.94	Forest	0.08	981.47	71.62
1355	J-688	894.19	Forest	0.08	1059.72	71.62
407	J-224	899.06	Forest	0.08	1064.75	71.68
5371	J-2855	893.08	Forest	0.48	1058.79	71.69
4808	J-2531	899.03	Forest	0.08	1064.75	71.70
5470	J-2912	891.68	Forest	0.88	1057.42	71.71
5949	J-3185	1053.25	Lakes	0.20	1219.00	71.71
1165	J-612	892.00	Forest	0.08	1057.80	71.73
6137	J-3295	892.00	Forest	0.88	1057.80	71.73
5120	J-2710	892.06	Forest	0.08	1057.88	71.74
5988	J-3206	892.00	Forest	0.08	1057.90	71.78
5989	J-3207	892.00	Forest	0.88	1057.90	71.78
1876	J-974	896.60	Forest	0.48	1062.60	71.82
2132	J-1130	893.30	Forest	0.88	1059.35	71.84
2313	J-1240	892.98	Forest	1.28	1059.04	71.85
3631	J-1980	890.98	Forest	1.28	1057.07	71.86
1423	J-711	892.62	Forest	0.08	1058.71	71.86
7612	J-4066	892.68	Forest	0.68	1058.77	71.86
3408	J-1854	898.62	Forest	0.28	1064.87	71.93
3292	J-1791	892.51	Forest	0.88	1058.78	71.93
6908	J-3751	893.75	Forest	0.88	1060.03	71.94
103	J-49	895.74	Forest	1.28	1062.02	71.94
3293	J-1792	892.43	Forest	0.08	1058.78	71.97
3924	J-2129	891.06	Forest	0.88	1057.42	71.97
7213	J-3916	891.00	Forest	0.28	1057.41	72.00
5404	J-2875	892.28	Forest	0.28	1058.71	72.01
1868	J-969	898.08	Forest	1.28	1064.61	72.05
5121	J-2711	891.34	Forest	0.28	1057.88	72.05
1208	J-633	893.48	Forest	0.28	1060.03	72.06
194	J-92	896.00	Forest	0.08	1062.60	72.08
1673	J-842	826.77	Lakes	0.46	993.42	72.10
3287	J-1788	895.93	Forest	0.08	1062.60	72.11
2325	J-1247	824.50	Lakes	0.55	991.22	72.13
2890	J-1566	892.23	Forest	0.88	1058.95	72.13
3980	J-2154	890.68	Forest	0.48	1057.41	72.14
6893	J-3742	891.20	Forest	0.08	1057.96	72.15
6956	J-3778	898.10	Forest	0.68	1064.87	72.15
4349	J-2295	890.74	Forest	1.08	1057.76	72.26
2097	J-1107	824.22	Lakes	0.72	991.24	72.26
2851	J-1545	896.81	Forest	0.68	1063.87	72.28
1975	J-1038	800.00	Lakes	0.20	967.07	72.28
2151	J-1142	814.29	Forest	0.28	981.47	72.33
4818	J-2536	891.46	Forest	0.08	1058.66	72.34
5581	J-2974	895.36	Forest	1.28	1062.60	72.36
3319	J-1805	895.28	Forest	0.08	1062.60	72.39
6481	J-3498	890.37	Forest	1.08	1057.76	72.42
747	J-428	892.64	Forest	0.28	1060.04	72.42
8504	J-4205	897.51	Forest	0.28	1064.90	72.42
6892	J-3741	890.53	Forest	2.09	1057.96	72.44
1185	J-620	907.56	Forest	0.08	1075.00	72.44
3517	J-1918	890.34	Forest	0.88	1057.82	72.46
2278	J-1219	825.91	Lakes	0.72	993.42	72.48
478	J-268	891.11	Forest	0.08	1058.66	72.49
2694	J-1452	823.48	Lakes	0.37	991.16	72.54
5767	J-3083	891.73	Forest	0.28	1059.42	72.55
203	J-94	892.00	Forest	1.28	1059.76	72.58
3083	J-1663	897.10	Forest	1.08	1064.87	72.58
1929	J-1008	825.55	Lakes	0.29	993.34	72.60
3952	J-2142	891.49	Forest	1.08	1059.42	72.65
2027	J-1071	823.18	Lakes	0.55	991.15	72.67
2764	J-1494	889.85	Forest	0.68	1057.82	72.68
7622	J-4070	889.82	Forest	0.28	1057.80	72.68
7463	J-4015	889.76	Forest	0.88	1057.79	72.70
5430	J-2889	889.78	Forest	0.48	1057.82	72.70
2005	J-1058	825.25	Lakes	0.72	993.37	72.74
8534	J-4217	906.87	Forest	0.08	1075.00	72.74
3084	J-1664	896.70	Forest	0.08	1064.87	72.76
3024	J-1626	889.38	Forest	3.69	1057.73	72.84
6460	J-3486	889.31	Forest	0.68	1057.67	72.84
3235	J-1756	889.22	Forest	2.09	1057.67	72.88
6095	J-3270	892.50	Forest	0.08	1060.99	72.90
4263	J-2269	890.92	Forest	0.28	1059.42	72.90
7671	J-4084	890.86	Forest	2.49	1059.43	72.93
1066	J-576	896.00	Forest	0.08	1064.62	72.95
7241	J-3930	896.00	Forest	0.88	1064.62	72.95
2220	J-1185	824.79	Lakes	0.89	993.42	72.96
1925	J-1005	894.61	Forest	0.68	1063.25	72.96
3697	J-2017	891.55	Forest	0.08	1060.20	72.97
6210	J-3338	892.23	Forest	0.28	1060.94	72.99
2868	J-1554	812.71	Forest	1.28	981.48	73.02
319	J-167	889.88	Forest	0.08	1058.66	73.02
6215	J-3341	889.01	Forest	1.68	1057.80	73.03
753	J-431	889.34	Forest	0.08	1058.21	73.06
5700	J-3044	889.13	Forest	0.48	1058.02	73.07
126	J-61	894.24	Forest	0.48	1063.15	73.08
3551	J-1935	812.56	Forest	0.88	981.48	73.08
5082	J-2690	889.22	Forest	0.48	1058.21	73.11
1422	J-710	889.68	Forest	0.08	1058.71	73.13
1522	J-758	891.87	Forest	0.28	1060.94	73.15
318	J-166	889.49	Forest	0.28	1058.66	73.19
3234	J-1755	888.49	Forest	0.08	1057.67	73.19
1801	J-925	812.19	Forest	0.48	981.47	73.24
6288	J-3385	893.85	Forest	0.08	1063.15	73.24
4640	J-2439	812.09	Forest	0.48	981.48	73.29
3733	J-2037	812.06	Forest	1.08	981.47	73.29
1505	J-750	891.56	Forest	0.08	1060.99	73.31

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7852	J-4131	888.00	Forest	0.68	1057.46	73.32
5108	J-2704	889.81	Forest	0.48	1059.27	73.32
6950	J-3775	888.34	Forest	0.08	1057.82	73.32
6216	J-3342	888.29	Forest	0.08	1057.80	73.34
8483	J-4193	889.17	Forest	0.48	1058.69	73.34
5699	J-3043	888.42	Forest	0.08	1058.02	73.37
3510	J-1914	811.88	Forest	0.48	981.48	73.37
7986	J-4156	889.39	Forest	2.09	1059.00	73.38
5472	J-2913	892.34	Forest	0.08	1062.02	73.41
1734	J-882	821.35	Lakes	0.46	991.15	73.47
3458	J-1883	892.14	Forest	0.08	1062.02	73.50
3926	J-2130	887.55	Forest	0.88	1057.45	73.51
3511	J-1915	811.57	Forest	0.48	981.48	73.51
3561	J-1942	894.86	Forest	0.48	1064.87	73.55
5532	J-2947	894.40	Forest	0.08	1064.62	73.64
2012	J-1062	823.11	Lakes	0.89	993.34	73.65
1938	J-1014	823.03	Lakes	0.72	993.32	73.67
4196	J-2248	887.40	Forest	0.28	1057.82	73.73
895	J-502	894.18	Forest	0.08	1064.62	73.74
1159	J-610	888.00	Forest	0.48	1058.67	73.84
5745	J-3070	887.12	Forest	0.08	1057.80	73.84
3424	J-1863	894.14	Forest	0.28	1064.87	73.87
490	J-275	887.51	Forest	0.08	1058.25	73.87
7397	J-3992	887.93	Forest	9.60	1058.71	73.89
3539	J-1929	887.93	Forest	0.08	1058.71	73.89
1495	J-748	888.00	Forest	0.08	1058.78	73.89
6148	J-3301	894.04	Forest	0.48	1064.83	73.89
1914	J-998	888.46	Forest	1.28	1059.27	73.90
2375	J-1275	893.74	Forest	0.48	1064.63	73.94
5746	J-3071	886.85	Forest	0.08	1057.80	73.96
8527	J-4215	851.94	Lakes	0.72	1022.90	73.97
250	J-123	886.84	Forest	0.48	1057.84	73.98
3699	J-2018	893.82	Forest	0.08	1064.83	73.99
1735	J-883	820.14	Lakes	0.29	991.15	73.99
475	J-266	892.56	Forest	0.68	1063.58	73.99
1999	J-1054	822.34	Lakes	0.55	993.37	73.99
489	J-274	887.22	Forest	0.48	1058.25	74.00
2214	J-1181	822.35	Lakes	0.72	993.42	74.01
6782	J-3676	887.54	Forest	0.08	1058.67	74.04
249	J-122	886.68	Forest	0.08	1057.84	74.05
1470	J-737	887.57	Forest	0.28	1058.73	74.06
3896	J-2116	893.44	Forest	0.88	1064.62	74.06
1896	J-987	885.68	Forest	2.09	1056.88	74.07
398	J-218	888.85	Forest	0.48	1060.09	74.09
1802	J-926	810.12	Forest	0.28	981.47	74.14
3630	J-1979	885.66	Forest	0.88	1057.06	74.16
1206	J-632	888.31	Forest	0.88	1059.72	74.16
5189	J-2749	887.32	Forest	0.08	1058.73	74.16
6160	J-3308	886.26	Forest	1.28	1057.68	74.17
6802	J-3688	885.91	Forest	1.88	1057.42	74.21
1674	J-843	821.89	Lakes	0.20	993.42	74.21
397	J-217	888.54	Forest	0.28	1060.09	74.22
6939	J-3769	886.77	Forest	0.88	1058.36	74.24
5299	J-2812	887.16	Forest	0.08	1058.77	74.25
3476	J-1894	886.20	Forest	0.48	1057.82	74.25
1163	J-611	886.18	Forest	0.48	1057.84	74.27
6161	J-3309	886.03	Forest	0.88	1057.68	74.27
5208	J-2759	892.93	Forest	0.88	1064.62	74.28
4980	J-2630	887.00	Forest	0.08	1058.71	74.29
3111	J-1681	887.00	Forest	0.08	1058.71	74.29
5210	J-2760	886.13	Forest	0.28	1057.84	74.29
5051	J-2673	886.12	Forest	0.28	1057.84	74.30
3252	J-1767	887.01	Forest	0.68	1058.77	74.31
1228	J-642	887.92	Forest	0.08	1059.71	74.33
4439	J-2324	886.03	Forest	0.88	1057.83	74.33
3023	J-1625	886.00	Forest	3.89	1057.80	74.33
6192	J-3327	885.99	Forest	0.48	1057.79	74.33
3112	J-1682	886.89	Forest	0.08	1058.71	74.34
6191	J-3326	885.96	Forest	0.08	1057.79	74.34
2160	J-1147	885.11	Forest	0.88	1056.94	74.34
5300	J-2813	886.93	Forest	1.28	1058.77	74.35
476	J-267	891.71	Forest	0.88	1063.58	74.36
6531	J-3527	887.53	Forest	0.48	1059.43	74.38
894	J-501	892.66	Forest	0.48	1064.62	74.40
4573	J-2400	885.86	Forest	1.08	1057.83	74.40
5335	J-2834	891.58	Forest	0.08	1063.58	74.42
6864	J-3724	887.69	Forest	0.28	1059.72	74.43
6504	J-3511	885.74	Forest	0.68	1057.82	74.45
5232	J-2774	887.61	Forest	0.08	1059.71	74.46
393	J-215	886.58	Forest	0.48	1058.70	74.47
3073	J-1657	892.47	Forest	1.28	1064.62	74.48
3251	J-1766	886.59	Forest	0.68	1058.77	74.49
7329	J-3966	885.64	Forest	0.88	1057.83	74.50
5714	J-3052	884.85	Forest	0.08	1057.06	74.51
5060	J-2678	886.49	Forest	0.08	1058.71	74.51
6078	J-3260	891.83	Forest	0.08	1064.12	74.54
667	J-385	891.81	Forest	0.48	1064.12	74.55
3076	J-1659	892.28	Forest	0.08	1064.62	74.56
3074	J-1658	892.22	Forest	1.08	1064.62	74.59
542	J-308	892.19	Forest	0.48	1064.63	74.61
2175	J-1157	889.54	Forest	0.48	1062.02	74.62
5354	J-2845	886.18	Forest	0.28	1058.70	74.64
1895	J-986	884.36	Forest	0.08	1056.91	74.66
7784	J-4116	887.32	Forest	0.28	1059.94	74.68
3885	J-2111	885.71	Forest	0.48	1058.36	74.70
1979	J-1041	892.15	Forest	0.68	1064.82	74.71
3108	J-1679	886.03	Forest	0.08	1058.71	74.71
392	J-214	885.98	Forest	0.08	1058.70	74.73
2234	J-1193	885.06	Forest	0.48	1057.82	74.74

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3109	J-1680	885.93	Forest	0.08	1058.71	74.76
3830	J-2133	884.57	Forest	1.28	1057.41	74.78
6044	J-3238	891.72	Forest	0.68	1064.63	74.81
6442	J-3476	884.43	Forest	0.68	1057.42	74.85
6530	J-3526	886.39	Forest	0.48	1059.43	74.87
4267	J-2270	884.34	Forest	1.08	1057.42	74.88
4027	J-2175	884.52	Forest	1.08	1057.68	74.92
3596	J-1962	884.47	Forest	1.28	1057.83	75.00
2219	J-1184	820.03	Lakes	0.72	993.41	75.01
6767	J-3667	884.31	Forest	0.48	1057.76	75.04
6045	J-3239	891.10	Forest	0.28	1064.63	75.08
5496	J-2926	891.31	Forest	0.28	1064.84	75.08
2940	J-1589	849.34	Lakes	0.81	1022.90	75.09
3898	J-2117	884.00	Forest	1.08	1057.83	75.21
432	J-240	884.82	Forest	0.48	1058.70	75.23
127	J-62	889.19	Forest	1.28	1063.08	75.23
6814	J-3695	886.93	Forest	0.28	1060.91	75.27
2292	J-1227	890.85	Forest	0.28	1064.84	75.28
3475	J-1893	883.66	Forest	0.28	1057.82	75.35
7235	J-3928	883.90	Forest	0.08	1058.14	75.39
7094	J-3856	885.72	Forest	0.88	1060.04	75.42
4188	J-2245	882.61	Forest	1.48	1056.99	75.45
4747	J-2498	890.19	Forest	1.08	1064.62	75.47
6553	J-3540	883.24	Forest	1.68	1057.68	75.47
4120	J-2216	882.95	Forest	0.88	1057.42	75.49
4019	J-2171	890.09	Forest	0.88	1064.62	75.51
7343	J-3972	885.23	Forest	0.08	1059.82	75.53
1526	J-760	886.24	Forest	0.08	1060.91	75.57
3850	J-2094	884.00	Forest	0.08	1058.69	75.58
5099	J-2699	884.00	Forest	0.48	1058.74	75.60
5734	J-3064	883.94	Forest	0.28	1058.69	75.61
4168	J-2237	820.00	Forest	1.48	994.76	75.61
6554	J-3541	882.92	Forest	0.28	1057.68	75.61
7342	J-3971	885.01	Forest	0.08	1059.82	75.63
1492	J-747	883.84	Forest	0.88	1058.74	75.67
7234	J-3927	883.15	Forest	0.28	1058.14	75.71
4268	J-2271	882.42	Forest	1.68	1057.42	75.71
3359	J-1828	882.74	Forest	0.48	1057.76	75.72
279	J-142	883.49	Forest	0.28	1058.61	75.76
2665	J-1435	885.66	Forest	1.08	1060.81	75.78
907	J-507	883.47	Forest	0.08	1058.70	75.81
3360	J-1829	882.50	Forest	0.68	1057.76	75.83
278	J-141	883.34	Forest	0.68	1058.61	75.83
4670	J-2455	883.38	Forest	0.08	1058.77	75.88
7448	J-4008	882.26	Forest	1.68	1057.68	75.90
4836	J-2547	883.21	Forest	0.08	1058.70	75.93
884	J-497	883.13	Forest	0.88	1058.64	75.94
3152	J-1706	888.68	Forest	0.28	1064.28	75.97
2818	J-1526	888.12	Forest	0.68	1063.71	75.97
1425	J-712	883.14	Forest	0.88	1058.77	75.99
6026	J-3227	884.19	Forest	0.28	1059.82	75.99
2987	J-1610	882.10	Forest	1.08	1057.80	76.01
5780	J-3090	888.87	Forest	0.08	1064.60	76.03
5781	J-3091	888.79	Forest	0.08	1064.60	76.07
5338	J-2836	883.13	Forest	0.48	1059.00	76.09
7497	J-4027	881.93	Forest	0.88	1057.79	76.09
3943	J-2138	888.71	Forest	1.28	1064.63	76.11
453	J-253	888.32	Forest	0.28	1064.28	76.13
1873	J-972	846.90	Lakes	1.34	1022.87	76.13
1441	J-722	882.74	Forest	0.08	1058.72	76.14
6027	J-3228	883.84	Forest	0.48	1059.82	76.14
302	J-156	883.74	Forest	0.28	1059.74	76.15
6989	J-3797	882.09	Forest	0.68	1058.16	76.18
7029	J-3820	885.28	Forest	0.48	1061.36	76.18
6240	J-3357	881.59	Forest	0.48	1057.68	76.19
1026	J-558	882.61	Forest	0.08	1058.76	76.21
5080	J-2689	882.54	Forest	0.08	1058.72	76.23
2311	J-1239	881.63	Forest	1.48	1057.81	76.23
4623	J-2429	882.56	Forest	0.08	1058.78	76.24
3981	J-2155	881.14	Forest	1.08	1057.41	76.26
4915	J-2592	882.37	Forest	0.88	1058.65	76.27
4916	J-2593	882.36	Forest	0.28	1058.65	76.27
3401	J-1850	888.51	Forest	0.48	1064.84	76.29
1408	J-702	882.43	Forest	0.68	1058.76	76.29
5337	J-2835	882.63	Forest	0.88	1059.00	76.30
608	J-348	882.85	Forest	0.08	1059.29	76.34
3772	J-2056	880.58	Forest	2.29	1057.02	76.34
6239	J-3356	881.18	Forest	0.48	1057.68	76.37
2738	J-1479	882.12	Forest	3.09	1058.64	76.37
5997	J-3211	882.05	Forest	0.68	1058.59	76.38
1984	J-1044	888.00	Forest	0.08	1064.62	76.41
3399	J-1849	888.00	Forest	0.48	1064.62	76.41
4960	J-2619	888.00	Forest	0.48	1064.62	76.41
543	J-309	888.00	Forest	0.08	1064.63	76.42
3537	J-1928	882.13	Forest	0.28	1058.78	76.43
1046	J-568	881.73	Forest	1.08	1058.39	76.43
5463	J-2908	887.95	Forest	1.68	1064.62	76.44
343	J-182	883.32	Forest	0.08	1060.04	76.46
6355	J-3425	884.86	Forest	0.28	1061.62	76.47
6427	J-3467	888.10	Forest	0.08	1064.87	76.48
344	J-183	883.23	Forest	0.08	1060.04	76.50
7143	J-3883	887.80	Forest	0.48	1064.60	76.50
7144	J-3884	887.79	Forest	0.08	1064.60	76.50
6988	J-3796	881.34	Forest	2.09	1058.16	76.50
4230	J-2259	884.76	Forest	1.68	1061.62	76.52
5462	J-2907	887.69	Forest	0.88	1064.62	76.55
4999	J-2642	886.74	Forest	0.48	1063.72	76.57
95	J-44	884.30	Forest	1.08	1061.36	76.61
4998	J-2641	886.61	Forest	0.48	1063.72	76.63

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6780	J-3675	880.20	Forest	1.88	1057.41	76.67
6356	J-3426	884.35	Forest	0.68	1061.62	76.69
5617	J-2995	884.59	Forest	0.88	1061.88	76.71
301	J-155	882.42	Forest	0.08	1059.74	76.72
6637	J-3591	883.69	Forest	0.08	1061.01	76.72
2490	J-1336	881.41	Forest	3.88	1058.76	76.73
1547	J-788	1041.60	Lakes	0.20	1218.96	76.74
1915	J-999	881.88	Forest	0.68	1059.26	76.75
6426	J-3466	887.39	Forest	0.08	1064.87	76.79
6153	J-3304	879.93	Forest	0.68	1057.42	76.79
6589	J-3562	880.84	Forest	0.08	1058.39	76.82
5072	J-2685	886.70	Forest	0.08	1064.28	76.83
1867	J-968	887.00	Forest	0.88	1064.62	76.85
4953	J-2615	879.18	Forest	0.08	1056.80	76.85
6779	J-3674	879.75	Forest	0.08	1057.41	76.86
452	J-252	886.58	Forest	0.48	1064.28	76.88
4392	J-2310	885.88	Forest	1.48	1063.72	76.94
4579	J-2404	880.06	Forest	1.08	1057.96	76.97
3560	J-1941	886.91	Forest	0.08	1064.87	76.99
4578	J-2403	879.98	Forest	0.68	1057.96	77.00
1506	J-751	882.96	Forest	0.08	1061.01	77.03
5929	J-3173	1040.88	Lakes	0.20	1218.96	77.05
1234	J-646	896.91	Forest	0.08	1075.00	77.05
3754	J-2048	879.31	Forest	1.28	1057.42	77.06
2030	J-1073	695.68	Forest	0.08	873.78	77.06
4190	J-2246	883.71	Forest	1.68	1061.88	77.09
7357	J-3977	886.64	Forest	0.08	1064.87	77.11
50	J-15	881.44	Forest	0.08	1059.69	77.12
6213	J-3340	879.54	Forest	1.08	1057.80	77.13
1619	J-809	878.81	Forest	0.68	1057.09	77.14
2098	J-1108	812.94	Lakes	0.20	991.24	77.14
897	J-503	879.94	Forest	0.28	1058.59	77.29
6212	J-3339	879.10	Forest	0.88	1057.80	77.31
1440	J-721	880.02	Forest	0.08	1058.72	77.32
1616	J-807	878.36	Forest	0.88	1057.07	77.32
995	J-545	879.87	Forest	0.48	1058.63	77.34
2341	J-1255	840.43	Lakes	0.81	1019.31	77.39
6572	J-3552	880.00	Forest	0.08	1058.95	77.42
6573	J-3553	880.00	Forest	1.68	1058.95	77.42
3765	J-2052	881.09	Forest	0.48	1060.04	77.42
5791	J-3096	879.65	Forest	1.48	1058.63	77.44
8517	J-4210	880.47	Forest	0.48	1059.47	77.45
1937	J-1013	814.26	Lakes	0.63	993.31	77.47
3597	J-1963	878.70	Forest	0.68	1057.83	77.50
4761	J-2505	878.62	Forest	0.48	1057.83	77.54
4952	J-2614	877.59	Forest	1.28	1056.80	77.54
3786	J-2062	878.18	Forest	0.28	1057.43	77.55
51	J-16	880.42	Forest	0.08	1059.70	77.56
4586	J-2408	879.46	Forest	0.48	1058.75	77.57
607	J-347	879.98	Forest	0.28	1059.28	77.58
1620	J-810	877.76	Forest	0.08	1057.09	77.59
2309	J-1238	884.22	Forest	1.08	1063.57	77.60
1877	J-975	883.23	Forest	1.48	1062.58	77.60
1779	J-911	877.56	Forest	0.48	1056.91	77.60
5663	J-3023	878.47	Forest	1.08	1057.83	77.60
1780	J-912	877.46	Forest	1.68	1056.90	77.64
832	J-471	883.72	Forest	0.08	1063.22	77.66
1920	J-1002	879.73	Forest	0.48	1059.26	77.67
4740	J-2494	884.63	Forest	0.48	1064.16	77.68
5555	J-2959	880.18	Forest	1.28	1059.73	77.68
1480	J-742	879.15	Forest	0.48	1058.75	77.70
796	J-452	884.56	Forest	0.48	1064.16	77.71
6550	J-3538	877.76	Forest	1.68	1057.42	77.73
1146	J-606	880.00	Forest	0.48	1059.73	77.76
7237	J-3929	878.08	Forest	0.68	1057.84	77.77
2299	J-1232	811.40	Lakes	0.55	991.26	77.81
5016	J-2651	879.87	Forest	0.08	1059.74	77.82
1874	J-973	843.00	Lakes	0.46	1022.86	77.82
2678	J-1443	878.46	Forest	1.28	1058.34	77.82
4296	J-2280	880.04	Forest	0.28	1059.95	77.84
79	J-34	885.00	Forest	0.28	1064.91	77.84
5731	J-3062	880.00	Forest	0.68	1059.93	77.85
5732	J-3063	880.00	Forest	0.68	1059.93	77.85
7617	J-4068	878.99	Forest	0.48	1059.00	77.88
7692	J-4089	879.92	Forest	0.48	1059.94	77.89
6551	J-3539	877.40	Forest	0.68	1057.42	77.89
5634	J-3005	879.55	Forest	0.08	1059.70	77.94
580	J-332	879.58	Forest	0.08	1059.74	77.95
5418	J-2882	877.88	Forest	0.68	1058.04	77.95
7900	J-4141	878.80	Forest	0.88	1059.00	77.96
67	J-26	881.10	Forest	0.08	1061.30	77.96
2306	J-1236	839.08	Lakes	0.55	1019.32	77.98
472	J-264	877.56	Forest	0.08	1057.84	78.00
78	J-33	884.61	Forest	0.48	1064.91	78.00
6859	J-3721	877.49	Forest	0.08	1057.80	78.01
1617	J-808	876.74	Forest	0.68	1057.07	78.02
5236	J-2776	877.61	Forest	0.88	1057.99	78.04
3652	J-1992	876.95	Forest	0.48	1057.42	78.08
2616	J-1407	878.13	Forest	0.48	1058.64	78.10
3802	J-2070	884.00	Forest	1.08	1064.62	78.15
666	J-384	883.49	Forest	0.28	1064.12	78.15
5419	J-2883	877.41	Forest	0.48	1058.04	78.15
3164	J-1713	876.20	Forest	0.08	1056.91	78.19
4880	J-2572	878.00	Forest	0.08	1058.72	78.19
4879	J-2571	877.98	Forest	0.08	1058.72	78.20
5237	J-2777	877.21	Forest	0.68	1057.99	78.21
4909	J-2589	876.64	Forest	0.68	1057.42	78.22
6283	J-3382	884.11	Forest	0.08	1064.91	78.22
4782	J-2517	876.12	Forest	0.48	1056.91	78.22

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4112	J-2212	883.25	Forest	1.48	1064.10	78.24
2240	J-1196	877.37	Forest	0.48	1058.25	78.26
66	J-25	880.41	Forest	0.08	1061.30	78.27
7325	J-3964	879.03	Forest	0.08	1059.95	78.27
2018	J-1066	841.76	Lakes	0.37	1022.89	78.37
5536	J-2949	877.91	Forest	0.28	1059.05	78.37
3795	J-2067	876.64	Forest	0.88	1057.83	78.39
3279	J-1784	876.90	Forest	0.28	1058.09	78.39
473	J-265	876.56	Forest	0.28	1057.84	78.43
2173	J-1156	880.73	Forest	0.68	1062.01	78.43
6635	J-3590	875.67	Forest	0.28	1057.02	78.46
1952	J-1023	883.27	Forest	1.68	1064.63	78.46
5538	J-2950	876.91	Forest	0.48	1058.27	78.46
4246	J-2263	877.31	Forest	1.08	1058.67	78.47
3131	J-1693	877.86	Forest	0.48	1059.26	78.48
3753	J-2047	876.00	Forest	1.08	1057.42	78.49
3613	J-1970	883.44	Forest	0.28	1064.87	78.50
1963	J-1030	877.79	Forest	0.08	1059.26	78.52
3810	J-2074	877.51	Forest	1.28	1059.05	78.54
4451	J-2329	879.05	Forest	0.48	1060.63	78.56
5408	J-2877	877.09	Forest	0.68	1058.67	78.56
410	J-226	879.01	Forest	0.08	1060.63	78.58
2700	J-1456	881.99	Forest	0.48	1063.71	78.62
6015	J-3221	878.40	Forest	0.08	1060.23	78.67
6255	J-3366	876.00	Forest	0.68	1057.84	78.67
6256	J-3367	876.00	Forest	0.28	1057.84	78.67
1033	J-561	876.00	Forest	0.68	1057.84	78.67
5178	J-2743	875.99	Forest	0.08	1057.84	78.68
5359	J-2848	877.12	Forest	0.08	1059.00	78.69
3764	J-2051	878.14	Forest	0.28	1060.04	78.70
5717	J-3054	878.00	Forest	1.08	1059.94	78.72
561	J-320	876.52	Forest	0.08	1058.49	78.73
2629	J-1414	876.24	Forest	0.48	1058.27	78.75
3276	J-1782	874.99	Forest	0.48	1057.02	78.75
5143	J-2723	877.23	Forest	0.08	1059.26	78.76
3278	J-1783	876.05	Forest	0.48	1058.09	78.76
5974	J-3198	1036.77	Lakes	0.37	1218.85	78.78
872	J-490	877.14	Forest	0.08	1059.26	78.79
3295	J-1793	877.14	Forest	0.88	1059.26	78.79
5360	J-2849	876.85	Forest	0.08	1059.00	78.81
7086	J-3852	881.05	Forest	0.08	1063.22	78.81
1898	J-988	874.78	Forest	2.09	1056.95	78.82
4370	J-2302	875.60	Forest	0.08	1057.80	78.83
8064	J-4164	876.45	Forest	1.28	1058.69	78.85
4866	J-2564	875.16	Forest	0.48	1057.41	78.85
5716	J-3053	877.64	Forest	0.68	1059.94	78.87
6081	J-3262	882.28	Forest	0.08	1064.60	78.88
3156	J-1708	875.02	Forest	0.08	1057.41	78.91
5450	J-2900	875.98	Forest	0.08	1058.40	78.92
285	J-146	876.08	Forest	0.08	1058.50	78.93
284	J-145	876.06	Forest	0.08	1058.50	78.93
3157	J-1709	874.97	Forest	0.68	1057.41	78.94
1474	J-739	876.17	Forest	0.08	1058.64	78.95
1562	J-776	1036.37	Lakes	0.20	1218.85	78.95
145	J-71	880.71	Forest	1.48	1063.25	78.98
409	J-225	878.02	Forest	0.28	1060.63	79.00
5154	J-2729	781.31	Forest	0.48	963.94	79.02
7376	J-3983	876.06	Forest	0.48	1058.72	79.03
1460	J-732	876.00	Forest	0.08	1058.70	79.04
5167	J-2737	875.92	Forest	0.08	1058.64	79.05
5168	J-2738	875.87	Forest	0.08	1058.64	79.07
6497	J-3507	875.69	Forest	0.08	1058.49	79.09
5490	J-2923	875.74	Forest	0.68	1058.64	79.13
3275	J-1781	874.11	Forest	1.28	1057.02	79.13
611	J-350	877.29	Forest	0.08	1060.20	79.14
5155	J-2730	780.99	Forest	0.88	963.94	79.15
6080	J-3261	881.58	Forest	0.48	1064.60	79.19
3369	J-1833	875.76	Forest	1.68	1058.81	79.20
3676	J-2004	874.28	Forest	0.88	1057.42	79.24
1041	J-565	874.68	Forest	0.08	1057.83	79.24
6812	J-3694	873.66	Forest	1.68	1056.94	79.30
423	J-234	875.06	Forest	0.08	1058.40	79.32
2527	J-1356	875.20	Forest	0.48	1058.64	79.37
4845	J-2552	875.30	Forest	1.08	1058.77	79.38
610	J-349	876.73	Forest	0.28	1060.23	79.39
3651	J-1991	873.74	Forest	1.28	1057.42	79.47
1419	J-708	874.92	Forest	0.28	1058.64	79.49
4642	J-2440	875.76	Forest	0.08	1059.52	79.50
6598	J-3567	873.61	Forest	0.48	1057.42	79.52
2163	J-1149	875.57	Forest	0.88	1059.43	79.55
7693	J-4090	876.00	Forest	0.08	1059.94	79.58
1993	J-1050	809.35	Lakes	0.46	993.32	79.60
1926	J-1006	879.26	Forest	0.88	1063.24	79.60
1186	J-621	891.02	Forest	0.08	1075.00	79.60
7632	J-4072	875.00	Forest	0.48	1059.00	79.61
42	J-10	779.95	Forest	0.48	963.96	79.61
4846	J-2553	874.75	Forest	1.28	1058.77	79.62
744	J-426	875.48	Forest	0.08	1059.52	79.63
3964	J-2147	877.57	Forest	0.88	1061.61	79.63
6948	J-3774	874.50	Forest	0.28	1058.64	79.67
7182	J-3901	875.83	Forest	0.28	1060.02	79.69
2510	J-1346	877.41	Forest	1.28	1061.61	79.70
2013	J-1063	809.07	Lakes	0.46	993.35	79.73
1043	J-566	1034.31	Lakes	0.20	1218.62	79.74
6698	J-3627	873.49	Forest	0.08	1057.83	79.75
3677	J-2005	873.08	Forest	1.08	1057.42	79.76
4085	J-2202	877.27	Forest	1.08	1061.62	79.76
6396	J-3449	877.25	Forest	1.08	1061.62	79.77
5455	J-2903	875.62	Forest	0.28	1060.02	79.78

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5454	J-2902	875.55	Forest	0.28	1060.02	79.81
5711	J-3050	877.82	Forest	0.48	1062.31	79.82
4896	J-2582	874.29	Forest	0.68	1058.81	79.83
1420	J-709	874.09	Forest	0.08	1058.64	79.85
7709	J-4094	873.06	Forest	0.08	1057.68	79.88
41	J-9	779.34	Forest	0.08	963.96	79.88
7661	J-4081	872.74	Forest	2.29	1057.41	79.90
5712	J-3051	877.59	Forest	0.28	1062.31	79.92
4589	J-2410	875.43	Forest	0.08	1060.16	79.92
3777	J-2058	879.86	Forest	1.08	1064.62	79.94
5349	J-2842	879.32	Forest	0.88	1064.11	79.95
2617	J-1408	873.82	Forest	0.08	1058.64	79.96
4588	J-2409	875.33	Forest	0.48	1060.16	79.97
2229	J-1190	877.17	Forest	0.88	1062.01	79.97
6197	J-3330	874.66	Forest	0.28	1059.53	79.98
3790	J-2064	879.74	Forest	0.68	1064.62	79.99
5999	J-3212	1033.71	Lakes	0.20	1218.62	80.00
1028	J-559	878.73	Forest	0.88	1063.66	80.01
5350	J-2843	879.18	Forest	2.49	1064.11	80.01
2751	J-1487	873.84	Forest	0.88	1058.81	80.03
3822	J-2079	878.70	Forest	2.09	1063.71	80.05
6582	J-3558	874.94	Forest	1.08	1059.98	80.06
6258	J-3368	878.65	Forest	0.08	1063.71	80.07
3577	J-1951	876.53	Forest	0.48	1061.62	80.08
5078	J-2688	879.54	Forest	0.28	1064.62	80.08
614	J-352	874.39	Forest	0.28	1059.47	80.08
3583	J-1954	873.50	Forest	0.08	1058.64	80.10
7489	J-4024	874.81	Forest	1.28	1059.97	80.11
3140	J-1699	872.64	Forest	0.08	1057.81	80.12
3814	J-2076	871.73	Forest	0.68	1056.94	80.13
3094	J-1670	879.40	Forest	0.08	1064.62	80.14
2677	J-1442	873.09	Forest	0.88	1058.34	80.15
3139	J-1698	872.52	Forest	0.08	1057.81	80.17
1819	J-937	874.14	Forest	0.08	1059.53	80.21
5442	J-2896	876.52	Forest	1.28	1061.96	80.23
8540	J-4220	889.55	Forest	0.08	1075.00	80.24
3105	J-1677	879.15	Forest	0.28	1064.62	80.25
2701	J-1457	878.22	Forest	0.68	1063.71	80.25
3004	J-1618	879.33	Forest	1.28	1064.85	80.26
2900	J-1571	873.11	Forest	2.09	1058.64	80.27
4221	J-2256	876.43	Forest	1.28	1061.96	80.27
3727	J-2033	873.08	Forest	1.28	1058.62	80.28
3106	J-1678	879.07	Forest	0.08	1064.62	80.28
5883	J-3148	878.03	Forest	0.48	1063.57	80.28
5147	J-2725	872.25	Forest	0.68	1057.81	80.28
4301	J-2283	874.17	Forest	0.28	1059.74	80.29
950	J-524	875.21	Forest	0.28	1060.81	80.30
6583	J-3559	874.37	Forest	0.28	1059.98	80.30
3093	J-1669	879.02	Forest	0.48	1064.62	80.30
3966	J-2148	872.60	Forest	0.08	1058.24	80.32
6002	J-3214	872.24	Forest	0.68	1057.89	80.32
4492	J-2353	872.53	Forest	0.28	1058.24	80.35
5343	J-2839	874.23	Forest	0.08	1059.94	80.35
3974	J-2153	873.95	Forest	0.88	1059.72	80.38
2529	J-1357	874.39	Forest	0.08	1060.19	80.39
6196	J-3329	873.72	Forest	0.28	1059.53	80.39
5342	J-2838	874.12	Forest	0.08	1059.94	80.40
6367	J-3432	875.72	Forest	0.08	1061.61	80.43
5500	J-2928	873.36	Forest	0.48	1059.27	80.43
1818	J-936	873.57	Forest	0.88	1059.52	80.45
2308	J-1237	877.60	Forest	1.48	1063.57	80.46
7431	J-4004	878.03	Forest	0.48	1064.12	80.51
424	J-235	872.31	Forest	0.08	1058.40	80.51
5254	J-2787	877.56	Forest	0.08	1063.66	80.52
6466	J-3489	872.15	Forest	0.48	1058.34	80.56
1697	J-858	871.12	Forest	0.48	1057.38	80.59
2530	J-1358	873.92	Forest	0.48	1060.19	80.59
6001	J-3213	871.61	Forest	0.08	1057.89	80.59
4422	J-2320	871.96	Forest	1.08	1058.24	80.60
6083	J-3263	878.50	Forest	0.88	1064.80	80.60
1858	J-962	872.93	Forest	1.28	1059.27	80.62
5114	J-2707	871.87	Forest	0.88	1058.24	80.63
7180	J-3900	875.22	Forest	0.08	1061.61	80.65
6368	J-3433	875.19	Forest	0.28	1061.61	80.66
6854	J-3718	873.21	Forest	1.48	1059.72	80.69
1169	J-614	873.24	Forest	0.48	1059.76	80.70
787	J-448	877.61	Forest	0.68	1064.14	80.70
6511	J-3515	875.63	Forest	0.08	1062.20	80.72
4403	J-2314	878.19	Forest	1.28	1064.80	80.73
3469	J-1889	872.00	Forest	1.28	1058.63	80.75
2737	J-1478	872.00	Forest	3.09	1058.64	80.75
5293	J-2809	873.26	Forest	0.08	1059.93	80.77
4684	J-2463	873.03	Forest	1.48	1059.76	80.79
1436	J-719	871.88	Forest	0.28	1058.64	80.80
5917	J-3166	1031.91	Lakes	0.20	1218.68	80.81
3248	J-1764	870.98	Forest	0.08	1057.80	80.83
5292	J-2808	873.11	Forest	0.48	1059.93	80.83
1698	J-859	870.49	Forest	0.48	1057.38	80.86
2594	J-1394	877.32	Forest	0.88	1064.21	80.86
7173	J-3898	873.02	Forest	0.08	1059.93	80.87
7172	J-3897	873.02	Forest	0.08	1059.93	80.87
3998	J-2162	776.99	Forest	0.48	963.94	80.88
6632	J-3588	871.65	Forest	0.28	1058.63	80.90
6467	J-3490	871.30	Forest	0.08	1058.34	80.92
4284	J-2276	877.50	Forest	0.08	1064.62	80.96
2194	J-1169	874.49	Forest	0.08	1061.61	80.96
367	J-198	872.46	Forest	0.68	1059.66	80.99
7374	J-3982	876.86	Forest	0.28	1064.12	81.02
4931	J-2602	872.67	Forest	0.08	1059.95	81.02

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2815	J-1524	776.65	Forest	0.48	963.95	81.04
7491	J-4025	872.54	Forest	0.68	1059.93	81.08
2138	J-1134	869.28	Forest	0.48	1056.73	81.10
4930	J-2601	872.47	Forest	0.08	1059.95	81.11
6189	J-3325	877.09	Forest	1.28	1064.62	81.14
3249	J-1765	870.26	Forest	0.08	1057.80	81.14
3774	J-2057	874.06	Forest	1.68	1061.62	81.15
1556	J-773	1031.13	Lakes	0.20	1218.68	81.15
1435	J-718	871.05	Forest	0.28	1058.64	81.16
6317	J-3402	869.12	Forest	0.88	1056.73	81.17
2551	J-1370	872.32	Forest	1.08	1059.94	81.17
6633	J-3589	871.01	Forest	0.08	1058.63	81.17
5904	J-3159	876.43	Forest	0.68	1064.12	81.20
831	J-470	875.21	Forest	0.08	1062.90	81.20
366	J-197	871.93	Forest	0.08	1059.66	81.22
939	J-518	870.94	Forest	0.28	1058.71	81.24
4556	J-2390	871.86	Forest	0.08	1059.66	81.25
3643	J-1986	869.61	Forest	0.88	1057.42	81.26
6036	J-3233	870.80	Forest	0.28	1058.64	81.27
6512	J-3516	874.34	Forest	0.88	1062.20	81.28
6884	J-3736	876.73	Forest	0.48	1064.60	81.28
854	J-482	871.83	Forest	1.08	1059.73	81.30
4823	J-2539	869.83	Forest	0.28	1057.76	81.31
5835	J-3121	872.00	Forest	0.08	1059.96	81.32
5836	J-3122	872.00	Forest	0.08	1059.96	81.32
6885	J-3737	876.60	Forest	0.48	1064.60	81.34
1051	J-570	876.54	Forest	0.08	1064.62	81.37
4933	J-2603	871.71	Forest	0.88	1059.82	81.38
1478	J-741	870.54	Forest	0.08	1058.64	81.39
4654	J-2446	870.53	Forest	0.48	1058.64	81.39
3618	J-1973	871.60	Forest	0.28	1059.73	81.40
3720	J-2029	874.45	Forest	0.68	1062.60	81.41
3525	J-1922	869.59	Forest	0.68	1057.76	81.41
6798	J-3686	869.62	Forest	0.08	1057.80	81.41
395	J-216	871.46	Forest	0.48	1059.66	81.43
7481	J-4022	871.67	Forest	1.28	1059.94	81.46
6188	J-3324	876.34	Forest	0.88	1064.62	81.46
2512	J-1347	870.29	Forest	0.28	1058.64	81.49
7574	J-4053	875.73	Forest	0.08	1064.12	81.51
5139	J-2721	871.53	Forest	0.08	1059.94	81.51
4934	J-2604	871.40	Forest	0.48	1059.82	81.52
578	J-331	871.90	Forest	2.29	1060.32	81.52
5807	J-3106	871.31	Forest	0.28	1059.73	81.52
5138	J-2720	871.38	Forest	0.08	1059.94	81.58
2550	J-1369	871.32	Forest	0.28	1059.94	81.61
1535	J-762	876.00	Forest	0.08	1064.63	81.61
5905	J-3160	875.48	Forest	0.08	1064.12	81.61
7517	J-4034	870.12	Forest	0.08	1058.76	81.62
1156	J-609	869.11	Forest	0.68	1057.84	81.65
7255	J-3938	871.18	Forest	0.08	1059.93	81.66
4031	J-2176	871.15	Forest	0.08	1059.97	81.70
2884	J-1563	875.96	Forest	0.68	1064.80	81.70
5789	J-3095	869.47	Forest	0.48	1058.36	81.73
3922	J-2128	868.91	Forest	0.88	1057.83	81.73
4812	J-2533	875.63	Forest	0.68	1064.62	81.77
7439	J-4007	875.10	Forest	0.48	1064.12	81.78
349	J-186	873.26	Forest	0.08	1062.32	81.80
3873	J-2104	869.28	Forest	0.68	1058.36	81.81
7254	J-3937	870.82	Forest	0.08	1059.93	81.82
6842	J-3712	873.47	Forest	0.48	1062.60	81.83
7223	J-3922	874.96	Forest	0.88	1064.11	81.84
2438	J-1307	869.50	Forest	0.28	1058.69	81.85
1443	J-723	869.43	Forest	1.08	1058.64	81.86
4570	J-2398	869.47	Forest	0.48	1058.71	81.88
4571	J-2399	869.45	Forest	0.08	1058.71	81.88
3499	J-1907	867.60	Forest	0.08	1056.91	81.91
4064	J-2191	869.03	Forest	1.28	1058.37	81.92
5690	J-3038	874.74	Forest	0.48	1064.11	81.93
4166	J-2236	872.54	Forest	1.68	1062.02	81.98
7519	J-4035	874.62	Forest	0.08	1064.11	81.99
6668	J-3609	868.34	Forest	0.48	1057.85	81.99
350	J-187	872.80	Forest	0.08	1062.32	82.00
8373	J-4174	869.17	Forest	1.68	1058.69	82.00
613	J-351	869.91	Forest	0.48	1059.45	82.00
305	J-158	871.28	Forest	0.88	1060.81	82.00
1964	J-1031	869.67	Forest	0.88	1059.25	82.02
6669	J-3610	868.19	Forest	0.08	1057.85	82.05
3470	J-1890	868.96	Forest	3.69	1058.62	82.06
1462	J-733	868.98	Forest	0.08	1058.64	82.06
4593	J-2412	868.97	Forest	0.08	1058.64	82.06
4110	J-2211	871.14	Forest	0.68	1060.81	82.06
2989	J-1611	875.14	Forest	0.08	1064.83	82.07
2233	J-1192	868.12	Forest	0.88	1057.82	82.07
1433	J-717	868.96	Forest	0.08	1058.69	82.09
304	J-157	871.01	Forest	0.28	1060.81	82.12
2172	J-1155	872.21	Forest	0.68	1062.01	82.12
1229	J-643	869.87	Forest	0.28	1059.71	82.13
5689	J-3037	874.26	Forest	2.09	1064.11	82.14
4330	J-2290	867.95	Forest	1.88	1057.83	82.15
1998	J-1053	803.43	Lakes	0.55	993.36	82.17
534	J-303	868.47	Forest	0.28	1058.41	82.18
1829	J-943	867.42	Forest	0.88	1057.38	82.18
3081	J-1662	874.86	Forest	0.28	1064.83	82.19
5893	J-3153	868.66	Forest	0.48	1058.69	82.22
1225	J-641	869.67	Forest	0.48	1059.73	82.23
3504	J-1910	869.88	Forest	0.08	1059.96	82.24
7023	J-3817	870.02	Forest	0.08	1060.27	82.31
6567	J-3549	873.85	Forest	1.88	1064.12	82.32
2522	J-1353	868.26	Forest	4.09	1058.64	82.37

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3576	J-1950	871.22	Forest	1.68	1061.62	82.38
7295	J-3953	869.48	Forest	0.08	1059.94	82.40
3524	J-1921	867.22	Forest	0.48	1057.76	82.43
2164	J-1150	868.80	Forest	1.08	1059.43	82.48
1432	J-716	868.00	Forest	0.08	1058.69	82.50
3787	J-2063	866.70	Forest	0.08	1057.43	82.52
4982	J-2631	869.56	Forest	0.08	1060.33	82.54
2481	J-1331	867.96	Forest	1.08	1058.76	82.55
3817	J-2077	866.07	Forest	3.29	1056.94	82.58
5632	J-3004	870.42	Forest	0.08	1061.30	82.58
2745	J-1483	870.27	Forest	1.08	1061.30	82.65
7546	J-4046	873.07	Forest	0.08	1064.11	82.66
6737	J-3649	867.54	Forest	1.28	1058.62	82.67
2924	J-1582	869.53	Forest	1.68	1060.62	82.68
7246	J-3933	873.02	Forest	0.08	1064.12	82.68
6514	J-3517	870.92	Forest	0.48	1062.02	82.68
1983	J-1043	873.45	Forest	0.88	1064.61	82.70
2437	J-1306	867.51	Forest	0.08	1058.69	82.71
904	J-506	868.54	Forest	0.28	1059.74	82.72
1412	J-704	873.38	Forest	0.08	1064.63	82.74
455	J-254	868.99	Forest	0.08	1060.33	82.78
6912	J-3753	772.57	Forest	0.08	963.95	82.80
3019	J-1623	868.54	Forest	0.08	1059.94	82.81
3505	J-1911	868.55	Forest	0.68	1059.96	82.81
3639	J-1984	867.23	Forest	0.28	1058.68	82.83
5627	J-3001	868.01	Forest	0.48	1059.53	82.86
5088	J-2693	867.13	Forest	0.08	1058.69	82.88
6568	J-3550	872.55	Forest	0.08	1064.12	82.88
5955	J-3188	868.24	Forest	0.08	1059.86	82.91
4130	J-2220	866.44	Forest	0.88	1058.09	82.92
5863	J-3137	868.27	Forest	0.48	1059.93	82.92
7524	J-4037	872.44	Forest	0.08	1064.12	82.93
3193	J-1730	868.29	Forest	0.08	1059.97	82.93
1044	J-567	1026.90	Lakes	0.20	1218.62	82.95
2588	J-1390	868.20	Forest	1.08	1059.94	82.96
2466	J-1323	868.11	Forest	0.28	1059.86	82.96
6022	J-3225	866.33	Forest	0.28	1058.09	82.97
2593	J-1393	872.43	Forest	0.48	1064.21	82.97
7905	J-4142	868.16	Forest	0.28	1059.93	82.97
5191	J-2750	866.60	Forest	1.28	1058.38	82.97
3828	J-2082	772.11	Forest	1.28	963.94	83.00
6887	J-3738	868.08	Forest	0.08	1059.93	83.00
3128	J-1691	866.48	Forest	0.28	1058.38	83.02
5758	J-3078	872.31	Forest	0.68	1064.21	83.02
788	J-449	872.21	Forest	0.88	1064.12	83.03
7117	J-3869	872.69	Forest	0.08	1064.60	83.03
2457	J-1317	866.81	Forest	1.08	1058.76	83.05
5862	J-3136	867.96	Forest	0.28	1059.93	83.06
2137	J-1133	864.69	Forest	0.88	1056.73	83.09
3728	J-2034	866.57	Forest	1.88	1058.62	83.09
945	J-521	868.39	Forest	0.48	1060.45	83.10
5118	J-2709	872.02	Forest	0.08	1064.11	83.11
1396	J-695	872.53	Forest	0.08	1064.63	83.11
7118	J-3870	872.49	Forest	0.08	1064.60	83.12
1397	J-696	872.48	Forest	0.08	1064.63	83.13
4605	J-2419	871.96	Forest	0.08	1064.12	83.14
3129	J-1692	866.20	Forest	1.08	1058.38	83.14
7890	J-4140	866.51	Forest	0.28	1058.68	83.14
1403	J-699	866.47	Forest	0.08	1058.64	83.14
5516	J-2937	866.45	Forest	0.48	1058.64	83.15
2443	J-1309	867.65	Forest	0.28	1059.86	83.16
3194	J-1731	867.74	Forest	0.08	1059.97	83.17
7400	J-3993	867.48	Forest	0.48	1059.76	83.19
2444	J-1310	867.51	Forest	0.08	1059.86	83.22
1655	J-831	872.40	Forest	0.68	1064.80	83.24
1518	J-756	867.85	Forest	0.48	1060.27	83.25
3973	J-2152	867.25	Forest	1.28	1059.73	83.27
1633	J-818	866.16	Forest	1.68	1058.64	83.28
6379	J-3439	864.92	Forest	0.48	1057.42	83.29
2287	J-1224	866.48	Forest	1.08	1059.00	83.29
1404	J-700	866.12	Forest	0.48	1058.64	83.30
4841	J-2550	872.10	Forest	0.08	1064.63	83.30
5944	J-3182	867.87	Forest	0.48	1060.45	83.32
5626	J-3000	866.93	Forest	0.08	1059.53	83.33
6547	J-3536	869.00	Forest	0.48	1061.61	83.34
1010	J-552	871.46	Forest	0.48	1064.11	83.35
4297	J-2281	867.26	Forest	0.08	1059.93	83.36
5757	J-3077	871.53	Forest	0.48	1064.21	83.36
2897	J-1570	771.23	Forest	0.48	963.94	83.38
2458	J-1318	866.03	Forest	1.08	1058.76	83.39
5945	J-3183	867.72	Forest	0.48	1060.45	83.39
3644	J-1987	864.66	Forest	1.08	1057.42	83.40
7520	J-4036	871.22	Forest	0.08	1064.11	83.46
3461	J-1885	867.90	Forest	0.48	1060.81	83.46
6386	J-3443	868.00	Forest	0.08	1060.94	83.48
5410	J-2878	866.25	Forest	0.08	1059.26	83.51
5879	J-3146	864.76	Forest	0.08	1057.80	83.52
4554	J-2389	867.76	Forest	0.08	1060.81	83.52
262	J-131	865.42	Forest	0.28	1058.55	83.56
6913	J-3754	770.78	Forest	0.08	963.95	83.57
3992	J-2159	865.82	Forest	1.08	1059.00	83.58
7479	J-4021	871.41	Forest	0.08	1064.61	83.59
3367	J-1832	865.48	Forest	0.08	1058.69	83.59
5878	J-3145	864.52	Forest	0.28	1057.80	83.62
3541	J-1930	865.97	Forest	0.08	1059.26	83.63
5364	J-2851	865.65	Forest	0.08	1059.00	83.65
261	J-130	865.19	Forest	0.08	1058.55	83.66
3490	J-1902	866.55	Forest	0.48	1059.97	83.68
6548	J-3537	868.16	Forest	1.08	1061.61	83.70

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
347	J-185	866.29	Forest	0.48	1059.76	83.71
2393	J-1285	871.06	Forest	0.08	1064.63	83.75
1509	J-752	867.34	Forest	0.48	1060.94	83.76
4365	J-2301	866.28	Forest	0.48	1059.91	83.77
346	J-184	866.11	Forest	0.08	1059.76	83.79
7002	J-3805	864.13	Forest	0.08	1057.83	83.80
5774	J-3087	870.41	Forest	0.48	1064.11	83.81
6687	J-3620	863.70	Forest	0.68	1057.42	83.82
5913	J-3164	1024.98	Lakes	0.29	1218.74	83.83
3198	J-1733	864.00	Forest	0.08	1057.80	83.85
3199	J-1734	864.00	Forest	0.08	1057.80	83.85
5542	J-2952	864.00	Forest	0.08	1057.80	83.85
3646	J-1988	870.98	Forest	0.48	1064.83	83.87
3330	J-1812	864.76	Forest	0.08	1058.67	83.90
4399	J-2313	863.43	Forest	0.08	1057.42	83.93
1654	J-830	870.80	Forest	0.48	1064.80	83.94
5773	J-3086	870.09	Forest	0.28	1064.11	83.95
1417	J-707	864.64	Forest	0.08	1058.68	83.95
6517	J-3519	870.53	Forest	0.48	1064.60	83.97
6263	J-3371	867.08	Forest	0.88	1061.17	83.97
5362	J-2850	864.57	Forest	0.08	1058.68	83.99
6688	J-3621	863.26	Forest	0.68	1057.42	84.01
2169	J-1153	869.86	Forest	0.48	1064.11	84.04
6010	J-3218	865.50	Forest	0.88	1059.94	84.12
5591	J-2980	865.20	Forest	0.48	1059.76	84.18
5042	J-2667	864.19	Forest	1.88	1058.76	84.18
5043	J-2668	864.14	Forest	1.08	1058.76	84.20
6711	J-3634	865.24	Forest	0.08	1059.91	84.22
1538	J-763	1024.06	Lakes	0.20	1218.74	84.23
2941	J-1590	828.21	Lakes	0.89	1022.89	84.23
6331	J-3410	864.00	Forest	0.28	1058.68	84.23
915	J-509	864.00	Forest	0.48	1058.68	84.23
6516	J-3518	869.90	Forest	0.48	1064.60	84.24
8477	J-4190	866.78	Forest	0.68	1061.50	84.25
3489	J-1901	865.25	Forest	0.08	1059.97	84.25
1953	J-1024	869.89	Forest	0.88	1064.62	84.25
1340	J-685	1023.94	Lakes	0.20	1218.74	84.28
2035	J-1076	828.00	Lakes	1.06	1022.80	84.28
6340	J-3416	863.77	Forest	0.28	1058.65	84.31
6011	J-3219	865.05	Forest	0.08	1059.94	84.32
2630	J-1415	863.38	Forest	1.28	1058.27	84.32
7381	J-3986	865.00	Forest	0.08	1059.93	84.34
7878	J-4137	864.99	Forest	0.88	1059.94	84.35
3329	J-1811	863.68	Forest	0.28	1058.67	84.36
6006	J-3216	863.67	Forest	0.28	1058.67	84.37
669	J-386	864.75	Forest	1.08	1059.76	84.37
123	J-59	865.18	Forest	0.48	1060.21	84.38
6341	J-3417	863.58	Forest	0.08	1058.65	84.40
5833	J-3120	867.99	Forest	0.48	1063.08	84.40
456	J-255	865.22	Forest	0.28	1060.33	84.42
8151	J-4169	862.64	Forest	1.08	1057.79	84.43
3460	J-1884	865.63	Forest	0.68	1060.81	84.45
137	J-67	865.98	Forest	0.88	1061.17	84.45
7380	J-3985	864.73	Forest	1.08	1059.93	84.46
596	J-341	863.31	Forest	0.08	1058.54	84.46
4278	J-2274	865.10	Forest	1.28	1060.33	84.47
6332	J-3411	863.44	Forest	0.08	1058.68	84.47
207	J-95	863.41	Forest	0.08	1058.68	84.49
4087	J-2203	867.76	Forest	0.88	1063.08	84.50
7120	J-3871	862.07	Forest	0.08	1057.40	84.51
4478	J-2345	862.04	Forest	0.88	1057.40	84.52
677	J-391	865.54	Forest	0.08	1061.05	84.59
3154	J-1707	864.57	Forest	0.48	1060.21	84.64
4479	J-2346	861.74	Forest	0.88	1057.40	84.65
7610	J-4065	862.79	Forest	7.61	1058.69	84.76
1079	J-580	1022.76	Lakes	0.20	1218.68	84.77
4976	J-2628	861.04	Forest	0.28	1056.98	84.77
7184	J-3902	868.57	Forest	0.08	1064.63	84.83
1552	J-771	1022.26	Lakes	0.20	1218.32	84.83
5902	J-3158	863.43	Forest	0.48	1059.53	84.84
5509	J-2933	1022.50	Lakes	0.29	1218.68	84.88
4862	J-2562	868.43	Forest	0.48	1064.62	84.88
4128	J-2219	863.82	Forest	0.48	1060.01	84.88
5876	J-3144	863.81	Forest	1.68	1060.01	84.89
5963	J-3192	1021.89	Lakes	0.20	1218.32	84.99
2404	J-1291	868.14	Forest	0.08	1064.63	85.01
1004	J-548	867.99	Forest	0.48	1064.62	85.07
6684	J-3618	861.25	Forest	0.28	1057.88	85.07
3860	J-2098	860.72	Forest	0.88	1057.42	85.10
5414	J-2880	860.66	Forest	1.08	1057.42	85.13
5900	J-3157	1021.78	Lakes	0.20	1218.61	85.16
6774	J-3671	861.84	Forest	0.28	1058.68	85.16
1542	J-765	1021.75	Lakes	0.20	1218.61	85.17
3616	J-1972	860.00	Forest	0.68	1056.98	85.22
5534	J-2948	867.58	Forest	0.08	1064.62	85.25
4680	J-2461	860.57	Forest	0.48	1057.68	85.28
4178	J-2240	866.97	Forest	1.68	1064.10	85.29
1464	J-734	861.52	Forest	0.28	1058.65	85.29
7582	J-4056	862.35	Forest	0.48	1059.53	85.31
6773	J-3670	861.50	Forest	0.08	1058.68	85.31
7578	J-4055	861.47	Forest	0.08	1058.68	85.32
1797	J-923	862.31	Forest	0.28	1059.53	85.32
1777	J-910	860.15	Forest	0.88	1057.40	85.34
3990	J-2158	864.76	Forest	1.88	1062.02	85.34
2757	J-1490	867.34	Forest	0.88	1064.62	85.35
4354	J-2296	860.46	Forest	1.08	1057.82	85.39
5970	J-3196	860.40	Forest	0.48	1057.79	85.40
6685	J-3619	860.49	Forest	0.28	1057.88	85.40
864	J-486	864.00	Forest	0.48	1061.44	85.42

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5593	J-2981	864.00	Forest	0.48	1061.44	85.42
860	J-484	863.91	Forest	0.88	1061.38	85.44
928	J-513	861.03	Forest	0.08	1058.55	85.45
4679	J-2460	860.10	Forest	0.48	1057.68	85.48
1455	J-729	863.45	Forest	0.08	1061.04	85.49
6769	J-3668	862.40	Forest	0.48	1060.02	85.50
7797	J-4120	860.22	Forest	2.29	1057.87	85.52
4007	J-2166	861.01	Forest	0.28	1058.67	85.52
966	J-531	862.28	Forest	0.28	1060.02	85.55
3615	J-1971	859.22	Forest	2.49	1056.98	85.56
8015	J-4158	860.99	Forest	1.88	1058.76	85.57
6840	J-3711	860.88	Forest	0.48	1058.69	85.58
5116	J-2708	860.83	Forest	0.48	1058.67	85.60
3501	J-1908	863.71	Forest	0.88	1061.61	85.62
7044	J-3828	866.68	Forest	0.08	1064.63	85.64
5785	J-3093	859.83	Forest	0.68	1057.82	85.66
708	J-407	863.49	Forest	0.08	1061.50	85.67
3264	J-1774	860.71	Forest	0.28	1058.78	85.69
850	J-479	860.61	Forest	0.28	1058.75	85.73
1899	J-989	858.84	Forest	2.29	1056.99	85.73
4498	J-2356	860.38	Forest	0.08	1058.58	85.75
5969	J-3195	859.54	Forest	2.09	1057.79	85.77
3265	J-1775	860.52	Forest	0.28	1058.78	85.78
124	J-60	861.96	Forest	0.28	1060.31	85.81
3032	J-1631	860.32	Forest	0.48	1058.68	85.82
1111	J-594	863.22	Forest	0.08	1061.62	85.84
4874	J-2568	860.34	Forest	0.28	1058.78	85.86
6918	J-3757	861.37	Forest	0.68	1059.82	85.86
3031	J-1630	860.22	Forest	0.28	1058.68	85.86
4395	J-2311	861.25	Forest	2.09	1059.73	85.87
6839	J-3710	860.17	Forest	0.08	1058.69	85.89
6895	J-3743	861.31	Forest	0.68	1059.88	85.91
1718	J-872	859.24	Forest	0.88	1057.83	85.92
4358	J-2298	861.28	Forest	0.68	1059.88	85.93
1476	J-740	860.00	Forest	0.08	1058.66	85.95
4974	J-2627	860.00	Forest	0.08	1058.66	85.95
377	J-204	859.83	Forest	0.28	1058.58	85.99
8485	J-4194	859.90	Forest	0.48	1058.68	86.00
5110	J-2705	862.34	Forest	0.08	1061.21	86.04
7543	J-4045	858.53	Forest	0.08	1057.41	86.05
2978	J-1605	824.00	Lakes	1.06	1022.90	86.05
5753	J-3075	865.90	Forest	0.08	1064.81	86.06
4509	J-2363	858.47	Forest	2.49	1057.40	86.07
2210	J-1178	764.91	Forest	0.08	963.95	86.12
232	J-111	860.78	Forest	0.68	1059.82	86.12
6900	J-3746	860.67	Forest	0.08	1059.73	86.12
4508	J-2362	858.27	Forest	1.68	1057.40	86.15
6919	J-3758	860.67	Forest	0.08	1059.82	86.16
5279	J-2801	860.66	Forest	0.68	1059.82	86.16
6700	J-3628	861.09	Forest	0.08	1060.31	86.19
599	J-343	861.98	Forest	0.08	1061.21	86.20
2814	J-1523	764.71	Forest	0.48	963.95	86.20
378	J-205	859.25	Forest	0.48	1058.58	86.24
231	J-110	860.44	Forest	0.68	1059.82	86.26
5474	J-2914	862.36	Forest	0.68	1061.75	86.26
3721	J-2030	863.21	Forest	0.88	1062.60	86.27
3791	J-2065	865.13	Forest	0.48	1064.62	86.31
7419	J-4000	860.83	Forest	0.08	1060.36	86.33
4490	J-2352	860.22	Forest	0.68	1059.76	86.33
6901	J-3747	860.17	Forest	0.28	1059.73	86.34
5128	J-2715	864.55	Forest	0.08	1064.11	86.34
6492	J-3504	858.19	Forest	1.28	1057.81	86.37
7280	J-3948	860.12	Forest	0.48	1059.82	86.40
3270	J-1778	860.22	Forest	0.08	1059.94	86.41
6493	J-3505	858.08	Forest	0.68	1057.81	86.41
5475	J-2915	862.02	Forest	0.68	1061.75	86.41
1812	J-932	862.32	Forest	0.88	1062.12	86.44
1283	J-666	859.94	Forest	0.68	1059.76	86.45
2785	J-1507	764.07	Forest	0.48	963.95	86.48
1048	J-569	863.00	Forest	0.08	1062.90	86.49
5702	J-3045	860.00	Forest	0.28	1059.93	86.50
7272	J-3945	860.00	Forest	1.08	1059.93	86.50
956	J-527	864.11	Forest	0.08	1064.11	86.53
2195	J-1170	861.53	Forest	0.68	1061.61	86.57
3894	J-2115	859.97	Forest	0.68	1060.05	86.57
3071	J-1656	861.32	Forest	0.08	1061.53	86.62
1917	J-1000	859.02	Forest	0.88	1059.26	86.64
3868	J-2101	763.69	Forest	0.08	963.96	86.64
3070	J-1655	861.26	Forest	7.88	1061.53	86.65
4814	J-2534	861.26	Forest	0.08	1061.53	86.65
7196	J-3908	857.13	Forest	0.08	1057.41	86.65
3581	J-1953	864.34	Forest	0.88	1064.62	86.65
616	J-353	860.06	Forest	0.88	1060.36	86.66
3311	J-1801	864.45	Forest	0.48	1064.81	86.69
5112	J-2706	857.31	Forest	0.68	1057.80	86.74
1264	J-656	858.24	Forest	0.88	1058.76	86.75
3269	J-1777	859.39	Forest	0.08	1059.94	86.77
7279	J-3947	859.24	Forest	0.08	1059.82	86.78
6415	J-3460	860.98	Forest	0.08	1061.62	86.80
166	J-82	863.41	Forest	1.08	1064.06	86.81
1457	J-730	858.00	Forest	0.28	1058.65	86.81
7197	J-3909	856.76	Forest	0.08	1057.41	86.81
2170	J-1154	863.36	Forest	1.28	1064.11	86.85
853	J-481	858.98	Forest	0.28	1059.73	86.85
2562	J-1376	860.00	Forest	0.48	1060.81	86.88
768	J-438	859.90	Forest	0.08	1060.78	86.91
640	J-368	860.61	Forest	0.08	1061.53	86.93
5172	J-2740	863.68	Forest	0.48	1064.62	86.93
6310	J-3398	860.10	Forest	0.08	1061.04	86.94

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
861	J-485	860.33	Forest	0.88	1061.33	86.96
1203	J-630	856.79	Forest	0.08	1057.80	86.97
1859	J-963	858.22	Forest	0.68	1059.26	86.98
3725	J-2032	857.50	Forest	0.08	1058.62	87.02
7792	J-4118	857.54	Forest	0.48	1058.68	87.02
1558	J-774	1017.40	Lakes	0.20	1218.55	87.03
3238	J-1758	860.46	Forest	0.28	1061.62	87.03
114	J-55	862.19	Forest	1.68	1063.35	87.03
5907	J-3161	857.45	Forest	2.49	1058.62	87.04
5486	J-2921	860.08	Forest	0.68	1061.33	87.07
4713	J-2478	858.13	Forest	0.08	1059.39	87.08
5230	J-2773	858.64	Forest	0.08	1059.94	87.09
465	J-260	860.30	Forest	0.68	1061.62	87.10
777	J-443	858.06	Forest	0.08	1059.39	87.11
493	J-277	859.46	Forest	0.08	1060.81	87.11
4591	J-2411	862.69	Forest	0.08	1064.06	87.12
8469	J-4186	860.16	Forest	0.48	1061.56	87.14
7614	J-4067	856.00	Forest	0.48	1057.40	87.14
7529	J-4040	856.00	Forest	0.08	1057.40	87.14
4552	J-2388	856.00	Forest	0.08	1057.41	87.14
7266	J-3942	856.00	Forest	0.68	1057.41	87.14
5881	J-3147	1017.10	Lakes	0.20	1218.55	87.16
483	J-271	862.57	Forest	0.88	1064.06	87.18
5297	J-2811	861.81	Forest	0.48	1063.35	87.20
639	J-367	860.00	Forest	0.08	1061.56	87.20
4551	J-2387	855.84	Forest	0.08	1057.41	87.21
1717	J-871	856.19	Forest	1.28	1057.81	87.23
4722	J-2483	857.11	Forest	0.08	1058.76	87.25
8523	J-4213	856.91	Forest	6.12	1058.64	87.28
3397	J-1848	857.04	Forest	0.28	1058.78	87.28
4073	J-2196	857.02	Forest	0.48	1058.78	87.29
2632	J-1416	855.61	Forest	0.88	1057.40	87.31
3237	J-1757	859.80	Forest	0.08	1061.62	87.32
113	J-54	861.42	Forest	0.08	1063.30	87.34
5229	J-2772	858.04	Forest	0.08	1059.94	87.35
7190	J-3905	856.84	Forest	0.08	1058.76	87.36
1430	J-715	858.87	Forest	0.28	1060.88	87.40
7077	J-3847	860.82	Forest	0.08	1062.90	87.43
2964	J-1598	862.72	Forest	0.28	1064.81	87.43
2612	J-1405	856.27	Forest	0.68	1058.36	87.44
492	J-276	858.69	Forest	0.28	1060.81	87.45
1921	J-1003	857.11	Forest	0.68	1059.25	87.46
4872	J-2567	855.66	Forest	0.08	1057.82	87.47
7508	J-4030	857.29	Forest	1.28	1059.46	87.47
4723	J-2484	856.59	Forest	0.08	1058.76	87.47
2580	J-1386	858.60	Forest	0.68	1060.81	87.49
238	J-115	857.62	Forest	0.08	1059.84	87.49
3611	J-1969	862.59	Forest	0.08	1064.83	87.50
4757	J-2503	856.53	Forest	0.68	1058.78	87.50
7653	J-4079	859.36	Forest	0.08	1061.63	87.51
1428	J-714	856.31	Forest	0.08	1058.64	87.54
5703	J-3046	857.60	Forest	0.28	1059.93	87.54
3224	J-1749	857.72	Forest	0.48	1060.06	87.54
1545	J-767	1016.00	Lakes	0.20	1218.36	87.55
237	J-114	857.47	Forest	0.08	1059.84	87.56
2329	J-1249	858.38	Forest	0.28	1060.81	87.58
8475	J-4189	856.22	Forest	0.28	1058.68	87.60
3299	J-1795	855.34	Forest	0.88	1057.82	87.61
4377	J-2304	854.93	Forest	0.28	1057.41	87.61
3103	J-1676	854.86	Forest	0.68	1057.42	87.64
3102	J-1675	854.83	Forest	0.08	1057.42	87.65
3502	J-1909	859.00	Forest	0.08	1061.61	87.66
6608	J-3573	859.50	Forest	0.08	1062.12	87.67
520	J-294	856.00	Forest	0.48	1058.67	87.69
521	J-295	856.00	Forest	0.48	1058.67	87.69
5101	J-2700	856.00	Forest	0.08	1058.67	87.69
3332	J-1813	856.00	Forest	0.88	1058.75	87.72
2314	J-1241	856.21	Forest	1.08	1059.04	87.75
3333	J-1814	855.80	Forest	0.08	1058.75	87.81
2808	J-1520	854.86	Forest	1.28	1057.82	87.81
6613	J-3576	855.76	Forest	0.08	1058.75	87.82
6614	J-3577	855.71	Forest	0.88	1058.75	87.85
6353	J-3424	856.39	Forest	0.48	1059.53	87.89
7561	J-4051	856.39	Forest	0.48	1059.53	87.89
1297	J-674	857.70	Forest	0.08	1060.88	87.90
870	J-489	1014.74	Lakes	0.20	1217.94	87.92
2883	J-1562	861.59	Forest	1.08	1064.80	87.92
8495	J-4200	855.43	Forest	0.48	1058.65	87.92
1813	J-933	858.86	Forest	0.48	1062.11	87.94
6609	J-3574	858.84	Forest	0.28	1062.12	87.95
6915	J-3755	856.42	Forest	0.88	1059.73	87.96
1796	J-922	856.20	Forest	0.48	1059.52	87.97
8502	J-4204	855.41	Forest	0.08	1058.75	87.98
5885	J-3149	857.50	Forest	0.08	1060.88	87.99
1628	J-815	856.42	Forest	0.48	1059.84	88.01
588	J-336	860.64	Forest	0.68	1064.10	88.03
3223	J-1748	856.58	Forest	0.68	1060.06	88.03
7422	J-4001	860.69	Forest	1.68	1064.21	88.05
6352	J-3423	856.00	Forest	0.08	1059.53	88.06
8542	J-4221	871.46	Forest	0.08	1075.00	88.06
2972	J-1602	856.07	Forest	0.28	1059.63	88.07
3196	J-1732	854.67	Forest	0.28	1058.24	88.08
3939	J-2136	855.64	Forest	1.08	1059.26	88.10
2072	J-1096	1014.32	Lakes	0.37	1218.03	88.14
8496	J-4201	854.93	Forest	0.28	1058.65	88.14
5383	J-2863	853.59	Forest	0.88	1057.40	88.18
4704	J-2473	860.24	Forest	0.08	1064.09	88.20
4686	J-2464	857.74	Forest	0.28	1061.63	88.22
5201	J-2755	856.02	Forest	0.88	1059.93	88.22

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3714	J-2026	860.68	Forest	0.48	1064.62	88.24
6101	J-3273	1014.08	Lakes	0.20	1218.03	88.24
5608	J-2990	856.06	Forest	0.48	1060.06	88.26
2655	J-1430	858.11	Forest	0.68	1062.12	88.26
2858	J-1549	854.20	Forest	0.08	1058.24	88.28
589	J-337	860.02	Forest	0.48	1064.09	88.29
6585	J-3560	854.17	Forest	0.28	1058.24	88.29
851	J-480	854.66	Forest	0.08	1058.78	88.31
5382	J-2862	853.26	Forest	0.08	1057.40	88.32
7040	J-3826	860.47	Forest	0.08	1064.63	88.33
4864	J-2563	859.89	Forest	0.48	1064.06	88.34
936	J-517	859.80	Forest	0.28	1064.06	88.37
7098	J-3858	856.92	Forest	0.48	1061.21	88.39
5170	J-2739	854.46	Forest	0.08	1058.78	88.40
1406	J-701	856.50	Forest	0.08	1060.88	88.42
726	J-418	855.48	Forest	0.08	1059.85	88.42
6450	J-3480	857.17	Forest	0.48	1061.62	88.45
3569	J-1946	857.09	Forest	0.48	1061.62	88.49
5048	J-2671	854.01	Forest	0.68	1058.56	88.50
226	J-107	857.08	Forest	0.28	1061.63	88.50
2385	J-1281	860.07	Forest	0.08	1064.63	88.50
721	J-415	856.22	Forest	0.08	1060.81	88.52
8614	J-4223	860.00	Forest	0.00	1064.63	88.53
8617	J-4224	860.00	Forest	0.00	1064.63	88.53
4520	J-2369	1118.26	Stewartsville	0.40	1322.92	88.54
2633	J-1417	852.74	Forest	0.88	1057.40	88.54
161	J-79	856.96	Forest	0.28	1061.64	88.56
7528	J-4039	852.69	Forest	0.08	1057.40	88.57
946	J-522	855.72	Forest	1.08	1060.50	88.60
2463	J-1321	856.00	Forest	0.08	1060.81	88.61
4662	J-2450	859.79	Forest	1.28	1064.62	88.62
3209	J-1740	852.83	Forest	0.28	1057.82	88.69
6750	J-3657	854.44	Forest	0.08	1059.46	88.70
1093	J-586	855.76	Forest	7.00	1060.81	88.72
2464	J-1322	855.75	Forest	0.68	1060.81	88.72
2356	J-1263	859.55	Forest	1.48	1064.62	88.72
1087	J-584	1117.80	Stewartsville	0.55	1322.92	88.74
225	J-106	856.51	Forest	0.28	1061.63	88.75
156	J-76	856.88	Forest	0.08	1062.03	88.76
7012	J-3811	854.49	Forest	0.28	1059.63	88.76
4382	J-2307	852.67	Forest	1.08	1057.83	88.76
6654	J-3601	859.45	Forest	0.48	1064.62	88.77
4838	J-2548	854.72	Forest	0.08	1059.92	88.78
3343	J-1819	852.62	Forest	0.48	1057.82	88.78
5202	J-2756	854.67	Forest	0.88	1059.93	88.81
5049	J-2672	853.24	Forest	0.08	1058.56	88.83
6751	J-3658	854.08	Forest	0.28	1059.46	88.86
3585	J-1955	855.91	Forest	0.08	1061.32	88.87
5213	J-2762	852.38	Forest	0.48	1057.83	88.89
3210	J-1741	852.36	Forest	0.08	1057.82	88.89
5909	J-3162	1012.91	Lakes	0.20	1218.38	88.90
4753	J-2501	852.35	Forest	0.28	1057.82	88.90
3947	J-2140	858.19	Forest	0.48	1063.71	88.92
3047	J-1640	1012.34	Lakes	0.20	1217.94	88.95
4839	J-2549	854.29	Forest	0.28	1059.92	88.97
8529	J-4216	853.05	Forest	0.48	1058.68	88.97
5212	J-2761	852.16	Forest	0.68	1057.83	88.98
4698	J-2470	1012.26	Lakes	0.20	1217.94	88.99
3048	J-1641	1012.25	Lakes	0.20	1217.94	88.99
7301	J-3956	853.63	Forest	0.08	1059.46	89.05
1458	J-731	852.82	Forest	0.48	1058.65	89.05
5544	J-2953	852.81	Forest	0.08	1058.65	89.06
5518	J-2938	854.64	Forest	0.48	1060.50	89.07
4546	J-2384	851.86	Forest	0.88	1057.76	89.08
3882	J-2109	851.10	Forest	1.68	1056.99	89.08
3090	J-1667	851.86	Forest	0.48	1057.76	89.08
3371	J-1834	858.60	Forest	0.08	1064.62	89.14
7153	J-3889	853.80	Forest	0.08	1059.93	89.19
5325	J-2828	853.79	Forest	0.88	1059.93	89.19
3207	J-1739	858.41	Forest	0.08	1064.62	89.22
1544	J-766	1012.13	Lakes	0.20	1218.38	89.23
4363	J-2300	853.13	Forest	1.08	1059.45	89.26
3184	J-1725	858.45	Forest	0.08	1064.79	89.27
756	J-432	852.30	Forest	0.48	1058.67	89.28
3091	J-1668	851.38	Forest	0.08	1057.76	89.29
4715	J-2479	853.26	Forest	0.08	1059.66	89.30
1885	J-980	858.19	Forest	0.48	1064.62	89.31
338	J-179	855.19	Forest	0.08	1061.62	89.31
337	J-178	855.17	Forest	0.08	1061.62	89.32
3183	J-1724	858.29	Forest	0.08	1064.79	89.34
7706	J-4093	853.93	Forest	1.08	1060.45	89.35
5326	J-2829	853.39	Forest	0.28	1059.93	89.36
598	J-342	854.70	Forest	0.08	1061.32	89.40
1415	J-706	852.00	Forest	0.48	1058.64	89.41
5776	J-3088	852.00	Forest	0.08	1058.64	89.41
1414	J-705	852.00	Forest	0.08	1058.64	89.41
903	J-505	852.93	Forest	0.08	1059.66	89.44
7450	J-4009	853.20	Forest	2.09	1059.94	89.45
4581	J-2405	852.00	Forest	1.08	1058.75	89.45
6004	J-3215	853.27	Forest	0.08	1060.05	89.47
1427	J-713	851.82	Forest	0.08	1058.64	89.48
4582	J-2406	851.91	Forest	1.28	1058.75	89.49
5809	J-3107	851.77	Forest	0.08	1058.64	89.50
7211	J-3915	857.76	Forest	0.28	1064.63	89.50
6757	J-3661	853.48	Forest	0.68	1060.39	89.52
6166	J-3312	856.78	Forest	0.68	1063.71	89.53
7337	J-3968	854.38	Forest	0.08	1061.32	89.54
5329	J-2831	851.65	Forest	0.08	1058.62	89.55
6916	J-3756	852.67	Forest	0.28	1059.73	89.58

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
8039	J-4161	854.64	Forest	0.28	1061.75	89.61
6237	J-3355	857.07	Forest	0.48	1064.21	89.62
5302	J-2814	854.88	Forest	0.48	1062.02	89.62
6890	J-3740	852.82	Forest	0.48	1059.96	89.62
6236	J-3354	857.04	Forest	0.88	1064.21	89.63
3662	J-1996	851.57	Forest	0.28	1058.78	89.65
866	J-487	853.56	Forest	0.28	1060.78	89.65
6889	J-3739	852.66	Forest	2.09	1059.96	89.69
1100	J-590	853.07	Forest	1.08	1060.39	89.70
3045	J-1639	852.72	Forest	0.08	1060.05	89.70
3044	J-1638	852.72	Forest	0.48	1060.05	89.70
2352	J-1261	811.85	Lakes	0.72	1019.31	89.76
5826	J-3116	854.52	Forest	0.08	1062.03	89.78
45	J-12	852.51	Forest	0.48	1060.06	89.80
3909	J-2122	857.25	Forest	0.48	1064.84	89.81
868	J-488	854.02	Forest	0.68	1061.62	89.82
2923	J-1581	852.99	Forest	1.48	1060.62	89.83
6735	J-3648	853.10	Forest	0.28	1060.78	89.86
3372	J-1835	856.87	Forest	1.08	1064.62	89.88
5347	J-2841	850.01	Forest	0.28	1057.76	89.88
7151	J-3888	856.41	Forest	0.08	1064.21	89.90
44	J-11	852.18	Forest	0.28	1060.05	89.93
2381	J-1278	856.73	Forest	0.08	1064.63	89.95
2786	J-1508	756.04	Forest	1.08	963.95	89.95
7501	J-4028	849.45	Forest	2.09	1057.40	89.97
4071	J-2195	849.77	Forest	0.28	1057.76	89.99
1224	J-640	851.73	Forest	0.48	1059.74	90.00
120	J-57	855.36	Forest	0.48	1063.41	90.01
5328	J-2830	850.57	Forest	0.08	1058.62	90.01
4014	J-2169	849.74	Forest	1.08	1057.81	90.02
6127	J-3289	849.31	Forest	2.09	1057.40	90.03
5939	J-3179	852.36	Forest	0.08	1060.45	90.03
6800	J-3687	850.46	Forest	2.09	1058.62	90.06
6793	J-3683	856.45	Forest	0.08	1064.62	90.06
6358	J-3427	850.66	Forest	0.88	1058.95	90.12
7461	J-4014	851.71	Forest	0.08	1060.01	90.12
5778	J-3089	853.29	Forest	0.08	1061.64	90.14
1254	J-652	853.25	Forest	0.68	1061.63	90.15
5479	J-2917	848.62	Forest	0.28	1056.99	90.15
6846	J-3714	856.19	Forest	0.48	1064.62	90.18
6577	J-3555	851.30	Forest	0.68	1059.74	90.18
3232	J-1754	853.56	Forest	0.28	1062.02	90.19
2746	J-1484	852.84	Forest	1.08	1061.30	90.19
6850	J-3716	851.24	Forest	0.88	1059.72	90.20
4777	J-2514	851.81	Forest	0.08	1060.33	90.21
817	J-462	853.08	Forest	0.08	1061.63	90.23
5623	J-2998	848.84	Forest	0.88	1057.40	90.23
976	J-536	848.15	Forest	0.68	1056.74	90.25
654	J-377	853.08	Forest	0.48	1061.72	90.27
4136	J-2223	851.05	Forest	1.48	1059.72	90.29
3625	J-1976	855.90	Forest	0.08	1064.62	90.30
3325	J-1809	851.60	Forest	0.08	1060.33	90.31
3478	J-1895	851.52	Forest	0.88	1060.33	90.34
4638	J-2438	1114.07	Stewartsville	0.26	1322.91	90.35
6570	J-3551	851.96	Forest	0.08	1060.81	90.36
1116	J-595	852.00	Forest	0.28	1060.87	90.37
841	J-475	850.82	Forest	0.88	1059.70	90.37
7336	J-3967	852.43	Forest	0.48	1061.32	90.38
6897	J-3744	755.04	Forest	0.08	963.94	90.38
6923	J-3760	850.80	Forest	0.88	1059.72	90.39
7460	J-4013	851.05	Forest	1.08	1060.01	90.41
3432	J-1868	849.64	Forest	2.89	1058.62	90.42
567	J-324	851.75	Forest	0.08	1060.81	90.45
3853	J-2095	851.00	Forest	0.68	1060.05	90.45
5624	J-2999	848.34	Forest	0.88	1057.40	90.45
2331	J-1250	852.93	Forest	1.28	1062.02	90.46
459	J-257	1008.92	Lakes	0.29	1218.02	90.47
3324	J-1808	851.20	Forest	0.48	1060.33	90.48
6128	J-3290	848.24	Forest	0.08	1057.40	90.49
4357	J-2297	850.70	Forest	0.68	1059.89	90.51
1799	J-924	849.39	Forest	0.28	1058.65	90.53
3126	J-1690	850.42	Forest	0.08	1059.70	90.55
2729	J-1473	849.66	Forest	1.08	1058.95	90.55
5938	J-3178	851.16	Forest	0.08	1060.45	90.55
6008	J-3217	854.10	Forest	0.48	1063.41	90.56
2184	J-1163	851.96	Forest	0.48	1061.29	90.57
6962	J-3782	850.62	Forest	0.08	1059.99	90.59
4118	J-2215	848.40	Forest	1.48	1057.81	90.60
4476	J-2344	851.84	Forest	0.48	1061.29	90.62
5936	J-3177	851.38	Forest	0.08	1060.86	90.64
1510	J-753	851.20	Forest	0.48	1060.86	90.71
4152	J-2229	847.72	Forest	0.88	1057.42	90.72
3838	J-2087	754.24	Forest	0.48	963.95	90.73
6479	J-3497	854.39	Forest	0.08	1064.10	90.73
6616	J-3578	850.15	Forest	0.28	1059.89	90.74
234	J-112	1113.09	Stewartsville	0.11	1322.91	90.78
4993	J-2638	854.24	Forest	0.88	1064.10	90.80
4396	J-2312	849.85	Forest	1.28	1059.72	90.80
235	J-113	1113.01	Stewartsville	0.11	1322.91	90.81
5818	J-3112	851.70	Forest	0.28	1061.62	90.82
5959	J-3190	753.96	Forest	0.08	963.95	90.85
2328	J-1248	850.76	Forest	0.48	1060.81	90.88
5097	J-2698	851.54	Forest	0.48	1061.66	90.91
6964	J-3783	849.08	Forest	0.68	1059.26	90.93
7132	J-3877	847.20	Forest	0.48	1057.40	90.94
3186	J-1726	850.23	Forest	0.48	1060.43	90.94
2997	J-1615	850.59	Forest	0.48	1060.81	90.95
1167	J-613	847.53	Forest	0.48	1057.82	90.98
4037	J-2178	848.40	Forest	0.68	1058.75	91.01

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1732	J-881	848.56	Forest	0.48	1058.99	91.04
7726	J-4100	854.36	Forest	0.28	1064.84	91.07
4826	J-2541	851.18	Forest	0.08	1061.72	91.09
6522	J-3522	850.50	Forest	0.28	1061.04	91.09
2743	J-1482	851.09	Forest	1.48	1061.66	91.10
6961	J-3781	849.43	Forest	0.08	1059.99	91.10
934	J-516	853.49	Forest	1.28	1064.10	91.12
4825	J-2540	851.04	Forest	1.68	1061.72	91.15
8215	J-4171	850.13	Forest	1.08	1060.81	91.15
3845	J-2091	847.66	Forest	1.08	1058.37	91.17
89	J-40	849.71	Forest	0.08	1060.43	91.17
506	J-285	850.20	Forest	0.08	1061.04	91.22
4201	J-2250	848.41	Forest	0.28	1059.26	91.23
7133	J-3878	846.52	Forest	0.08	1057.40	91.24
914	J-508	847.66	Forest	0.88	1058.66	91.29
8491	J-4198	847.65	Forest	0.08	1058.65	91.29
7966	J-4152	848.24	Forest	19.88	1059.33	91.33
3221	J-1747	1006.92	Lakes	0.20	1218.04	91.34
3566	J-1944	852.92	Forest	0.48	1064.10	91.37
3226	J-1750	850.11	Forest	0.08	1061.32	91.38
458	J-256	1006.82	Lakes	0.20	1218.04	91.38
4219	J-2255	848.45	Forest	0.68	1059.72	91.41
3227	J-1751	850.04	Forest	0.28	1061.32	91.41
1741	J-887	847.54	Forest	0.68	1058.99	91.49
8493	J-4199	849.34	Forest	0.68	1060.81	91.50
3527	J-1923	847.79	Forest	0.28	1059.35	91.53
8343	J-4173	845.76	Forest	0.68	1057.41	91.57
3087	J-1666	847.88	Forest	0.48	1059.66	91.63
2831	J-1533	847.89	Forest	0.48	1059.72	91.65
2611	J-1404	846.51	Forest	0.68	1058.36	91.66
1664	J-836	846.88	Forest	0.88	1058.81	91.69
6502	J-3510	846.38	Forest	1.48	1058.37	91.72
2742	J-1481	849.65	Forest	1.48	1061.65	91.72
6787	J-3679	848.00	Forest	0.08	1060.01	91.73
6788	J-3680	848.00	Forest	0.48	1060.01	91.73
4127	J-2218	848.00	Forest	1.28	1060.01	91.73
5046	J-2670	849.24	Forest	0.28	1061.32	91.76
3086	J-1665	847.55	Forest	0.48	1059.66	91.77
1438	J-720	846.47	Forest	0.28	1058.64	91.80
3848	J-2093	846.56	Forest	1.68	1058.75	91.80
6458	J-3485	849.95	Forest	0.08	1062.15	91.81
5160	J-2733	846.54	Forest	0.48	1058.75	91.81
5840	J-3124	845.19	Forest	0.48	1057.40	91.82
566	J-323	848.59	Forest	0.08	1060.81	91.82
5687	J-3036	847.43	Forest	0.88	1059.69	91.83
6526	J-3524	847.07	Forest	1.48	1059.35	91.85
2724	J-1470	845.10	Forest	1.68	1057.40	91.85
6097	J-3271	846.07	Forest	0.28	1058.37	91.85
2920	J-1580	846.31	Forest	0.88	1058.62	91.85
6117	J-3283	1006.03	Lakes	0.20	1218.34	91.86
7160	J-3893	846.98	Forest	0.08	1059.35	91.88
1884	J-979	852.19	Forest	0.88	1064.61	91.90
697	J-401	849.73	Forest	1.08	1062.15	91.91
5003	J-2644	851.63	Forest	0.08	1064.06	91.91
4413	J-2317	845.93	Forest	0.88	1058.37	91.91
6910	J-3752	845.34	Forest	0.28	1057.80	91.92
840	J-474	847.23	Forest	0.28	1059.69	91.92
2211	J-1179	751.36	Forest	0.48	963.95	91.98
4995	J-2639	845.93	Forest	0.28	1058.54	91.99
1276	J-662	852.00	Forest	0.28	1064.63	91.99
5468	J-2911	852.00	Forest	0.08	1064.63	91.99
4069	J-2194	846.98	Forest	0.28	1059.66	92.02
5841	J-3125	844.65	Forest	2.09	1057.40	92.05
5045	J-2669	848.56	Forest	1.08	1061.32	92.05
5446	J-2898	846.22	Forest	0.28	1059.00	92.06
6413	J-3459	851.43	Forest	0.08	1064.21	92.06
781	J-445	848.00	Forest	0.28	1060.79	92.07
7389	J-3989	848.00	Forest	0.28	1060.79	92.07
6116	J-3282	1005.54	Lakes	0.20	1218.34	92.07
8490	J-4197	845.81	Forest	0.48	1058.65	92.09
1272	J-660	1005.77	Lakes	0.20	1218.61	92.09
4148	J-2228	850.22	Forest	1.08	1063.08	92.10
439	J-244	847.14	Forest	0.08	1060.02	92.10
7538	J-4043	845.02	Forest	0.48	1057.93	92.11
1144	J-605	844.89	Forest	0.28	1057.81	92.12
5243	J-2781	846.81	Forest	1.88	1059.74	92.12
1804	J-927	851.85	Forest	1.08	1064.79	92.13
2183	J-1162	848.33	Forest	0.68	1061.28	92.14
2081	J-1099	851.34	Forest	0.08	1064.31	92.14
6140	J-3297	847.08	Forest	0.08	1060.05	92.14
5242	J-2780	846.75	Forest	1.68	1059.74	92.15
5934	J-3176	849.00	Forest	0.88	1061.99	92.15
7046	J-3829	750.91	Forest	1.28	963.94	92.17
505	J-284	848.00	Forest	0.08	1061.03	92.17
8473	J-4188	848.00	Forest	0.68	1061.03	92.17
2725	J-1471	844.36	Forest	0.88	1057.40	92.17
2260	J-1208	845.96	Forest	1.08	1059.00	92.17
4996	J-2640	845.50	Forest	0.28	1058.54	92.17
653	J-376	848.70	Forest	0.28	1061.75	92.18
1024	J-557	847.92	Forest	1.08	1060.97	92.18
5933	J-3175	848.93	Forest	0.68	1061.99	92.18
4919	J-2595	845.70	Forest	3.29	1058.77	92.18
4516	J-2367	844.29	Forest	0.88	1057.40	92.20
316	J-165	848.00	Forest	0.28	1061.15	92.22
315	J-164	848.00	Forest	0.88	1061.15	92.22
3567	J-1945	850.95	Forest	1.88	1064.10	92.22
5991	J-3208	1005.46	Lakes	0.20	1218.61	92.22
632	J-363	848.00	Forest	1.08	1061.21	92.25
1204	J-631	844.54	Forest	0.08	1057.80	92.27

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
991	J-543	850.74	Forest	0.68	1064.06	92.30
434	J-241	847.79	Forest	0.48	1061.11	92.30
8500	J-4203	845.04	Forest	0.48	1058.37	92.30
4792	J-2523	847.77	Forest	0.28	1061.11	92.31
2590	J-1391	850.85	Forest	0.48	1064.21	92.31
440	J-245	846.54	Forest	0.48	1060.02	92.36
5426	J-2887	845.28	Forest	0.08	1058.76	92.36
763	J-436	845.79	Forest	0.08	1059.33	92.39
6412	J-3458	850.63	Forest	0.48	1064.21	92.40
3257	J-1770	845.14	Forest	1.68	1058.76	92.43
6139	J-3296	846.41	Forest	2.49	1060.05	92.43
3546	J-1933	750.24	Forest	2.69	963.94	92.46
7786	J-4117	846.24	Forest	1.48	1059.94	92.46
4918	J-2594	845.00	Forest	2.09	1058.77	92.49
1887	J-981	844.00	Forest	0.48	1057.80	92.50
5803	J-3104	843.96	Forest	0.68	1057.82	92.53
258	J-128	846.16	Forest	0.08	1060.02	92.53
5802	J-3103	843.94	Forest	0.48	1057.82	92.53
276	J-140	846.04	Forest	2.09	1059.94	92.55
259	J-129	846.09	Forest	0.08	1060.02	92.56
1918	J-1001	845.31	Forest	0.48	1059.26	92.56
4720	J-2482	843.85	Forest	0.08	1057.81	92.57
435	J-242	847.14	Forest	0.08	1061.12	92.58
3941	J-2137	847.29	Forest	1.28	1061.29	92.58
5621	J-2997	845.91	Forest	0.08	1059.94	92.60
3829	J-2083	749.89	Forest	0.88	963.94	92.61
3846	J-2092	844.32	Forest	1.08	1058.37	92.61
299	J-154	845.92	Forest	0.08	1060.02	92.63
5849	J-3129	1004.32	Lakes	0.20	1218.50	92.66
968	J-532	844.62	Forest	0.28	1058.82	92.67
6970	J-3786	846.94	Forest	0.08	1061.15	92.68
275	J-139	845.67	Forest	0.88	1059.94	92.70
6898	J-3745	749.48	Forest	0.28	963.94	92.79
1740	J-886	844.44	Forest	0.28	1058.99	92.83
1731	J-880	844.35	Forest	0.48	1058.99	92.87
6844	J-3713	844.00	Forest	1.28	1058.67	92.88
7175	J-3899	849.94	Forest	0.48	1064.63	92.89
6184	J-3322	1108.28	Stewartsville	0.11	1322.98	92.89
4038	J-2179	844.01	Forest	2.09	1058.75	92.91
1665	J-837	844.05	Forest	0.28	1058.81	92.92
2834	J-1535	843.89	Forest	0.88	1058.67	92.92
2382	J-1279	849.83	Forest	0.48	1064.63	92.94
1560	J-775	1003.69	Lakes	0.20	1218.50	92.94
3888	J-2112	842.92	Forest	0.88	1057.82	92.98
2158	J-1146	843.84	Forest	0.08	1058.76	92.99
5216	J-2764	843.86	Forest	0.08	1058.81	93.00
698	J-402	847.15	Forest	0.88	1062.10	93.00
165	J-81	848.94	Forest	1.28	1063.91	93.01
3528	J-1924	844.36	Forest	0.48	1059.35	93.01
3382	J-1840	846.13	Forest	0.68	1061.15	93.03
5551	J-2957	844.47	Forest	0.48	1059.58	93.06
1325	J-681	845.76	Forest	0.48	1060.87	93.07
2944	J-1591	844.45	Forest	0.08	1059.58	93.07
6662	J-3605	849.42	Forest	0.88	1064.60	93.10
2919	J-1579	843.36	Forest	2.49	1058.61	93.13
631	J-362	845.95	Forest	0.68	1061.21	93.13
5022	J-2655	842.54	Forest	0.68	1057.83	93.15
6058	J-3247	846.07	Forest	0.08	1061.38	93.16
5215	J-2763	843.41	Forest	0.28	1058.81	93.19
1565	J-777	1002.88	Lakes	0.20	1218.43	93.26
7251	J-3936	845.79	Forest	0.08	1061.38	93.28
5265	J-2793	843.13	Forest	0.08	1058.75	93.29
5557	J-2960	848.26	Forest	2.09	1063.91	93.30
4682	J-2462	748.27	Forest	0.88	963.94	93.31
3547	J-1934	748.27	Forest	0.88	963.94	93.31
353	J-189	1107.30	Stewartsville	0.40	1322.98	93.32
6663	J-3606	848.87	Forest	0.88	1064.60	93.34
352	J-188	1107.22	Stewartsville	0.11	1322.98	93.35
5009	J-2647	842.98	Forest	0.28	1058.75	93.35
5010	J-2648	842.96	Forest	1.08	1058.75	93.36
825	J-467	845.38	Forest	0.88	1061.18	93.37
5558	J-2961	848.00	Forest	1.28	1063.91	93.41
5667	J-3025	845.88	Forest	0.28	1061.83	93.43
5805	J-3105	1002.35	Lakes	0.20	1218.43	93.49
5439	J-2894	841.60	Forest	0.48	1057.81	93.54
3701	J-2019	845.61	Forest	0.08	1061.83	93.55
5021	J-2654	841.54	Forest	0.48	1057.83	93.58
2141	J-1136	844.03	Forest	0.48	1060.45	93.63
5106	J-2703	844.38	Forest	0.48	1060.84	93.65
2591	J-1392	847.72	Forest	0.68	1064.21	93.66
618	J-354	844.51	Forest	0.48	1061.12	93.72
5039	J-2665	840.73	Forest	2.89	1057.40	93.74
7113	J-3867	843.77	Forest	0.28	1060.45	93.75
7533	J-4041	841.95	Forest	0.08	1058.75	93.80
722	J-416	844.00	Forest	0.08	1060.81	93.80
1703	J-862	844.00	Forest	0.08	1060.84	93.81
4453	J-2330	843.58	Forest	0.48	1060.45	93.83
5610	J-2991	847.72	Forest	0.88	1064.60	93.83
3702	J-2020	844.94	Forest	0.48	1061.83	93.84
4454	J-2331	843.55	Forest	0.48	1060.45	93.85
5040	J-2666	840.42	Forest	0.48	1057.40	93.88
5440	J-2895	840.81	Forest	0.28	1057.81	93.88
1080	J-581	1001.64	Lakes	0.20	1218.65	93.89
4958	J-2618	842.81	Forest	0.28	1059.93	93.94
962	J-529	840.69	Forest	0.28	1057.82	93.94
3122	J-1688	843.29	Forest	0.28	1060.47	93.96
1743	J-888	847.38	Forest	0.88	1064.60	93.98
4769	J-2510	847.57	Forest	0.68	1064.84	94.00
1849	J-956	843.78	Forest	0.48	1061.07	94.01

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4065	J-2192	841.05	Forest	0.68	1058.37	94.02
820	J-464	843.59	Forest	0.28	1061.02	94.07
5315	J-2822	843.40	Forest	0.88	1060.84	94.07
1472	J-738	841.17	Forest	0.08	1058.64	94.09
682	J-393	842.26	Forest	1.28	1059.75	94.10
6528	J-3525	1001.15	Lakes	0.20	1218.65	94.10
1850	J-957	843.55	Forest	0.88	1061.07	94.11
6704	J-3630	840.39	Forest	0.48	1057.94	94.12
7025	J-3818	847.04	Forest	0.08	1064.63	94.14
4768	J-2509	847.21	Forest	0.28	1064.84	94.16
5314	J-2821	843.20	Forest	1.28	1060.84	94.16
421	J-233	843.39	Forest	0.28	1061.06	94.17
4957	J-2617	842.21	Forest	0.28	1059.93	94.20
1821	J-938	840.01	Forest	0.68	1057.82	94.24
90	J-41	842.63	Forest	0.28	1060.47	94.25
1704	J-863	842.98	Forest	0.48	1060.84	94.26
420	J-232	843.14	Forest	0.08	1061.06	94.28
6059	J-3248	843.38	Forest	0.08	1061.38	94.32
6852	J-3717	842.89	Forest	0.28	1061.06	94.39
7761	J-4108	841.74	Forest	1.08	1059.96	94.41
1720	J-873	842.77	Forest	0.48	1061.02	94.43
6929	J-3763	745.65	Forest	0.08	963.95	94.45
1805	J-928	846.44	Forest	0.48	1064.79	94.47
6705	J-3631	839.58	Forest	0.08	1057.94	94.47
2878	J-1559	842.56	Forest	0.48	1061.07	94.54
1129	J-598	840.00	Forest	0.48	1058.56	94.56
5136	J-2719	840.00	Forest	0.08	1058.56	94.56
3178	J-1721	840.12	Forest	0.08	1058.75	94.59
3177	J-1720	840.11	Forest	0.68	1058.75	94.60
6019	J-3223	839.12	Forest	0.08	1057.81	94.62
6372	J-3435	998.98	Lakes	0.20	1217.72	94.64
1250	J-651	998.91	Lakes	0.29	1217.72	94.67
7206	J-3913	841.75	Forest	1.28	1060.84	94.79
1143	J-604	838.54	Forest	0.48	1057.81	94.87
4485	J-2349	841.57	Forest	0.48	1060.84	94.87
7186	J-3903	845.35	Forest	0.28	1064.63	94.87
4486	J-2350	841.54	Forest	0.28	1060.84	94.88
247	J-121	838.47	Forest	0.08	1057.80	94.89
6020	J-3224	838.45	Forest	0.08	1057.81	94.91
4646	J-2442	838.24	Forest	0.08	1057.80	95.00
246	J-120	838.23	Forest	0.48	1057.80	95.00
5787	J-3094	838.21	Forest	0.08	1057.81	95.01
6943	J-3771	838.75	Forest	0.88	1058.37	95.02
1580	J-784	842.35	Forest	0.68	1062.01	95.04
7054	J-3834	1103.19	Stewartsville	0.11	1322.91	95.06
6593	J-3564	838.86	Forest	0.08	1058.65	95.09
1579	J-783	842.20	Forest	0.88	1062.01	95.10
486	J-272	841.30	Forest	1.08	1061.22	95.15
5979	J-3201	837.85	Forest	0.08	1057.80	95.16
2896	J-1569	743.99	Forest	0.88	963.94	95.16
2372	J-1273	844.65	Forest	0.08	1064.63	95.17
780	J-444	840.72	Forest	0.08	1060.80	95.22
487	J-273	841.09	Forest	0.28	1061.22	95.24
7602	J-4062	997.85	Lakes	0.37	1218.02	95.26
121	J-58	843.26	Forest	0.08	1063.48	95.28
2384	J-1280	844.36	Forest	0.28	1064.63	95.30
187	J-90	841.66	Forest	1.48	1062.04	95.34
6594	J-3565	838.27	Forest	0.28	1058.65	95.35
4525	J-2372	839.88	Forest	0.08	1060.36	95.39
4524	J-2371	839.87	Forest	1.28	1060.36	95.39
389	J-212	837.32	Forest	0.08	1057.82	95.40
5448	J-2899	837.24	Forest	0.48	1057.81	95.43
7394	J-3990	844.00	Forest	0.08	1064.62	95.45
7395	J-3991	844.00	Forest	0.48	1064.62	95.45
656	J-378	839.39	Forest	0.08	1060.02	95.45
30	J-2	839.47	Forest	0.08	1060.11	95.46
4328	J-2289	841.45	Forest	1.28	1062.10	95.47
1242	J-649	837.13	Forest	0.08	1057.80	95.47
838	J-473	840.35	Forest	0.08	1061.10	95.51
3667	J-1999	844.01	Forest	0.28	1064.79	95.52
3666	J-1998	844.00	Forest	1.08	1064.79	95.53
6429	J-3468	840.31	Forest	0.28	1061.10	95.53
806	J-457	840.18	Forest	0.48	1061.07	95.57
553	J-315	840.77	Forest	1.88	1061.81	95.63
6930	J-3764	742.90	Forest	0.08	963.95	95.64
2791	J-1511	836.72	Forest	0.08	1057.81	95.66
390	J-213	836.63	Forest	0.08	1057.82	95.69
5748	J-3072	842.00	Forest	0.08	1063.20	95.70
500	J-281	839.99	Forest	0.28	1061.23	95.72
3216	J-1744	837.45	Forest	0.88	1058.75	95.75
8114	J-4168	837.36	Forest	0.28	1058.68	95.76
527	J-299	1101.56	Stewartsville	0.11	1322.91	95.77
5967	J-3194	843.37	Forest	0.28	1064.79	95.80
4133	J-2222	842.62	Forest	2.69	1064.12	95.83
5250	J-2785	842.62	Forest	0.48	1064.12	95.83
2917	J-1578	801.33	Lakes	0.37	1022.87	95.85
321	J-168	1101.30	Stewartsville	0.11	1322.91	95.88
2089	J-1102	996.40	Lakes	0.46	1218.02	95.89
4560	J-2392	996.38	Lakes	0.20	1218.02	95.89
762	J-435	837.64	Forest	0.28	1059.29	95.90
3217	J-1745	837.10	Forest	0.68	1058.75	95.90
4561	J-2393	996.30	Lakes	0.20	1218.02	95.93
152	J-74	841.48	Forest	0.48	1063.20	95.93
2085	J-1100	996.29	Lakes	0.63	1218.02	95.93
2086	J-1101	996.29	Lakes	0.46	1218.02	95.93
1753	J-895	838.26	Forest	0.88	1060.08	95.97
2500	J-1341	836.94	Forest	1.68	1058.76	95.97
526	J-298	1100.91	Stewartsville	0.26	1322.91	96.05
6596	J-3566	837.23	Forest	0.28	1059.29	96.08

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2460	J-1319	836.63	Forest	0.68	1058.76	96.11
1744	J-889	842.41	Forest	0.48	1064.60	96.13
2461	J-1320	836.49	Forest	0.88	1058.76	96.17
1990	J-1048	842.24	Forest	0.68	1064.61	96.21
1055	J-571	1100.54	Stewartsville	0.55	1322.91	96.21
6660	J-3604	835.34	Forest	0.28	1057.80	96.25
6150	J-3302	741.42	Forest	1.48	963.94	96.27
2389	J-1283	842.07	Forest	0.08	1064.63	96.29
2758	J-1491	842.00	Forest	1.28	1064.62	96.32
8511	J-4208	836.00	Forest	0.08	1058.65	96.33
627	J-360	838.29	Forest	0.08	1060.99	96.35
322	J-169	1100.18	Stewartsville	0.40	1322.91	96.37
6155	J-3305	838.78	Forest	0.68	1061.61	96.41
4943	J-2609	1100.05	Stewartsville	0.11	1322.91	96.42
4093	J-2205	839.77	Forest	0.68	1062.63	96.42
827	J-468	1100.00	Stewartsville	0.11	1322.91	96.44
5965	J-3193	1100.00	Stewartsville	0.26	1322.91	96.44
7204	J-3912	837.06	Forest	0.48	1060.02	96.46
1714	J-869	835.64	Forest	0.88	1058.76	96.54
1349	J-687	836.67	Forest	0.08	1060.02	96.63
6462	J-3487	1099.61	Stewartsville	0.26	1322.98	96.64
3626	J-1977	841.17	Forest	0.88	1064.62	96.67
662	J-382	836.29	Forest	1.48	1059.74	96.68
5195	J-2752	838.45	Forest	1.88	1061.93	96.69
2140	J-1135	836.96	Forest	0.68	1060.45	96.70
6408	J-3456	840.00	Forest	0.48	1063.74	96.80
715	J-411	1099.21	Stewartsville	0.26	1322.98	96.81
3593	J-1960	835.94	Forest	1.68	1059.72	96.82
7225	J-3923	834.93	Forest	0.08	1058.76	96.84
171	J-85	839.89	Forest	0.08	1063.74	96.85
4222	J-2257	838.03	Forest	0.28	1061.93	96.87
29	J-1	836.20	Forest	1.48	1060.11	96.88
3664	J-1997	837.69	Forest	1.08	1061.61	96.88
3957	J-2144	835.78	Forest	2.49	1059.73	96.89
8203	J-4170	834.82	Forest	2.29	1058.76	96.89
4690	J-2466	840.55	Forest	0.28	1064.62	96.94
5412	J-2879	834.63	Forest	0.28	1058.76	96.97
4116	J-2214	837.40	Forest	1.08	1061.61	97.01
7649	J-4078	835.75	Forest	0.08	1060.01	97.03
3484	J-1898	833.53	Forest	1.28	1057.82	97.04
1752	J-894	835.68	Forest	0.88	1060.08	97.09
4407	J-2315	833.39	Forest	0.68	1057.80	97.09
648	J-373	839.06	Forest	0.68	1063.49	97.10
552	J-314	837.39	Forest	0.88	1061.83	97.10
1822	J-939	833.37	Forest	0.68	1057.82	97.11
2730	J-1474	834.41	Forest	0.88	1058.95	97.15
1005	J-549	839.99	Forest	0.68	1064.62	97.18
1679	J-846	836.17	Forest	0.08	1060.83	97.20
6639	J-3592	839.83	Forest	0.48	1064.62	97.25
798	J-453	1098.06	Stewartsville	0.55	1322.91	97.28
5182	J-2745	835.91	Forest	0.68	1060.83	97.31
3767	J-2053	836.70	Forest	0.48	1061.62	97.31
2357	J-1264	839.60	Forest	0.88	1064.60	97.35
7229	J-3925	839.58	Forest	0.08	1064.63	97.37
6954	J-3777	835.74	Forest	0.08	1060.80	97.37
3447	J-1876	834.87	Forest	0.48	1059.96	97.39
1680	J-847	835.60	Forest	1.48	1060.84	97.45
6295	J-3389	836.36	Forest	0.88	1061.62	97.46
430	J-239	837.59	Forest	0.08	1062.90	97.48
6151	J-3303	738.52	Forest	0.88	963.94	97.53
8062	J-4163	833.23	Forest	3.32	1058.66	97.53
2123	J-1124	834.87	Forest	0.88	1060.36	97.56
7802	J-4121	835.58	Forest	0.28	1061.07	97.56
5643	J-3010	992.50	Lakes	0.20	1218.02	97.58
4008	J-2167	833.06	Forest	0.88	1058.67	97.61
5942	J-3181	835.52	Forest	0.48	1061.16	97.63
5941	J-3180	835.51	Forest	0.48	1061.16	97.63
1008	J-551	836.97	Forest	0.88	1062.63	97.63
325	J-171	833.08	Forest	0.08	1058.76	97.64
2109	J-1115	835.28	Forest	1.48	1061.04	97.68
4023	J-2173	832.05	Forest	1.48	1057.83	97.68
818	J-463	835.72	Forest	0.48	1061.63	97.74
2857	J-1548	832.24	Forest	0.68	1058.24	97.78
6877	J-3732	832.00	Forest	1.28	1058.03	97.79
6878	J-3733	832.00	Forest	0.48	1058.03	97.79
170	J-84	837.57	Forest	0.08	1063.61	97.79
324	J-170	832.70	Forest	0.08	1058.76	97.81
2767	J-1496	835.53	Forest	1.08	1061.60	97.81
5657	J-3019	838.02	Forest	1.28	1064.10	97.82
5126	J-2714	837.99	Forest	0.08	1064.10	97.83
429	J-238	836.77	Forest	0.08	1062.90	97.83
933	J-515	837.94	Forest	0.48	1064.10	97.85
5001	J-2643	837.44	Forest	1.68	1063.61	97.85
6448	J-3479	835.39	Forest	1.28	1061.63	97.88
1031	J-560	832.58	Forest	0.28	1058.91	97.92
5705	J-3047	833.99	Forest	0.08	1060.34	97.93
6818	J-3697	833.57	Forest	0.48	1059.96	97.95
2053	J-1087	991.65	Lakes	1.09	1218.03	97.95
6819	J-3698	833.57	Forest	0.48	1059.96	97.95
529	J-300	833.89	Forest	0.08	1060.33	97.97
5658	J-3020	837.59	Forest	0.68	1064.10	98.00
5174	J-2741	991.52	Lakes	0.37	1218.03	98.00
359	J-193	833.82	Forest	0.08	1060.33	98.00
5076	J-2687	832.37	Forest	0.28	1058.91	98.01
7369	J-3981	838.02	Forest	0.08	1064.62	98.04
3485	J-1899	831.19	Forest	0.08	1057.82	98.05
358	J-192	833.70	Forest	0.08	1060.34	98.05
2371	J-1272	837.85	Forest	0.88	1064.63	98.12
5649	J-3014	831.02	Forest	0.08	1057.80	98.12

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7126	J-3874	834.94	Forest	0.08	1061.85	98.17
5644	J-3011	991.12	Lakes	0.20	1218.02	98.17
7033	J-3822	835.99	Forest	0.08	1062.90	98.17
7127	J-3875	834.84	Forest	0.48	1061.85	98.21
3448	J-1877	832.92	Forest	0.08	1059.96	98.23
3385	J-1841	833.91	Forest	0.48	1060.97	98.24
1331	J-683	830.71	Forest	0.08	1057.80	98.25
3955	J-2143	836.98	Forest	0.68	1064.10	98.27
4161	J-2234	837.47	Forest	0.48	1064.62	98.28
3297	J-1794	837.37	Forest	0.08	1064.62	98.32
7284	J-3950	832.72	Forest	0.08	1060.01	98.34
2387	J-1282	837.32	Forest	0.68	1064.63	98.34
5477	J-2916	832.53	Forest	0.88	1059.96	98.40
6055	J-3245	834.15	Forest	1.08	1061.66	98.43
3880	J-2108	834.19	Forest	1.68	1061.72	98.44
5488	J-2922	837.03	Forest	0.68	1064.62	98.47
7148	J-3886	834.06	Forest	0.08	1061.66	98.47
7149	J-3887	834.03	Forest	0.88	1061.66	98.49
2122	J-1123	832.70	Forest	0.88	1060.36	98.50
1923	J-1004	833.17	Forest	0.88	1060.83	98.50
5629	J-3002	833.85	Forest	0.68	1061.61	98.54
6056	J-3246	833.82	Forest	0.48	1061.66	98.58
7283	J-3949	832.13	Forest	0.08	1060.01	98.59
2446	J-1311	832.00	Forest	0.88	1059.89	98.60
5352	J-2844	831.75	Forest	0.48	1059.72	98.63
5529	J-2945	830.73	Forest	0.28	1058.73	98.64
7258	J-3939	836.59	Forest	0.08	1064.63	98.66
7588	J-4057	833.74	Forest	0.48	1061.85	98.69
5630	J-3003	833.41	Forest	0.08	1061.61	98.73
7619	J-4069	829.74	Forest	0.88	1058.02	98.76
2524	J-1354	831.44	Forest	1.08	1059.72	98.77
2447	J-1312	831.60	Forest	2.29	1059.89	98.77
1069	J-577	833.27	Forest	0.08	1061.90	98.92
7548	J-4047	832.98	Forest	0.48	1061.61	98.92
7368	J-3980	835.90	Forest	0.08	1064.62	98.96
5206	J-2758	735.07	Forest	0.28	963.95	99.03
2052	J-1086	989.06	Lakes	0.29	1218.03	99.07
5530	J-2946	829.72	Forest	0.08	1058.73	99.08
2149	J-1141	832.53	Forest	0.88	1061.62	99.11
2538	J-1362	1093.83	Stewartsville	0.26	1322.91	99.11
3146	J-1703	734.85	Forest	0.48	963.95	99.12
3594	J-1961	830.56	Forest	0.88	1059.72	99.15
3563	J-1943	988.85	Lakes	1.81	1218.03	99.16
8506	J-4206	831.54	Forest	0.48	1060.82	99.20
7551	J-4048	832.32	Forest	0.88	1061.61	99.20
3145	J-1702	734.47	Forest	0.08	963.95	99.28
1715	J-870	829.28	Forest	0.68	1058.76	99.28
1554	J-772	988.55	Lakes	4.18	1218.07	99.30
7096	J-3857	832.36	Forest	0.08	1061.90	99.31
716	J-412	1093.41	Stewartsville	0.11	1322.98	99.32
661	J-381	830.18	Forest	0.08	1059.75	99.32
7953	J-4151	831.26	Forest	1.68	1060.84	99.33
3779	J-2059	734.14	Forest	4.50	963.93	99.42
874	J-491	834.75	Forest	0.48	1064.63	99.45
7155	J-3890	1093.10	Stewartsville	0.11	1322.98	99.45
1466	J-735	828.78	Forest	4.36	1058.66	99.46
6721	J-3640	988.14	Lakes	0.20	1218.07	99.48
6618	J-3579	827.85	Forest	1.08	1057.83	99.50
1808	J-930	832.00	Forest	0.48	1062.01	99.51
1807	J-929	832.00	Forest	0.88	1062.01	99.51
3336	J-1815	829.57	Forest	0.48	1059.73	99.58
5652	J-3016	988.09	Lakes	0.20	1218.27	99.59
2525	J-1355	829.53	Forest	0.08	1059.72	99.59
1890	J-983	831.40	Forest	0.88	1061.61	99.60
1852	J-958	829.49	Forest	0.08	1059.73	99.61
2108	J-1114	830.80	Forest	0.48	1061.04	99.62
1722	J-874	830.79	Forest	0.08	1061.04	99.62
5651	J-3015	988.00	Lakes	0.37	1218.27	99.63
4860	J-2561	829.40	Forest	0.08	1059.93	99.74
4022	J-2172	827.26	Forest	0.48	1057.83	99.76
6580	J-3557	829.42	Forest	0.08	1060.01	99.77
6777	J-3673	828.70	Forest	0.88	1059.31	99.77
4859	J-2560	829.16	Forest	0.28	1059.93	99.84
6776	J-3672	828.49	Forest	0.88	1059.31	99.86
6182	J-3321	832.65	Forest	0.48	1063.49	99.88
2892	J-1567	733.09	Forest	4.28	963.95	99.88
4596	J-2414	829.91	Forest	0.48	1060.84	99.91
5263	J-2792	1092.00	Stewartsville	0.11	1322.94	99.92
2564	J-1377	833.56	Forest	0.08	1064.62	99.97
5090	J-2694	828.61	Forest	0.48	1059.73	99.99
4595	J-2413	829.69	Forest	0.48	1060.84	100.01
2727	J-1472	829.69	Forest	0.48	1060.84	100.01
1196	J-626	1091.74	Stewartsville	0.11	1322.94	100.03
3357	J-1827	828.33	Forest	1.68	1059.73	100.11
2148	J-1140	830.21	Forest	0.08	1061.62	100.12
4692	J-2467	828.30	Forest	0.08	1059.75	100.14
5340	J-2837	830.01	Forest	0.48	1061.60	100.20
626	J-359	829.31	Forest	0.48	1060.97	100.23
2667	J-1436	830.27	Forest	0.08	1062.01	100.26
6723	J-3641	830.19	Forest	0.48	1062.01	100.30
6579	J-3556	827.98	Forest	0.08	1060.01	100.39
3599	J-1964	827.61	Forest	0.88	1059.72	100.42
1723	J-875	828.92	Forest	0.48	1061.04	100.43
4249	J-2264	827.82	Forest	1.68	1060.08	100.49
4170	J-2238	832.45	Forest	0.48	1064.81	100.53
1061	J-574	825.45	Forest	0.88	1057.81	100.53
7386	J-3988	829.60	Forest	0.48	1062.01	100.55
4473	J-2342	829.43	Forest	0.48	1061.85	100.56
6041	J-3236	829.22	Forest	0.48	1061.66	100.56

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3285	J-1787	827.63	Forest	1.68	1060.08	100.57
2009	J-1060	829.13	Forest	0.88	1061.60	100.58
2835	J-1536	826.07	Forest	1.48	1058.67	100.63
8521	J-4212	832.00	Forest	0.68	1064.60	100.64
4474	J-2343	829.23	Forest	0.08	1061.85	100.64
7608	J-4064	828.91	Forest	0.48	1061.62	100.68
3305	J-1798	828.84	Forest	0.08	1061.62	100.71
4650	J-2444	825.01	Forest	0.68	1057.81	100.72
6483	J-3499	831.78	Forest	0.08	1064.61	100.73
3345	J-1820	827.66	Forest	0.28	1060.53	100.75
6345	J-3419	828.70	Forest	0.48	1061.62	100.77
5290	J-2807	827.10	Forest	0.28	1060.08	100.80
3870	J-2102	828.63	Forest	0.88	1061.62	100.80
6260	J-3369	827.46	Forest	0.48	1060.45	100.80
6042	J-3237	828.65	Forest	0.88	1061.66	100.81
2994	J-1614	826.71	Forest	0.28	1059.78	100.84
4068	J-2193	826.56	Forest	0.08	1059.66	100.85
106	J-51	827.41	Forest	0.08	1060.53	100.86
6261	J-3370	827.13	Forest	1.08	1060.45	100.95
2156	J-1145	827.12	Forest	0.08	1060.45	100.95
5367	J-2853	826.73	Forest	0.08	1060.08	100.96
5665	J-3024	826.26	Forest	0.48	1059.66	100.98
5366	J-2852	826.56	Forest	0.08	1060.08	101.03
785	J-447	827.25	Forest	0.08	1060.82	101.05
4095	J-2206	829.70	Forest	1.28	1063.30	101.07
5162	J-2734	827.94	Forest	0.68	1061.62	101.10
1889	J-982	827.92	Forest	0.68	1061.62	101.11
2222	J-1186	828.08	Forest	0.08	1061.85	101.14
5163	J-2735	827.77	Forest	0.28	1061.62	101.18
5185	J-2747	825.85	Forest	0.88	1059.73	101.19
1846	J-954	826.17	Forest	0.08	1060.08	101.20
2120	J-1122	827.67	Forest	0.68	1061.61	101.21
1271	J-659	984.52	Lakes	0.20	1218.61	101.28
6229	J-3350	829.19	Forest	0.08	1063.30	101.29
341	J-181	1088.75	Stewartsville	0.11	1322.91	101.31
6537	J-3530	827.66	Forest	0.48	1061.85	101.32
1853	J-959	825.45	Forest	2.49	1059.68	101.34
340	J-180	1088.65	Stewartsville	0.11	1322.91	101.36
5719	J-3055	825.72	Forest	0.48	1060.06	101.39
5184	J-2746	825.37	Forest	0.68	1059.73	101.40
6422	J-3464	826.20	Forest	0.28	1060.62	101.42
2832	J-1534	825.28	Forest	1.28	1059.72	101.43
5027	J-2658	829.34	Forest	0.48	1064.07	101.55
901	J-504	829.32	Forest	0.08	1064.07	101.57
5872	J-3142	983.79	Lakes	0.20	1218.61	101.60
6228	J-3349	828.47	Forest	1.48	1063.30	101.60
1333	J-684	825.14	Forest	0.48	1060.06	101.64
5416	J-2881	825.07	Forest	0.08	1060.02	101.65
6484	J-3500	829.57	Forest	0.08	1064.61	101.69
2572	J-1381	825.95	Forest	0.08	1061.05	101.72
6682	J-3617	822.81	Forest	0.88	1057.93	101.72
117	J-56	825.48	Forest	0.08	1060.62	101.73
3520	J-1919	826.33	Forest	0.08	1061.61	101.79
4255	J-2265	826.17	Forest	1.48	1061.64	101.88
6424	J-3465	825.44	Forest	0.08	1061.05	101.94
6017	J-3222	825.80	Forest	0.08	1061.61	102.02
6538	J-3531	825.99	Forest	0.48	1061.85	102.05
5816	J-3111	825.54	Forest	0.48	1061.54	102.11
7768	J-4111	824.00	Forest	0.88	1060.08	102.14
2645	J-1424	821.82	Forest	0.48	1057.93	102.15
6168	J-3313	824.00	Forest	1.68	1060.12	102.16
6169	J-3314	824.00	Forest	0.28	1060.12	102.16
1614	J-806	824.90	Forest	0.68	1061.05	102.17
4374	J-2303	821.58	Forest	0.08	1057.80	102.20
980	J-537	825.44	Forest	0.28	1061.94	102.32
6382	J-3441	823.53	Forest	0.28	1060.09	102.35
1192	J-624	828.00	Forest	0.08	1064.63	102.38
7202	J-3911	828.00	Forest	0.28	1064.63	102.38
2476	J-1328	824.37	Forest	0.68	1061.05	102.40
5815	J-3110	824.82	Forest	1.28	1061.54	102.42
4786	J-2519	824.33	Forest	0.08	1061.09	102.43
2197	J-1171	825.05	Forest	0.68	1061.85	102.45
7049	J-3831	823.04	Forest	1.08	1059.85	102.46
6381	J-3440	823.26	Forest	0.48	1060.09	102.46
1613	J-805	824.19	Forest	0.08	1061.05	102.48
5566	J-2966	820.93	Forest	0.08	1057.80	102.48
7004	J-3806	822.84	Forest	0.08	1059.78	102.52
2893	J-1568	726.95	Forest	0.48	963.95	102.54
4787	J-2520	824.02	Forest	0.28	1061.09	102.57
5567	J-2967	820.67	Forest	0.08	1057.80	102.59
2402	J-1290	827.42	Forest	0.28	1064.63	102.63
2684	J-1446	820.53	Forest	0.48	1057.79	102.65
3410	J-1855	824.57	Forest	0.08	1061.94	102.70
2119	J-1121	824.23	Forest	0.88	1061.62	102.71
4688	J-2465	824.48	Forest	0.48	1061.94	102.74
4380	J-2306	822.53	Forest	1.48	1060.01	102.75
2435	J-1305	823.55	Forest	0.08	1061.05	102.75
1177	J-617	821.26	Forest	0.28	1058.76	102.75
5895	J-3154	824.04	Forest	0.48	1061.62	102.79
3403	J-1851	823.85	Forest	0.08	1061.62	102.87
4540	J-2380	820.93	Forest	2.69	1058.76	102.90
154	J-75	825.26	Forest	1.48	1063.10	102.90
7135	J-3879	819.89	Forest	0.08	1057.83	102.94
7048	J-3830	821.90	Forest	0.88	1059.85	102.95
4541	J-2381	820.67	Forest	0.28	1058.76	103.01
4575	J-2401	819.70	Forest	0.08	1057.83	103.02
7454	J-4011	823.06	Forest	0.48	1061.22	103.04
4576	J-2402	819.63	Forest	0.48	1057.83	103.06
1141	J-603	820.39	Forest	0.08	1058.66	103.09

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2155	J-1144	822.17	Forest	0.68	1060.45	103.09
7473	J-4018	821.49	Forest	0.68	1059.96	103.17
3707	J-2022	819.26	Forest	0.68	1057.81	103.21
7629	J-4071	979.43	Lakes	0.20	1218.02	103.23
4667	J-2453	820.00	Forest	2.09	1058.75	103.29
4668	J-2454	820.00	Forest	0.88	1058.75	103.29
6872	J-3729	822.38	Forest	0.28	1061.15	103.30
7350	J-3976	819.11	Forest	0.08	1057.87	103.30
3996	J-2161	822.94	Forest	2.09	1061.72	103.31
6873	J-3730	822.35	Forest	0.08	1061.15	103.32
1593	J-792	822.18	Forest	0.08	1061.05	103.34
6176	J-3318	821.08	Forest	0.48	1059.95	103.35
8088	J-4167	821.93	Forest	0.88	1060.83	103.36
1190	J-623	1084.00	Stewartsville	0.11	1322.93	103.38
3840	J-2088	821.89	Forest	0.88	1060.84	103.38
5660	J-3021	822.23	Forest	0.68	1061.21	103.39
5867	J-3139	818.79	Forest	0.08	1057.80	103.41
1901	J-990	821.76	Forest	0.88	1060.82	103.43
6760	J-3663	818.80	Forest	0.08	1057.87	103.43
1071	J-578	820.93	Forest	0.28	1060.02	103.44
1594	J-793	821.87	Forest	0.88	1061.05	103.48
7474	J-4019	820.70	Forest	0.48	1059.96	103.52
5661	J-3022	821.72	Forest	1.48	1061.21	103.62
6440	J-3475	978.82	Lakes	0.20	1218.32	103.62
2790	J-1510	818.16	Forest	1.08	1057.81	103.68
4619	J-2427	1083.27	Stewartsville	3.28	1322.91	103.68
6245	J-3360	824.23	Forest	1.08	1063.91	103.69
6759	J-3662	818.17	Forest	0.48	1057.87	103.71
586	J-335	1083.16	Stewartsville	0.11	1322.91	103.73
3412	J-1856	819.92	Forest	0.88	1059.72	103.75
1882	J-978	821.03	Forest	0.08	1060.84	103.76
2536	J-1361	821.23	Forest	0.08	1061.05	103.76
3641	J-1985	821.74	Forest	0.48	1061.60	103.77
4505	J-2360	818.89	Forest	1.68	1058.76	103.78
4379	J-2305	820.09	Forest	2.09	1060.01	103.80
1591	J-791	824.69	Forest	0.08	1064.62	103.81
6439	J-3474	978.29	Lakes	0.20	1218.32	103.85
875	J-492	824.52	Forest	0.08	1064.63	103.88
4506	J-2361	818.62	Forest	3.09	1058.76	103.90
3413	J-1857	819.53	Forest	0.68	1059.72	103.92
6246	J-3361	823.47	Forest	0.08	1063.91	104.03
7932	J-4145	819.51	Forest	0.08	1059.95	104.03
1171	J-615	977.37	Lakes	0.81	1217.86	104.05
5583	J-2975	824.13	Forest	0.28	1064.63	104.05
2928	J-1584	821.10	Forest	1.28	1061.62	104.06
4894	J-2581	1082.41	Stewartsville	0.11	1322.93	104.06
1590	J-790	823.77	Forest	0.28	1064.62	104.21
2204	J-1175	820.61	Forest	0.88	1061.61	104.27
1810	J-931	820.52	Forest	0.48	1061.62	104.31
6218	J-3343	820.42	Forest	0.48	1061.60	104.35
4751	J-2500	817.98	Forest	0.08	1059.20	104.37
4132	J-2221	822.85	Forest	1.08	1064.10	104.38
988	J-542	817.90	Forest	0.08	1059.20	104.40
4882	J-2573	820.31	Forest	0.08	1061.62	104.40
799	J-454	1081.58	Stewartsville	0.40	1322.91	104.41
4104	J-2209	818.32	Forest	0.28	1059.66	104.41
7384	J-3987	976.65	Lakes	0.29	1218.03	104.43
4464	J-2337	823.23	Forest	0.48	1064.63	104.44
5546	J-2954	1081.52	Stewartsville	0.11	1322.91	104.44
7416	J-3998	816.46	Forest	0.48	1057.87	104.45
4883	J-2574	820.17	Forest	0.88	1061.62	104.46
1583	J-786	820.37	Forest	0.28	1061.84	104.47
4299	J-2282	817.26	Forest	2.49	1058.75	104.48
6966	J-3784	819.39	Forest	0.28	1060.88	104.48
2902	J-1572	823.02	Forest	0.08	1064.63	104.53
6932	J-3765	976.25	Lakes	0.20	1217.86	104.53
1585	J-787	820.23	Forest	0.28	1061.84	104.54
7639	J-4075	820.08	Forest	0.08	1061.72	104.55
6861	J-3722	816.00	Forest	0.08	1057.77	104.60
7417	J-3999	816.00	Forest	0.08	1057.87	104.65
190	J-91	820.96	Forest	0.08	1062.84	104.65
4154	J-2230	818.08	Forest	0.48	1059.96	104.65
5771	J-3085	818.09	Forest	0.48	1060.01	104.67
5310	J-2819	816.79	Forest	0.68	1058.75	104.68
1582	J-785	819.85	Forest	0.08	1061.84	104.70
1652	J-829	819.82	Forest	0.28	1061.84	104.71
1602	J-798	819.54	Forest	0.08	1061.84	104.83
6175	J-3317	817.56	Forest	1.08	1059.95	104.87
7812	J-4123	818.80	Forest	0.48	1061.22	104.88
1007	J-550	820.29	Forest	0.48	1062.76	104.90
6464	J-3488	976.00	Lakes	0.20	1218.58	104.95
3633	J-1981	818.88	Forest	0.88	1061.72	105.07
1410	J-703	819.77	Forest	0.08	1062.76	105.13
4532	J-2376	814.76	Forest	0.08	1057.81	105.16
4598	J-2415	817.67	Forest	1.08	1060.84	105.21
3558	J-1940	814.90	Forest	0.08	1058.09	105.22
5005	J-2645	814.88	Forest	0.48	1058.09	105.23
1764	J-902	818.18	Forest	0.88	1061.61	105.32
4599	J-2416	817.37	Forest	1.28	1060.84	105.34
1701	J-861	817.58	Forest	0.68	1061.04	105.34
6862	J-3723	814.27	Forest	0.28	1057.77	105.35
2771	J-1498	814.29	Forest	1.28	1057.81	105.36
5674	J-3029	817.32	Forest	0.88	1060.86	105.37
1358	J-689	974.91	Lakes	0.20	1218.58	105.42
5922	J-3169	974.39	Lakes	0.20	1218.23	105.50
7677	J-4085	820.00	Forest	0.48	1063.91	105.53
4384	J-2308	816.00	Forest	0.08	1059.95	105.55
5820	J-3113	818.89	Forest	0.88	1062.84	105.55
5272	J-2797	817.01	Forest	0.48	1061.11	105.61

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1570	J-778	974.01	Lakes	0.20	1218.23	105.66
2586	J-1389	817.22	Forest	1.28	1061.60	105.73
5271	J-2796	816.71	Forest	0.88	1061.11	105.74
2395	J-1286	820.17	Forest	0.08	1064.63	105.76
5025	J-2657	973.40	Lakes	0.63	1218.03	105.84
5024	J-2656	973.35	Lakes	0.29	1218.03	105.86
1772	J-907	816.90	Forest	0.08	1061.62	105.88
7035	J-3823	815.11	Forest	0.08	1059.85	105.89
7426	J-4002	816.06	Forest	1.68	1060.83	105.90
4002	J-2164	816.08	Forest	0.88	1060.86	105.90
7346	J-3974	813.87	Forest	0.48	1058.74	105.94
1989	J-1047	819.68	Forest	0.08	1064.62	105.97
3119	J-1686	812.75	Forest	0.08	1057.77	106.01
2945	J-1592	814.44	Forest	0.68	1059.53	106.04
1847	J-955	814.95	Forest	0.68	1060.08	106.06
2397	J-1287	819.45	Forest	0.08	1064.63	106.08
5234	J-2775	812.42	Forest	0.28	1057.77	106.15
4607	J-2420	812.43	Forest	0.08	1057.81	106.17
822	J-465	815.46	Forest	0.28	1060.88	106.18
3120	J-1687	812.35	Forest	0.08	1057.77	106.18
6996	J-3801	816.14	Forest	0.08	1061.62	106.20
1700	J-860	815.53	Forest	0.08	1061.05	106.22
2400	J-1289	819.08	Forest	0.08	1064.63	106.24
2975	J-1604	816.39	Forest	1.08	1061.94	106.24
6093	J-3269	972.46	Lakes	0.37	1218.03	106.25
5743	J-3069	816.13	Forest	0.08	1061.72	106.26
1085	J-583	813.37	Forest	0.08	1059.01	106.28
6997	J-3802	815.90	Forest	0.48	1061.62	106.31
223	J-105	1077.20	Stewartsville	0.11	1322.91	106.31
3634	J-1982	816.00	Forest	1.88	1061.72	106.31
222	J-104	1077.17	Stewartsville	0.11	1322.91	106.32
4855	J-2558	813.16	Forest	0.28	1059.01	106.37
7345	J-3973	812.87	Forest	0.28	1058.74	106.38
3708	J-2023	811.82	Forest	1.88	1057.81	106.43
2078	J-1098	972.01	Lakes	0.20	1218.03	106.44
7169	J-3896	818.39	Forest	0.28	1064.63	106.53
4925	J-2598	813.69	Forest	0.08	1059.94	106.54
4926	J-2599	813.67	Forest	0.08	1059.94	106.55
3150	J-1705	818.33	Forest	0.08	1064.63	106.56
1657	J-832	814.65	Forest	0.88	1061.02	106.59
7872	J-4135	814.67	Forest	0.68	1061.10	106.62
1767	J-904	815.38	Forest	0.48	1061.84	106.63
4634	J-2436	814.34	Forest	0.68	1060.83	106.65
1966	J-1032	817.82	Forest	0.88	1064.63	106.78
5927	J-3172	812.87	Forest	0.28	1059.95	106.90
64	J-24	815.00	Forest	0.68	1062.10	106.91
4945	J-2610	814.92	Forest	0.08	1062.10	106.94
5199	J-2754	817.35	Forest	0.08	1064.63	106.98
7036	J-3824	812.56	Forest	0.68	1059.85	106.99
4633	J-2435	813.50	Forest	0.48	1060.83	107.01
1194	J-625	971.03	Lakes	0.29	1218.42	107.03
6733	J-3647	971.01	Lakes	0.20	1218.42	107.04
2103	J-1111	813.64	Forest	0.48	1061.05	107.04
1277	J-663	817.18	Forest	0.28	1064.63	107.06
3168	J-1715	812.44	Forest	0.48	1059.94	107.08
3117	J-1685	812.38	Forest	1.08	1059.95	107.11
5920	J-3168	812.87	Forest	0.88	1060.45	107.12
7075	J-3846	813.31	Forest	0.08	1061.07	107.20
3769	J-2054	811.88	Forest	1.88	1059.73	107.23
2782	J-1505	812.07	Forest	0.68	1059.95	107.24
6755	J-3660	812.03	Forest	0.88	1059.94	107.26
2783	J-1506	812.00	Forest	1.08	1059.95	107.28
1608	J-802	813.04	Forest	0.68	1061.02	107.29
8538	J-4219	816.62	Forest	0.48	1064.63	107.30
1831	J-944	811.91	Forest	0.08	1059.94	107.31
47	J-13	814.02	Forest	0.68	1062.10	107.33
6828	J-3703	809.64	Forest	0.68	1057.80	107.37
7074	J-3845	812.76	Forest	0.08	1061.07	107.43
1512	J-754	812.37	Forest	0.48	1060.74	107.46
6825	J-3701	810.38	Forest	0.08	1058.75	107.46
1600	J-797	812.65	Forest	0.68	1061.02	107.46
1765	J-903	813.20	Forest	0.88	1061.61	107.47
1658	J-833	812.52	Forest	0.88	1061.02	107.51
1692	J-855	812.43	Forest	1.88	1061.03	107.55
1761	J-900	813.24	Forest	0.08	1061.85	107.56
6829	J-3704	808.95	Forest	0.28	1057.80	107.67
3557	J-1939	809.23	Forest	0.08	1058.09	107.67
4615	J-2425	811.98	Forest	0.88	1060.85	107.67
6171	J-3315	811.85	Forest	0.08	1060.74	107.68
7553	J-4049	812.15	Forest	0.68	1061.10	107.71
1865	J-967	812.63	Forest	0.68	1061.61	107.72
1688	J-852	812.04	Forest	0.08	1061.02	107.72
1599	J-796	812.00	Forest	0.08	1061.02	107.74
7124	J-3873	812.00	Forest	0.08	1061.02	107.74
1607	J-801	812.00	Forest	0.08	1061.02	107.74
5919	J-3167	811.41	Forest	1.08	1060.45	107.75
4614	J-2424	811.78	Forest	0.28	1060.85	107.76
6826	J-3702	809.65	Forest	0.08	1058.75	107.78
2514	J-1348	811.90	Forest	0.08	1061.02	107.79
1881	J-977	811.67	Forest	1.28	1060.83	107.80
7606	J-4063	808.33	Forest	0.48	1057.81	107.94
5739	J-3067	811.28	Forest	0.48	1060.85	107.98
4833	J-2545	811.42	Forest	0.08	1061.02	107.99
7359	J-3978	811.20	Forest	0.48	1060.85	108.01
7018	J-3814	814.95	Forest	0.08	1064.62	108.02
2200	J-1173	808.00	Forest	0.48	1057.76	108.06
5345	J-2840	808.00	Forest	0.48	1057.76	108.06
4834	J-2546	811.25	Forest	0.08	1061.02	108.07
4256	J-2266	811.84	Forest	2.29	1061.64	108.08

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1173	J-616	811.84	Forest	0.08	1061.64	108.08
426	J-236	811.83	Forest	0.08	1061.64	108.08
4902	J-2585	811.79	Forest	0.48	1061.64	108.10
6476	J-3495	807.77	Forest	0.88	1057.76	108.16
2541	J-1364	807.69	Forest	2.49	1057.78	108.20
6477	J-3496	807.65	Forest	0.48	1057.76	108.21
1682	J-849	810.87	Forest	0.88	1061.02	108.23
5737	J-3066	810.61	Forest	0.88	1060.82	108.25
3841	J-2089	810.60	Forest	0.88	1060.85	108.27
427	J-237	811.37	Forest	0.48	1061.64	108.28
5736	J-3065	810.55	Forest	0.88	1060.82	108.28
8481	J-4192	810.78	Forest	0.68	1061.07	108.29
1774	J-908	811.29	Forest	0.28	1061.61	108.30
3770	J-2055	809.32	Forest	1.68	1059.73	108.34
7795	J-4119	812.95	Forest	1.28	1063.38	108.35
5274	J-2798	807.34	Forest	0.28	1057.80	108.36
1377	J-692	807.33	Forest	0.28	1057.80	108.37
3915	J-2125	809.46	Forest	1.68	1059.95	108.37
5502	J-2929	807.30	Forest	0.28	1057.80	108.38
2644	J-1423	807.25	Forest	0.88	1057.93	108.45
8036	J-4160	813.94	Forest	0.08	1064.62	108.46
7465	J-4016	810.23	Forest	0.08	1061.05	108.52
2881	J-1561	813.79	Forest	0.08	1064.62	108.52
624	J-358	1072.06	Stewartsville	0.11	1322.92	108.53
1775	J-909	810.71	Forest	0.88	1061.60	108.55
5947	J-3184	966.36	Lakes	0.29	1217.30	108.57
1188	J-622	806.83	Forest	0.88	1057.80	108.58
6762	J-3664	812.00	Forest	1.08	1062.98	108.58
5014	J-2650	808.71	Forest	2.29	1059.73	108.60
1864	J-966	810.49	Forest	1.48	1061.61	108.65
8022	J-4159	810.35	Forest	1.08	1061.66	108.73
6991	J-3798	810.29	Forest	1.68	1061.64	108.75
1132	J-600	965.89	Lakes	2.24	1217.30	108.77
1683	J-849	809.58	Forest	0.08	1061.02	108.78
582	J-333	810.14	Forest	0.48	1061.64	108.81
623	J-357	1071.40	Stewartsville	0.26	1322.92	108.82
2929	J-1585	809.89	Forest	1.48	1061.62	108.91
1689	J-853	809.22	Forest	0.88	1061.02	108.94
5067	J-2682	812.28	Forest	0.08	1064.09	108.95
1691	J-854	809.16	Forest	0.08	1061.04	108.98
1759	J-899	807.82	Forest	0.68	1059.72	108.99
2540	J-1363	805.78	Forest	0.28	1057.78	109.03
1013	J-553	812.08	Forest	0.28	1064.09	109.03
7641	J-4076	809.04	Forest	0.08	1061.07	109.04
6993	J-3799	809.35	Forest	2.09	1061.42	109.06
6347	J-3420	807.50	Forest	0.68	1059.72	109.13
1604	J-799	808.81	Forest	0.08	1061.04	109.13
4078	J-2198	811.81	Forest	0.28	1064.10	109.15
7019	J-3815	812.32	Forest	0.48	1064.62	109.16
6795	J-3684	808.73	Forest	0.08	1061.04	109.17
5619	J-2996	805.38	Forest	0.08	1057.78	109.20
5561	J-2963	812.22	Forest	0.48	1064.62	109.20
3758	J-2049	809.13	Forest	0.28	1061.72	109.28
7064	J-3839	811.48	Forest	0.08	1064.07	109.29
180	J-88	810.37	Forest	0.08	1062.98	109.29
5813	J-3109	811.41	Forest	0.48	1064.10	109.33
6831	J-3705	808.12	Forest	0.08	1060.83	109.33
6509	J-3514	1070.25	Stewartsville	0.11	1322.97	109.34
282	J-144	805.67	Forest	0.28	1058.66	109.46
6765	J-3666	807.05	Forest	0.48	1060.08	109.48
7051	J-3832	806.80	Forest	2.29	1059.85	109.48
7831	J-4129	806.79	Forest	0.68	1059.85	109.49
6199	J-3331	807.66	Forest	1.08	1060.83	109.54
2104	J-1112	807.87	Forest	0.88	1061.05	109.54
1758	J-898	806.54	Forest	1.28	1059.72	109.54
650	J-374	810.87	Forest	0.08	1064.07	109.55
1605	J-800	807.74	Forest	0.68	1061.04	109.59
6994	J-3800	808.05	Forest	0.08	1061.42	109.62
2974	J-1603	808.54	Forest	1.08	1061.94	109.63
7000	J-3804	809.88	Forest	0.08	1063.38	109.68
281	J-143	805.12	Forest	0.28	1058.66	109.69
4964	J-2621	804.19	Forest	0.28	1057.76	109.71
7948	J-4149	807.54	Forest	0.28	1061.12	109.71
4911	J-2590	1069.28	Stewartsville	0.11	1322.91	109.74
5560	J-2962	810.98	Forest	0.08	1064.62	109.74
783	J-446	807.25	Forest	0.08	1060.93	109.76
4048	J-2185	807.91	Forest	0.88	1061.61	109.76
8479	J-4191	807.41	Forest	0.28	1061.12	109.77
7227	J-3924	804.81	Forest	0.28	1058.64	109.82
1098	J-589	1068.97	Stewartsville	0.26	1322.91	109.87
1793	J-920	807.65	Forest	0.48	1061.60	109.87
7688	J-4087	806.05	Forest	1.08	1060.08	109.91
6764	J-3665	806.01	Forest	0.88	1060.08	109.92
6200	J-3332	806.72	Forest	0.88	1060.83	109.94
4850	J-2555	804.53	Forest	0.28	1058.66	109.95
6678	J-3615	810.46	Forest	0.68	1064.60	109.96
375	J-203	804.46	Forest	0.08	1058.66	109.98
4124	J-2217	807.44	Forest	1.88	1061.66	109.99
2706	J-1460	809.75	Forest	0.28	1064.07	110.04
993	J-544	1068.63	Stewartsville	0.11	1322.97	110.04
6620	J-3580	804.26	Forest	0.08	1058.64	110.06
6677	J-3614	810.22	Forest	0.88	1064.60	110.06
6999	J-3803	808.91	Forest	0.68	1063.38	110.10
5799	J-3101	804.94	Forest	0.08	1059.53	110.15
4965	J-2622	803.08	Forest	0.48	1057.76	110.19
6796	J-3685	806.27	Forest	0.08	1061.04	110.23
792	J-451	805.97	Forest	0.28	1060.83	110.26
5800	J-3102	804.62	Forest	0.68	1059.53	110.29
3988	J-2157	802.79	Forest	0.88	1057.76	110.31

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6696	J-3626	806.55	Forest	1.88	1061.61	110.35
6695	J-3625	806.40	Forest	0.08	1061.61	110.42
6621	J-3581	803.31	Forest	0.08	1058.64	110.47
6405	J-3454	806.43	Forest	0.28	1061.85	110.51
6312	J-3399	805.35	Forest	0.08	1060.91	110.57
6624	J-3583	804.23	Forest	0.48	1060.08	110.70
7827	J-4127	808.72	Forest	0.68	1064.62	110.72
4077	J-2197	808.18	Forest	0.28	1064.10	110.73
5514	J-2936	804.86	Forest	0.28	1060.84	110.75
7052	J-3833	803.81	Forest	0.68	1059.85	110.78
4042	J-2181	804.80	Forest	1.48	1060.91	110.81
5513	J-2935	804.40	Forest	0.88	1060.84	110.95
2391	J-1284	808.00	Forest	0.08	1064.63	111.03
2774	J-1500	808.00	Forest	0.28	1064.63	111.03
7402	J-3994	801.93	Forest	0.28	1058.64	111.07
1762	J-901	805.03	Forest	0.88	1061.84	111.11
6406	J-3455	805.03	Forest	0.48	1061.85	111.11
4522	J-2370	807.78	Forest	0.08	1064.63	111.13
6623	J-3582	803.22	Forest	0.88	1060.08	111.13
6629	J-3586	802.14	Forest	0.48	1059.22	111.23
2199	J-1172	800.67	Forest	0.68	1057.76	111.23
2379	J-1277	807.45	Forest	0.48	1064.63	111.27
6630	J-3587	801.98	Forest	0.68	1059.22	111.30
7452	J-4010	803.46	Forest	0.08	1060.84	111.36
1784	J-914	802.40	Forest	0.48	1060.08	111.49
2985	J-1609	943.54	Fox_Run	1.28	1201.27	111.51
983	J-539	800.01	Forest	0.48	1057.82	111.54
2906	J-1574	803.02	Forest	1.08	1060.99	111.61
5281	J-2802	960.00	Lakes	1.41	1218.03	111.64
5282	J-2803	960.00	Lakes	0.81	1218.03	111.64
7084	J-3851	958.94	Lakes	0.20	1217.08	111.68
1610	J-803	806.33	Forest	1.08	1064.62	111.75
6039	J-3235	801.77	Forest	0.68	1060.20	111.81
4326	J-2288	802.40	Forest	1.48	1060.84	111.81
6557	J-3543	799.43	Forest	0.48	1058.02	111.88
6972	J-3787	802.20	Forest	0.28	1060.86	111.91
8509	J-4207	804.19	Forest	0.68	1062.90	111.93
6038	J-3234	801.35	Forest	0.48	1060.20	111.99
1611	J-804	805.70	Forest	0.08	1064.62	112.02
6325	J-3407	798.75	Forest	1.48	1057.79	112.08
5707	J-3048	805.52	Forest	0.48	1064.62	112.10
987	J-541	800.00	Forest	0.08	1059.12	112.11
5058	J-2677	800.00	Forest	0.08	1059.12	112.11
7146	J-3885	799.58	Forest	1.08	1058.74	112.13
2779	J-1503	801.72	Forest	1.28	1060.96	112.16
3099	J-1673	804.00	Forest	0.48	1063.30	112.19
3100	J-1674	804.00	Forest	0.48	1063.30	112.19
6410	J-3457	804.00	Forest	0.48	1063.30	112.19
4549	J-2386	799.30	Forest	0.48	1058.74	112.25
6556	J-3542	798.57	Forest	0.68	1058.02	112.25
7193	J-3906	958.74	Lakes	0.20	1218.20	112.26
7194	J-3907	958.73	Lakes	0.20	1218.20	112.26
1307	J-677	959.08	Lakes	0.20	1218.61	112.29
823	J-466	801.30	Forest	0.08	1060.86	112.30
1755	J-896	798.20	Forest	0.88	1057.81	112.32
5995	J-3210	958.93	Lakes	0.20	1218.61	112.35
6324	J-3406	798.04	Forest	0.48	1057.79	112.38
881	J-495	1063.14	Stewartsville	0.11	1322.93	112.40
3213	J-1742	958.34	Lakes	0.20	1218.15	112.41
7595	J-4059	800.33	Forest	0.88	1060.21	112.44
4548	J-2385	798.86	Forest	0.28	1058.74	112.44
5134	J-2718	804.06	Forest	0.28	1064.07	112.50
7821	J-4126	798.66	Forest	0.48	1058.74	112.53
6444	J-3477	958.05	Lakes	0.20	1218.15	112.53
2487	J-1334	797.65	Forest	0.08	1057.79	112.55
3214	J-1743	957.99	Lakes	0.20	1218.15	112.56
7732	J-4102	800.65	Forest	0.28	1060.82	112.56
1626	J-814	800.83	Forest	0.68	1061.01	112.57
2773	J-1499	804.40	Forest	0.88	1064.63	112.59
4889	J-2578	799.67	Forest	0.28	1059.93	112.61
1625	J-813	800.72	Forest	0.08	1061.01	112.61
651	J-375	803.72	Forest	0.28	1064.07	112.64
4146	J-2227	803.01	Forest	0.48	1063.38	112.65
6319	J-3403	797.33	Forest	0.28	1057.79	112.69
4888	J-2577	799.47	Forest	0.08	1059.93	112.69
4988	J-2635	802.84	Forest	0.88	1063.38	112.72
4987	J-2634	802.82	Forest	0.48	1063.38	112.73
3307	J-1799	957.55	Lakes	0.20	1218.15	112.75
6226	J-3348	957.47	Lakes	0.20	1218.21	112.81
6403	J-3453	957.54	Lakes	0.20	1218.47	112.89
1904	J-992	798.40	Forest	0.48	1059.53	112.98
8060	J-4162	956.87	Lakes	0.20	1218.02	112.99
5726	J-3059	802.05	Forest	0.08	1063.38	113.07
3913	J-2124	956.75	Lakes	0.72	1218.15	113.09
1832	J-945	798.54	Forest	0.48	1059.94	113.10
1131	J-599	956.00	Lakes	0.20	1217.47	113.13
6225	J-3347	956.68	Lakes	0.20	1218.21	113.15
2599	J-1397	1061.38	Stewartsville	2.34	1322.92	113.16
7658	J-4080	801.76	Forest	0.08	1063.38	113.19
6394	J-3448	799.99	Forest	0.08	1061.62	113.19
7071	J-3843	796.76	Forest	0.68	1058.43	113.21
6090	J-3267	956.57	Lakes	0.20	1218.29	113.23
6744	J-3653	796.00	Forest	1.08	1057.76	113.25
6745	J-3654	796.00	Forest	0.28	1057.76	113.25
7514	J-4033	796.00	Forest	0.48	1057.76	113.25
3026	J-1627	798.10	Forest	1.48	1059.87	113.25
1794	J-921	799.81	Forest	0.88	1061.59	113.26
2010	J-1061	799.72	Forest	1.28	1061.57	113.29
3831	J-2084	798.07	Forest	0.88	1059.95	113.31

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1108	J-593	1061.04	Stewartsville	0.11	1322.94	113.31
1240	J-648	956.44	Lakes	0.20	1218.47	113.37
6880	J-3734	1060.67	Stewartsville	1.99	1322.92	113.46
5245	J-2782	955.18	Lakes	0.20	1217.47	113.48
7072	J-3844	796.12	Forest	1.08	1058.43	113.49
2285	J-1223	799.53	Forest	1.88	1061.85	113.49
6091	J-3268	955.96	Lakes	0.20	1218.29	113.50
512	J-289	955.64	Lakes	0.20	1218.03	113.52
2488	J-1335	795.39	Forest	0.68	1057.79	113.53
4898	J-2583	1060.52	Stewartsville	0.11	1322.94	113.54
4335	J-2291	799.24	Forest	1.48	1061.72	113.56
3793	J-2066	799.03	Forest	0.88	1061.62	113.61
1201	J-629	955.27	Lakes	0.20	1217.87	113.61
4779	J-2515	797.25	Forest	1.08	1060.08	113.71
8679	J-4225	800.00	Forest	0.00	1062.93	113.76
4780	J-2516	796.94	Forest	0.48	1060.08	113.85
4208	J-2251	796.94	Forest	0.88	1060.08	113.85
2687	J-1448	798.42	Forest	1.08	1061.63	113.88
8415	J-4177	796.70	Forest	0.68	1059.95	113.90
6785	J-3678	794.43	Forest	0.28	1057.83	113.96
6251	J-3364	954.46	Lakes	0.20	1217.87	113.96
6053	J-3244	796.72	Forest	1.88	1060.16	113.98
5727	J-3060	799.86	Forest	0.48	1063.38	114.01
3905	J-2120	799.84	Forest	0.48	1063.38	114.02
5646	J-3012	795.79	Forest	0.48	1059.53	114.11
5084	J-2691	800.86	Forest	0.08	1064.61	114.11
5647	J-3013	795.66	Forest	0.08	1059.53	114.16
1785	J-915	796.13	Forest	0.88	1060.08	114.20
3480	J-1896	954.08	Lakes	1.32	1218.03	114.20
2697	J-1454	796.88	Forest	0.88	1060.83	114.20
1707	J-865	797.01	Forest	1.28	1061.01	114.22
6052	J-3243	796.13	Forest	0.48	1060.16	114.24
6714	J-3636	795.91	Forest	0.48	1059.96	114.24
6713	J-3635	795.88	Forest	0.88	1059.96	114.25
7713	J-4096	796.33	Forest	0.08	1060.45	114.27
3051	J-1643	953.49	Lakes	0.89	1218.03	114.45
749	J-429	953.72	Lakes	0.20	1218.35	114.49
3050	J-1642	953.37	Lakes	0.20	1218.03	114.50
2840	J-1539	796.90	Forest	0.88	1061.62	114.53
6784	J-3677	793.07	Forest	0.68	1057.83	114.55
1037	J-563	799.84	Forest	0.48	1064.61	114.55
32	J-3	799.82	Forest	0.28	1064.61	114.56
5406	J-2876	953.14	Lakes	0.20	1218.03	114.60
1685	J-850	799.15	Forest	1.28	1064.05	114.61
6233	J-3352	953.16	Lakes	0.20	1218.23	114.68
925	J-512	952.00	Lakes	0.20	1217.08	114.69
2378	J-1276	799.55	Forest	0.08	1064.63	114.69
7983	J-4155	796.49	Forest	1.28	1061.62	114.71
3871	J-2103	796.37	Forest	0.48	1061.62	114.76
6836	J-3708	796.19	Forest	1.48	1061.61	114.84
6234	J-3353	952.73	Lakes	0.20	1218.23	114.87
1837	J-948	799.07	Forest	0.28	1064.60	114.89
2554	J-1372	796.39	Forest	0.48	1061.93	114.89
6389	J-3445	952.58	Lakes	0.20	1218.15	114.90
3363	J-1831	952.46	Lakes	1.15	1218.03	114.90
4163	J-2235	795.18	Forest	0.48	1060.86	114.95
7476	J-4020	1057.15	Stewartsville	3.28	1322.91	114.98
61	J-22	797.10	Forest	0.08	1062.90	115.00
4664	J-2451	952.24	Lakes	0.20	1218.03	115.00
6717	J-3638	796.08	Forest	0.48	1061.95	115.03
1967	J-1033	798.72	Forest	1.08	1064.61	115.04
2553	J-1371	796.02	Forest	0.48	1061.93	115.05
1756	J-897	791.89	Forest	0.48	1057.81	115.05
3362	J-1830	952.09	Lakes	0.29	1218.03	115.06
4665	J-2452	952.00	Lakes	0.20	1218.03	115.10
62	J-23	796.75	Forest	0.08	1062.90	115.15
6223	J-3346	952.19	Lakes	0.20	1218.35	115.15
836	J-472	794.62	Forest	0.28	1060.83	115.18
1182	J-619	952.32	Lakes	0.20	1218.60	115.21
6716	J-3637	795.49	Forest	0.68	1061.95	115.28
5511	J-2934	793.73	Forest	0.08	1060.24	115.31
6222	J-3345	951.71	Lakes	0.20	1218.35	115.36
6388	J-3444	951.48	Lakes	0.20	1218.15	115.38
6308	J-3397	951.34	Lakes	0.20	1218.03	115.39
4471	J-2341	794.07	Forest	1.28	1060.83	115.42
7690	J-4088	794.82	Forest	1.88	1061.61	115.43
296	J-152	951.55	Lakes	0.20	1218.35	115.43
297	J-153	951.51	Lakes	0.29	1218.35	115.45
4766	J-2508	794.01	Forest	0.88	1060.85	115.45
4470	J-2340	793.89	Forest	0.48	1060.83	115.49
1280	J-664	793.28	Forest	0.48	1060.24	115.50
4672	J-2456	793.88	Forest	1.68	1060.86	115.51
3262	J-1773	793.88	Forest	0.08	1060.86	115.51
2068	J-1094	951.04	Lakes	0.20	1218.03	115.51
4765	J-2507	793.80	Forest	0.48	1060.85	115.54
4529	J-2374	1055.80	Stewartsville	0.11	1322.91	115.57
4530	J-2375	1055.73	Stewartsville	0.11	1322.91	115.60
7837	J-4130	793.58	Forest	1.48	1060.84	115.63
511	J-288	950.72	Lakes	0.20	1218.03	115.65
7493	J-4026	793.50	Forest	0.48	1060.82	115.66
2698	J-1455	793.49	Forest	0.48	1060.83	115.67
1449	J-726	792.98	Forest	0.28	1060.38	115.69
7277	J-3946	795.75	Forest	1.68	1063.30	115.76
5018	J-2652	794.04	Forest	0.08	1061.68	115.79
5957	J-3189	950.97	Lakes	0.20	1218.60	115.79
5669	J-3026	950.38	Lakes	0.29	1218.03	115.80
2788	J-1509	790.12	Forest	1.28	1057.78	115.80
7716	J-4097	792.14	Forest	0.68	1059.96	115.87
7320	J-3962	789.94	Forest	0.08	1057.79	115.89

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2265	J-1211	789.90	Forest	0.08	1057.76	115.89
6519	J-3520	789.92	Forest	0.68	1057.79	115.90
6488	J-3502	950.46	Lakes	0.20	1218.37	115.91
4386	J-2309	791.58	Forest	0.08	1059.53	115.93
3492	J-1903	950.03	Lakes	1.41	1218.03	115.95
731	J-420	950.37	Lakes	0.20	1218.37	115.95
4972	J-2626	791.41	Forest	0.28	1059.53	116.00
5019	J-2653	793.54	Forest	1.08	1061.68	116.01
3543	J-1931	795.11	Forest	0.48	1063.30	116.03
6520	J-3521	789.60	Forest	0.68	1057.79	116.04
7042	J-3827	796.33	Forest	0.08	1064.63	116.08
4735	J-2491	792.50	Forest	0.08	1060.82	116.09
5063	J-2680	949.67	Lakes	0.37	1218.03	116.11
1450	J-727	792.00	Forest	0.08	1060.37	116.11
6173	J-3316	792.00	Forest	0.28	1060.37	116.11
5062	J-2679	949.65	Lakes	0.89	1218.03	116.11
1686	J-851	795.68	Forest	0.48	1064.07	116.12
846	J-477	1054.52	Stewartsville	0.40	1322.92	116.12
4488	J-2351	1054.49	Stewartsville	0.11	1322.92	116.13
2876	J-1558	792.37	Forest	0.48	1060.86	116.16
7600	J-4061	794.70	Forest	0.08	1063.30	116.21
4736	J-2492	792.16	Forest	0.88	1060.82	116.24
7162	J-3894	949.35	Lakes	1.67	1218.03	116.24
1861	J-964	794.40	Forest	0.48	1063.37	116.37
3607	J-1967	794.28	Forest	0.08	1063.37	116.42
6837	J-3709	792.41	Forest	1.28	1061.61	116.47
4236	J-2260	795.45	Forest	1.28	1064.79	116.53
2754	J-1489	795.14	Forest	1.48	1064.62	116.59
8463	J-4183	948.75	Lakes	0.20	1218.35	116.64
4180	J-2241	788.00	Forest	1.48	1057.81	116.74
6279	J-3380	788.00	Forest	0.48	1057.81	116.74
7378	J-3984	793.28	Forest	0.08	1063.37	116.86
6365	J-3431	793.28	Forest	1.28	1063.38	116.86
4848	J-2554	789.23	Forest	0.08	1059.53	116.95
6437	J-3473	947.81	Lakes	0.37	1218.15	116.96
2252	J-1203	790.49	Forest	0.68	1060.85	116.97
3609	J-1968	947.76	Lakes	0.20	1218.15	116.98
3028	J-1628	947.72	Lakes	0.20	1218.15	117.00
3029	J-1629	947.72	Lakes	0.20	1218.15	117.00
6013	J-3220	947.56	Lakes	0.37	1218.03	117.02
6436	J-3472	947.60	Lakes	0.37	1218.15	117.05
6364	J-3430	792.67	Forest	0.08	1063.38	117.13
4415	J-2318	788.80	Forest	0.08	1059.53	117.13
3281	J-1785	947.42	Lakes	0.63	1218.15	117.13
33	J-4	793.71	Forest	0.68	1064.49	117.15
3124	J-1689	788.74	Forest	0.08	1059.53	117.16
5520	J-2939	789.97	Forest	0.68	1060.80	117.18
2844	J-1541	1052.00	Stewartsville	3.44	1322.86	117.19
4212	J-2253	789.90	Forest	1.68	1060.80	117.21
4728	J-2487	1052.00	Stewartsville	0.11	1322.91	117.21
4729	J-2488	1052.00	Stewartsville	0.40	1322.91	117.21
5187	J-2748	1051.94	Stewartsville	0.26	1322.93	117.24
700	J-403	1051.97	Stewartsville	0.11	1322.97	117.25
5521	J-2940	789.73	Forest	0.28	1060.80	117.28
1903	J-991	788.42	Forest	0.08	1059.53	117.30
2479	J-1330	788.35	Forest	0.08	1059.53	117.32
5095	J-2697	789.13	Forest	0.08	1060.34	117.34
1838	J-949	793.34	Forest	0.48	1064.60	117.36
6807	J-3691	791.96	Forest	0.88	1063.30	117.40
862	J-496	1051.52	Stewartsville	0.11	1322.93	117.42
2478	J-1329	788.12	Forest	0.08	1059.53	117.43
5320	J-2825	791.78	Forest	0.48	1063.37	117.51
3579	J-1952	786.11	Forest	0.08	1057.76	117.53
7828	J-4128	792.94	Forest	0.28	1064.62	117.54
6875	J-3731	946.82	Lakes	0.37	1218.52	117.55
5458	J-2905	789.09	Forest	0.48	1060.84	117.58
2069	J-1095	946.25	Lakes	0.20	1218.03	117.59
4082	J-2200	788.98	Forest	0.88	1060.91	117.65
2398	J-1288	792.65	Forest	0.68	1064.63	117.67
5094	J-2696	788.35	Forest	0.08	1060.34	117.68
4627	J-2431	787.50	Forest	0.48	1059.53	117.69
1239	J-647	946.39	Lakes	0.20	1218.52	117.74
5319	J-2824	791.23	Forest	0.68	1063.37	117.74
4628	J-2432	787.35	Forest	0.08	1059.53	117.76
3544	J-1932	791.01	Forest	0.88	1063.30	117.81
6810	J-3693	789.32	Forest	0.68	1061.61	117.81
5457	J-2904	788.47	Forest	0.08	1060.84	117.84
5695	J-3041	785.35	Forest	0.08	1057.76	117.86
2880	J-1560	792.00	Forest	1.48	1064.62	117.95
1981	J-1042	791.97	Forest	0.08	1064.62	117.97
982	J-538	785.06	Forest	0.08	1057.82	118.01
7770	J-4112	787.74	Forest	0.88	1060.80	118.14
328	J-173	945.22	Lakes	0.29	1218.38	118.18
1706	J-864	787.71	Forest	0.88	1061.01	118.24
6809	J-3692	788.31	Forest	0.68	1061.61	118.25
4749	J-2499	791.26	Forest	0.08	1064.62	118.27
7199	J-3910	791.18	Forest	0.08	1064.63	118.31
1862	J-965	789.83	Forest	1.28	1063.35	118.34
5783	J-3092	784.20	Forest	0.68	1057.82	118.38
6452	J-3481	944.36	Lakes	0.20	1218.15	118.45
6088	J-3266	944.43	Lakes	0.20	1218.24	118.46
5424	J-2886	787.73	Forest	0.08	1061.63	118.50
3327	J-1810	790.70	Forest	0.08	1064.62	118.51
6087	J-3265	944.12	Lakes	0.20	1218.24	118.60
5423	J-2885	787.43	Forest	0.68	1061.63	118.63
2686	J-1447	787.35	Forest	0.28	1061.63	118.67
6453	J-3482	943.85	Lakes	0.37	1218.15	118.68
7327	J-3965	943.82	Lakes	0.20	1218.15	118.69
7863	J-4134	784.38	Forest	0.68	1058.74	118.71

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
327	J-172	944.01	Lakes	0.20	1218.38	118.71
1293	J-672	783.42	Forest	0.08	1057.83	118.73
7316	J-3961	943.51	Lakes	0.20	1218.15	118.82
5911	J-3163	941.90	Lakes	0.20	1216.70	118.90
6565	J-3548	783.01	Forest	0.08	1057.83	118.90
2428	J-1301	943.74	Lakes	0.20	1218.60	118.92
7299	J-3955	786.73	Forest	0.68	1061.63	118.93
4209	J-2252	785.21	Forest	1.28	1060.11	118.94
6384	J-3442	943.23	Lakes	0.29	1218.15	118.94
1827	J-942	789.63	Forest	0.88	1064.62	118.97
7758	J-4107	788.36	Forest	0.68	1063.38	118.99
3340	J-1817	943.09	Lakes	0.37	1218.15	119.00
1513	J-755	785.54	Forest	0.08	1060.66	119.03
6142	J-3298	785.49	Forest	0.28	1060.66	119.05
5259	J-2790	942.66	Lakes	0.63	1218.03	119.14
964	J-530	941.46	Lakes	0.37	1216.88	119.16
5981	J-3202	943.08	Lakes	0.20	1218.61	119.21
5276	J-2799	784.38	Forest	1.08	1060.11	119.30
3621	J-1974	942.27	Lakes	0.20	1218.03	119.31
6343	J-3418	941.09	Lakes	0.20	1216.88	119.32
5277	J-2800	784.28	Forest	0.68	1060.11	119.34
2453	J-1315	787.45	Forest	0.28	1063.48	119.43
943	J-520	942.52	Lakes	0.20	1218.61	119.45
4243	J-2261	784.71	Forest	1.28	1060.84	119.47
3341	J-1818	942.00	Lakes	0.46	1218.15	119.47
2719	J-1467	784.62	Forest	1.48	1060.83	119.50
2780	J-1504	784.72	Forest	0.68	1060.96	119.52
1216	J-637	940.28	Lakes	0.29	1216.70	119.59
7079	J-3848	940.43	Lakes	0.29	1216.98	119.65
5247	J-2783	784.27	Forest	1.48	1060.86	119.67
2062	J-1091	786.84	Forest	0.08	1063.52	119.71
2061	J-1090	786.78	Forest	0.08	1063.48	119.71
573	J-328	941.24	Lakes	0.55	1218.03	119.75
7644	J-4077	784.00	Forest	0.28	1060.83	119.77
6821	J-3699	786.51	Forest	0.68	1063.38	119.79
3654	J-1993	786.46	Forest	0.68	1063.38	119.81
5692	J-3039	783.76	Forest	0.68	1060.80	119.87
2074	J-1097	786.18	Forest	0.08	1063.44	119.95
5248	J-2784	783.27	Forest	0.48	1060.86	120.10
5693	J-3040	782.91	Forest	0.28	1060.80	120.23
54	J-18	784.94	Forest	0.08	1062.86	120.25
5860	J-3135	940.19	Lakes	0.20	1218.13	120.25
4033	J-2177	782.87	Forest	0.88	1060.81	120.25
6641	J-3593	780.21	Forest	1.48	1058.17	120.26
7733	J-4103	782.62	Forest	0.08	1060.82	120.37
53	J-17	784.65	Forest	1.08	1062.86	120.37
7559	J-4050	782.74	Forest	0.88	1060.97	120.38
701	J-404	1044.58	Stewartsville	0.11	1322.97	120.45
1550	J-770	939.60	Lakes	0.20	1218.13	120.50
690	J-397	939.92	Lakes	0.20	1218.60	120.57
2532	J-1359	939.89	Lakes	0.20	1218.60	120.58
7080	J-3849	938.22	Lakes	0.20	1216.98	120.61
2483	J-1332	939.81	Lakes	0.20	1218.60	120.62
3036	J-1633	939.75	Lakes	0.20	1218.60	120.65
6543	J-3534	783.98	Forest	0.68	1062.86	120.66
293	J-150	938.96	Lakes	0.20	1217.88	120.67
5760	J-3079	778.78	Forest	0.88	1057.81	120.72
294	J-151	938.60	Lakes	0.20	1217.88	120.83
158	J-77	937.62	Lakes	0.20	1216.98	120.87
6866	J-3725	781.59	Forest	0.48	1060.97	120.88
7711	J-4095	937.59	Lakes	0.20	1216.98	120.88
1856	J-961	782.45	Forest	0.88	1061.84	120.88
5761	J-3080	778.39	Forest	0.48	1057.81	120.89
3191	J-1729	939.10	Lakes	0.20	1218.60	120.93
370	J-200	781.38	Forest	0.08	1060.92	120.94
369	J-199	781.34	Forest	0.68	1060.92	120.96
7636	J-4074	938.53	Lakes	0.20	1218.15	120.98
5305	J-2816	783.40	Forest	1.28	1063.08	121.01
3160	J-1711	938.34	Lakes	0.37	1218.15	121.06
418	J-231	937.07	Lakes	0.20	1216.98	121.10
6242	J-3358	784.69	Forest	0.28	1064.62	121.11
6419	J-3462	783.44	Forest	0.28	1063.39	121.12
5683	J-3034	780.92	Forest	0.28	1060.92	121.14
6867	J-3726	780.96	Forest	0.48	1060.97	121.15
1788	J-917	780.10	Forest	0.88	1060.12	121.15
4043	J-2182	780.88	Forest	1.68	1060.91	121.16
6271	J-3375	937.35	Lakes	0.20	1217.92	121.39
6420	J-3463	782.74	Forest	0.28	1063.39	121.42
3159	J-1710	937.48	Lakes	0.20	1218.15	121.43
5606	J-2989	937.14	Lakes	4.42	1217.88	121.46
6642	J-3594	777.41	Forest	1.48	1058.17	121.47
6243	J-3359	783.85	Forest	0.08	1064.62	121.48
605	J-346	937.08	Lakes	0.20	1217.88	121.49
4877	J-2570	779.74	Forest	0.08	1060.82	121.61
5304	J-2815	781.81	Forest	0.88	1063.08	121.69
1317	J-680	778.46	Forest	0.08	1060.02	121.82
1257	J-653	936.34	Lakes	0.20	1217.92	121.82
5765	J-3082	778.91	Forest	0.08	1060.49	121.83
572	J-327	936.43	Lakes	0.20	1218.03	121.84
5986	J-3205	936.62	Lakes	0.20	1218.60	122.00
1738	J-885	779.61	Forest	0.68	1061.60	122.00
5399	J-2872	777.88	Forest	0.08	1060.02	122.07
1289	J-669	935.75	Lakes	0.20	1217.91	122.07
7365	J-3979	782.33	Forest	0.08	1064.62	122.14
5915	J-3165	935.57	Lakes	0.20	1217.91	122.16
5729	J-3061	1040.62	Stewartsville	0.11	1322.96	122.16
7667	J-4083	779.33	Forest	0.68	1061.70	122.16
4876	J-2569	778.13	Forest	0.08	1060.82	122.31
4083	J-2201	778.08	Forest	0.68	1060.91	122.37

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1787	J-916	777.17	Forest	0.08	1060.13	122.43
691	J-398	935.38	Lakes	0.29	1218.60	122.54
1102	J-591	935.32	Lakes	0.20	1218.60	122.56
4292	J-2278	780.00	Forest	1.28	1063.37	122.60
5157	J-2731	780.00	Forest	0.08	1063.37	122.60
5158	J-2732	780.00	Forest	0.88	1063.37	122.60
7323	J-3963	780.00	Forest	0.48	1063.37	122.60
1816	J-935	774.43	Forest	0.68	1057.81	122.60
6690	J-3622	780.00	Forest	0.68	1063.38	122.61
6691	J-3623	780.00	Forest	0.48	1063.38	122.61
3283	J-1786	779.92	Forest	0.48	1063.38	122.64
5685	J-3035	777.39	Forest	1.08	1060.91	122.67
3240	J-1759	776.60	Forest	0.48	1060.13	122.67
4816	J-2535	776.52	Forest	0.68	1060.13	122.70
857	J-483	1039.33	Stewartsville	0.11	1322.96	122.71
4563	J-2394	777.82	Forest	0.88	1061.60	122.78
1855	J-960	777.63	Forest	0.88	1061.83	122.96
5972	J-3197	934.35	Lakes	0.20	1218.60	122.98
509	J-287	1038.54	Stewartsville	0.26	1322.91	123.03
2720	J-1468	776.33	Forest	0.08	1060.83	123.09
2735	J-1477	778.82	Forest	0.48	1063.38	123.12
1815	J-934	773.19	Forest	1.08	1057.81	123.14
1292	J-671	773.20	Forest	0.08	1057.84	123.15
2672	J-1439	776.95	Forest	0.88	1061.60	123.15
5435	J-2892	778.71	Forest	0.68	1063.38	123.16
7666	J-4082	776.96	Forest	0.48	1061.70	123.19
7763	J-4109	778.64	Forest	1.48	1063.50	123.25
8413	J-4176	775.00	Forest	0.08	1060.01	123.31
1388	J-693	772.78	Forest	0.28	1057.81	123.32
5394	J-2869	772.75	Forest	1.28	1057.81	123.33
6591	J-3563	772.72	Forest	0.08	1057.84	123.36
4309	J-2284	1037.64	Stewartsville	1.12	1322.92	123.42
7541	J-4044	777.92	Forest	0.88	1063.39	123.51
6456	J-3484	777.43	Forest	0.08	1062.90	123.51
4565	J-2395	775.34	Forest	0.08	1060.83	123.52
6729	J-3645	777.87	Forest	0.88	1063.38	123.53
1520	J-757	774.96	Forest	0.08	1060.49	123.54
3078	J-1660	772.20	Forest	0.28	1057.81	123.57
3079	J-1661	772.19	Forest	0.08	1057.81	123.58
3694	J-2015	932.49	Lakes	0.98	1218.15	123.59
4566	J-2396	775.15	Forest	0.48	1060.83	123.60
7115	J-3868	777.58	Forest	0.08	1063.38	123.65
5151	J-2727	777.37	Forest	0.48	1063.37	123.74
5152	J-2728	777.32	Forest	0.88	1063.37	123.76
6728	J-3644	777.28	Forest	0.28	1063.38	123.78
6455	J-3483	776.75	Forest	0.48	1062.90	123.80
4441	J-2325	776.91	Forest	2.29	1063.07	123.81
147	J-72	776.00	Forest	0.48	1062.24	123.84
5481	J-2918	776.00	Forest	1.28	1062.24	123.84
2871	J-1556	778.34	Forest	1.28	1064.62	123.86
6231	J-3351	771.47	Forest	1.28	1057.81	123.89
508	J-286	1036.43	Stewartsville	0.26	1322.91	123.95
4543	J-2382	1036.23	Stewartsville	0.11	1322.91	124.04
4544	J-2383	1036.11	Stewartsville	0.11	1322.91	124.09
2111	J-1116	776.09	Forest	1.08	1062.90	124.09
4503	J-2359	777.81	Forest	0.08	1064.62	124.09
7249	J-3935	773.16	Forest	0.08	1060.01	124.11
2753	J-1488	777.66	Forest	0.28	1064.62	124.16
5925	J-3171	773.82	Forest	0.88	1060.82	124.17
4244	J-2262	773.82	Forest	2.49	1060.84	124.18
5924	J-3170	773.64	Forest	0.68	1060.82	124.25
7248	J-3934	772.76	Forest	0.08	1060.01	124.28
4923	J-2597	773.37	Forest	0.08	1060.84	124.37
1082	J-582	776.58	Forest	0.08	1064.09	124.39
2875	J-1557	773.27	Forest	2.29	1060.86	124.43
2497	J-1339	772.38	Forest	0.08	1060.01	124.45
5577	J-2972	773.12	Forest	0.48	1060.87	124.50
4759	J-2504	1035.15	Stewartsville	0.11	1322.92	124.51
6205	J-3335	930.40	Lakes	0.20	1218.19	124.51
1549	J-769	930.19	Lakes	0.20	1218.15	124.59
6804	J-3689	772.00	Forest	0.08	1060.01	124.61
6805	J-3690	772.00	Forest	0.08	1060.01	124.61
4885	J-2575	772.14	Forest	2.89	1060.17	124.62
4978	J-2629	771.49	Forest	0.28	1059.53	124.62
4886	J-2576	771.92	Forest	0.88	1060.17	124.71
5526	J-2943	772.50	Forest	1.48	1060.80	124.73
1737	J-884	773.25	Forest	0.28	1061.60	124.75
3472	J-1891	772.39	Forest	0.28	1060.87	124.81
6206	J-3336	929.71	Lakes	0.20	1218.19	124.81
3655	J-1994	774.87	Forest	0.48	1063.38	124.82
5284	J-2804	775.54	Forest	0.48	1064.09	124.84
1000	J-547	1034.35	Stewartsville	0.58	1322.92	124.85
5527	J-2944	772.08	Forest	0.48	1060.80	124.91
6032	J-3231	774.63	Forest	2.09	1063.37	124.93
2115	J-1119	768.71	Forest	0.48	1057.76	125.06
3172	J-1717	771.75	Forest	0.08	1060.81	125.06
7996	J-4157	772.51	Forest	0.48	1061.62	125.08
3175	J-1719	770.38	Forest	0.08	1059.53	125.10
6031	J-3230	773.78	Forest	0.48	1063.37	125.29
2043	J-1081	928.37	Lakes	0.29	1218.03	125.32
2863	J-1552	771.12	Forest	0.88	1060.81	125.34
5261	J-2791	771.05	Forest	0.68	1060.81	125.37
4343	J-2294	767.97	Forest	1.08	1057.76	125.38
2044	J-1082	928.06	Lakes	0.20	1218.03	125.46
3174	J-1718	769.55	Forest	0.28	1059.53	125.46
6178	J-3319	774.63	Forest	0.08	1064.62	125.47
2870	J-1555	774.63	Forest	0.08	1064.62	125.47
712	J-409	927.84	Lakes	0.20	1217.85	125.47
4621	J-2428	767.70	Forest	0.48	1057.76	125.50

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6673	J-3612	767.90	Forest	0.08	1058.02	125.52
2607	J-1402	767.72	Forest	0.88	1058.02	125.60
3205	J-1738	774.22	Forest	0.08	1064.62	125.64
7157	J-3891	770.39	Forest	0.28	1060.94	125.71
5223	J-2768	769.57	Forest	1.08	1060.15	125.72
7158	J-3892	770.32	Forest	0.48	1060.94	125.74
5224	J-2769	769.43	Forest	1.48	1060.15	125.78
2841	J-1540	770.88	Forest	0.88	1061.62	125.79
2112	J-1117	772.12	Forest	0.48	1062.90	125.80
355	J-190	927.16	Lakes	0.20	1217.93	125.80
3430	J-1867	772.00	Forest	0.28	1062.86	125.84
6693	J-3624	772.00	Forest	0.08	1062.86	125.84
4500	J-2357	770.03	Forest	0.48	1060.94	125.86
2114	J-1118	766.83	Forest	0.48	1057.76	125.87
3204	J-1737	773.62	Forest	0.48	1064.62	125.91
356	J-191	926.88	Lakes	0.20	1217.93	125.93
4501	J-2358	769.86	Forest	1.28	1060.94	125.94
3473	J-1892	769.32	Forest	0.68	1060.87	126.14
5793	J-3097	769.72	Forest	0.08	1061.62	126.29
5724	J-3058	925.99	Lakes	0.20	1218.03	126.35
5723	J-3057	925.90	Lakes	0.20	1218.03	126.39
1245	J-650	925.79	Lakes	0.20	1217.95	126.40
6265	J-3372	925.73	Lakes	0.20	1217.93	126.42
2253	J-1204	768.58	Forest	1.28	1060.85	126.45
5331	J-2832	925.40	Lakes	0.20	1217.95	126.57
5794	J-3098	768.74	Forest	0.28	1061.62	126.71
889	J-499	768.00	Forest	0.88	1060.90	126.72
4796	J-2525	768.00	Forest	0.48	1060.90	126.72
3429	J-1866	769.54	Forest	0.28	1062.86	126.91
2578	J-1385	771.10	Forest	1.08	1064.62	126.99
1870	J-970	769.84	Forest	1.08	1063.38	127.00
3738	J-2040	767.22	Forest	0.68	1060.91	127.06
4443	J-2326	1029.11	Stewartsville	0.69	1322.91	127.11
6434	J-3471	924.10	Lakes	0.29	1218.03	127.17
3907	J-2121	766.93	Forest	1.28	1060.91	127.19
7569	J-4052	924.02	Lakes	0.37	1218.03	127.21
594	J-340	923.92	Lakes	0.20	1217.93	127.21
3751	J-2046	766.79	Forest	0.48	1060.91	127.25
6433	J-3470	923.61	Lakes	0.20	1218.03	127.38
3695	J-2016	923.07	Lakes	0.37	1218.15	127.67
804	J-456	923.26	Lakes	0.20	1218.60	127.78
7536	J-4042	922.74	Lakes	0.20	1218.15	127.81
8453	J-4179	578.08	Forest	0.68	873.78	127.94
310	J-161	922.15	Lakes	0.20	1218.03	128.01
2498	J-1340	764.00	Forest	0.08	1060.01	128.07
4558	J-2391	764.85	Forest	0.48	1060.91	128.09
7348	J-3975	921.95	Lakes	0.20	1218.03	128.10
7130	J-3876	764.70	Forest	1.28	1060.80	128.11
2837	J-1537	764.53	Forest	0.48	1060.80	128.18
3742	J-2042	764.59	Forest	0.48	1060.91	128.20
4700	J-2471	764.53	Forest	0.68	1060.89	128.22
4466	J-2338	764.38	Forest	0.48	1060.80	128.24
255	J-126	764.46	Forest	0.48	1060.89	128.25
5221	J-2767	921.59	Lakes	0.20	1218.03	128.26
309	J-160	921.49	Lakes	0.20	1218.03	128.30
6144	J-3299	921.35	Lakes	0.29	1218.03	128.36
256	J-127	764.17	Forest	0.68	1060.89	128.37
3737	J-2039	764.00	Forest	0.68	1060.91	128.46
4617	J-2426	764.00	Forest	0.88	1060.91	128.46
2366	J-1269	767.67	Forest	0.08	1064.63	128.48
2365	J-1268	767.67	Forest	0.08	1064.63	128.48
4696	J-2469	1025.90	Stewartsville	0.40	1322.95	128.52
2059	J-1089	920.96	Lakes	0.20	1218.03	128.53
680	J-392	1025.82	Stewartsville	0.11	1322.95	128.55
1935	J-1012	766.17	Forest	0.68	1063.46	128.62
6269	J-3374	920.51	Lakes	0.20	1217.89	128.66
1290	J-670	920.00	Lakes	0.20	1217.89	128.88
5432	J-2890	765.55	Forest	0.28	1063.46	128.89
5433	J-2891	765.15	Forest	0.48	1063.46	129.07
2714	J-1465	766.13	Forest	0.28	1064.63	129.15
3994	J-2160	761.56	Forest	1.48	1060.13	129.18
3034	J-1632	765.88	Forest	0.08	1064.63	129.25
5769	J-3084	765.85	Forest	0.08	1064.61	129.26
2577	J-1384	765.81	Forest	0.08	1064.62	129.28
2926	J-1583	764.66	Forest	0.88	1063.48	129.28
7066	J-3840	765.39	Forest	0.08	1064.62	129.47
4100	J-2208	761.45	Forest	1.28	1060.80	129.51
5029	J-2659	758.26	Forest	0.88	1057.76	129.58
5030	J-2660	758.14	Forest	0.48	1057.76	129.63
2266	J-1212	757.97	Forest	0.88	1057.75	129.70
718	J-413	764.67	Forest	0.08	1064.61	129.77
6645	J-3596	764.32	Forest	0.08	1064.61	129.92
7060	J-3837	760.16	Forest	0.68	1060.80	130.07
159	J-78	916.03	Lakes	0.20	1216.98	130.21
7593	J-4058	759.39	Forest	1.28	1060.80	130.41
1750	J-893	756.39	Forest	0.48	1058.02	130.50
713	J-410	915.99	Lakes	0.20	1217.85	130.60
5035	J-2663	915.95	Lakes	0.20	1217.85	130.62
3686	J-2010	916.25	Lakes	0.37	1218.14	130.62
4905	J-2587	916.08	Lakes	0.29	1218.14	130.69
4584	J-2407	914.82	Lakes	0.20	1216.98	130.73
3717	J-2028	758.60	Forest	0.48	1060.82	130.76
6600	J-3568	916.00	Lakes	0.29	1218.31	130.79
6601	J-3569	916.00	Lakes	0.20	1218.31	130.79
2180	J-1160	755.03	Forest	0.08	1057.76	130.97
6113	J-3280	915.40	Lakes	0.20	1218.17	130.99
6114	J-3281	915.30	Lakes	0.20	1218.17	131.04
3806	J-2072	757.81	Forest	1.08	1060.80	131.09
5053	J-2674	757.11	Forest	1.28	1060.13	131.10

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7122	J-3872	915.12	Lakes	0.20	1218.14	131.11
1749	J-892	754.88	Forest	0.68	1058.02	131.15
8513	J-4209	757.56	Forest	0.68	1060.82	131.21
6644	J-3595	761.32	Forest	0.08	1064.61	131.22
70	J-28	758.95	Forest	0.08	1062.30	131.24
4904	J-2586	914.78	Lakes	0.20	1218.14	131.25
5054	J-2675	756.73	Forest	0.48	1060.13	131.27
272	J-137	915.16	Lakes	0.20	1218.61	131.28
3378	J-1838	759.28	Forest	0.08	1062.86	131.35
273	J-138	914.97	Lakes	0.20	1218.61	131.37
3680	J-2007	757.16	Forest	0.48	1060.80	131.37
3628	J-1978	760.94	Forest	0.28	1064.62	131.39
737	J-422	757.05	Forest	1.28	1060.90	131.46
5141	J-2722	758.61	Forest	0.08	1062.86	131.63
5595	J-2982	756.27	Forest	0.48	1060.91	131.81
4156	J-2231	1018.17	Stewartsville	0.42	1322.92	131.85
3716	J-2027	756.05	Forest	0.88	1060.82	131.86
6314	J-3400	755.99	Forest	0.68	1060.80	131.87
3679	J-2006	755.67	Forest	1.28	1060.80	132.01
7090	J-3854	756.95	Forest	0.08	1062.30	132.11
1959	J-1028	759.14	Forest	0.48	1064.63	132.17
98	J-46	911.37	Lakes	0.20	1216.98	132.22
1577	J-782	911.10	Lakes	0.20	1216.98	132.34
1576	J-781	911.01	Lakes	0.20	1216.98	132.38
69	J-27	756.32	Forest	0.08	1062.30	132.38
4342	J-2293	751.47	Forest	0.68	1057.76	132.52
3058	J-1647	756.51	Forest	0.08	1062.86	132.54
3059	J-1648	756.41	Forest	0.08	1062.86	132.59
2904	J-1573	754.40	Forest	1.48	1060.90	132.61
1096	J-588	911.54	Lakes	0.20	1218.31	132.72
6315	J-3401	753.99	Forest	1.48	1060.80	132.74
1950	J-1022	1016.00	Stewartsville	0.40	1322.91	132.79
5751	J-3074	911.25	Lakes	0.20	1218.28	132.84
5204	J-2757	750.65	Forest	0.88	1057.76	132.87
6132	J-3292	911.02	Lakes	0.20	1218.31	132.95
1871	J-971	756.09	Forest	0.48	1063.38	132.95
4970	J-2625	1015.59	Stewartsville	0.11	1322.92	132.97
5750	J-3073	910.94	Lakes	0.20	1218.28	132.97
7108	J-3864	910.39	Lakes	0.20	1217.85	133.02
1646	J-826	909.39	Lakes	0.20	1216.98	133.08
1259	J-654	750.23	Forest	0.28	1057.82	133.08
7109	J-3865	910.20	Lakes	0.20	1217.85	133.10
5596	J-2983	753.21	Forest	0.08	1060.91	133.13
7139	J-3881	910.11	Lakes	0.20	1217.85	133.14
6486	J-3501	750.01	Forest	0.08	1057.82	133.18
4939	J-2607	909.09	Lakes	0.20	1216.98	133.21
97	J-45	909.00	Lakes	0.37	1216.98	133.25
6937	J-3768	752.10	Forest	0.48	1060.15	133.28
6106	J-3276	749.27	Forest	1.68	1057.76	133.47
4138	J-2224	756.00	Forest	0.08	1064.62	133.53
1281	J-665	751.49	Forest	0.48	1060.15	133.55
4174	J-2239	755.91	Forest	0.08	1064.62	133.57
2838	J-1538	752.07	Forest	1.48	1060.80	133.57
814	J-460	1014.18	Stewartsville	0.26	1322.92	133.58
719	J-414	755.85	Forest	0.08	1064.61	133.59
4725	J-2485	751.99	Forest	0.08	1060.89	133.65
790	J-450	751.94	Forest	0.08	1060.89	133.67
1958	J-1027	755.66	Forest	0.08	1064.63	133.68
6107	J-3277	748.52	Forest	0.48	1057.76	133.79
592	J-339	1013.67	Stewartsville	0.11	1322.95	133.81
4726	J-2486	751.54	Forest	0.28	1060.89	133.84
6124	J-3287	908.48	Lakes	0.20	1218.16	133.98
591	J-338	1012.81	Stewartsville	0.11	1322.95	134.18
6125	J-3288	907.52	Lakes	0.20	1218.16	134.40
2181	J-1161	745.74	Forest	0.88	1057.76	134.99
6856	J-3719	1010.59	Stewartsville	0.40	1322.92	135.13
6857	J-3720	1010.43	Stewartsville	1.36	1322.92	135.20
738	J-423	748.09	Forest	0.28	1060.91	135.34
3338	J-1816	749.95	Forest	1.68	1063.37	135.60
1934	J-1011	749.75	Forest	0.48	1063.46	135.73
5741	J-3068	750.24	Forest	0.48	1064.62	136.02
2722	J-1469	748.65	Forest	0.08	1063.37	136.16
4630	J-2433	902.22	Lakes	0.20	1216.97	136.18
815	J-461	1008.03	Stewartsville	0.26	1322.92	136.24
4853	J-2557	903.13	Lakes	0.63	1218.03	136.24
4631	J-2434	902.05	Lakes	0.20	1216.97	136.25
5377	J-2859	748.41	Forest	0.48	1063.37	136.27
4852	J-2556	903.04	Lakes	1.24	1218.03	136.28
3453	J-1880	748.20	Forest	1.28	1063.37	136.36
5376	J-2858	748.00	Forest	0.48	1063.37	136.45
2177	J-1158	742.26	Forest	0.88	1057.76	136.50
7058	J-3836	745.06	Forest	0.28	1060.80	136.60
4755	J-2502	741.85	Forest	0.48	1057.76	136.68
4139	J-2225	748.68	Forest	0.28	1064.62	136.69
3603	J-1966	747.24	Forest	1.88	1063.37	136.77
2567	J-1378	744.65	Forest	1.68	1060.80	136.78
2862	J-1551	744.59	Forest	1.28	1060.81	136.81
3454	J-1881	747.15	Forest	0.28	1063.37	136.81
6739	J-3650	748.00	Forest	0.08	1064.62	136.99
6740	J-3651	748.00	Forest	0.88	1064.62	136.99
5845	J-3127	746.61	Forest	0.48	1063.37	137.05
6290	J-3386	743.81	Forest	0.48	1060.91	137.19
3376	J-1837	900.88	Lakes	0.55	1218.03	137.22
5165	J-2736	746.18	Forest	0.08	1063.37	137.23
3807	J-2073	743.59	Forest	0.88	1060.80	137.24
3317	J-1804	900.64	Lakes	3.35	1218.03	137.32
2647	J-1425	745.89	Forest	0.88	1063.37	137.36
2178	J-1159	740.20	Forest	0.68	1057.76	137.39
4420	J-2319	739.89	Forest	0.48	1057.76	137.52

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5588	J-2978	739.84	Forest	0.48	1057.82	137.57
3316	J-1803	900.00	Lakes	0.29	1218.03	137.60
6474	J-3494	745.33	Forest	0.68	1063.37	137.60
6921	J-3759	899.76	Lakes	0.20	1218.03	137.70
3273	J-1780	899.76	Lakes	0.55	1218.03	137.70
3272	J-1779	899.42	Lakes	0.20	1218.03	137.85
3712	J-2025	741.81	Forest	1.88	1060.80	138.01
4456	J-2332	1003.97	Stewartsville	0.26	1322.96	138.01
3374	J-1836	899.03	Lakes	0.55	1218.03	138.02
1198	J-627	1003.86	Stewartsville	1.55	1322.96	138.06
1095	J-587	899.17	Lakes	0.20	1218.32	138.08
6194	J-3328	738.56	Forest	1.08	1057.76	138.10
5504	J-2930	744.02	Forest	1.48	1063.30	138.14
5589	J-2979	738.50	Forest	0.48	1057.82	138.16
3097	J-1672	743.84	Forest	0.48	1063.30	138.22
3096	J-1671	743.71	Forest	0.48	1063.30	138.27
5492	J-2924	898.70	Lakes	0.20	1218.32	138.28
2568	J-1379	741.06	Forest	0.08	1060.80	138.33
2648	J-1426	743.57	Forest	0.88	1063.37	138.36
1840	J-950	743.43	Forest	0.48	1063.37	138.43
5369	J-2854	740.44	Forest	0.08	1060.80	138.60
3515	J-1917	897.01	Lakes	0.20	1218.03	138.89
3355	J-1826	741.74	Forest	0.08	1062.86	138.93
6707	J-3632	741.25	Forest	0.08	1062.86	139.15
4990	J-2636	741.47	Forest	0.08	1063.37	139.27
4991	J-2637	741.31	Forest	0.68	1063.37	139.34
3354	J-1825	740.02	Forest	0.08	1062.86	139.68
1261	J-655	1000.03	Stewartsville	0.26	1322.92	139.70
150	J-73	739.38	Forest	0.08	1062.37	139.74
6952	J-3776	895.01	Lakes	0.29	1218.03	139.75
7308	J-3958	893.74	Lakes	0.20	1216.97	139.85
4644	J-2441	999.68	Stewartsville	0.11	1322.92	139.85
1841	J-951	740.11	Forest	1.08	1063.36	139.86
3819	J-2078	999.55	Stewartsville	1.41	1322.91	139.90
3389	J-1843	893.52	Lakes	0.20	1216.97	139.94
3390	J-1844	893.18	Lakes	0.20	1216.97	140.09
3514	J-1916	894.21	Lakes	0.20	1218.03	140.10
5615	J-2994	738.23	Forest	0.28	1062.46	140.28
3166	J-1714	739.29	Forest	0.28	1064.62	140.76
6495	J-3506	736.86	Forest	0.08	1062.37	140.83
2795	J-1513	739.08	Forest	0.08	1064.62	140.85
267	J-134	892.19	Lakes	0.20	1218.10	141.00
268	J-135	892.19	Lakes	0.20	1218.10	141.00
270	J-136	892.19	Lakes	0.20	1218.10	141.01
175	J-86	736.00	Forest	0.08	1062.46	141.24
3571	J-1947	891.49	Lakes	1.24	1218.03	141.28
6719	J-3639	737.82	Forest	0.08	1064.62	141.39
6431	J-3469	995.82	Stewartsville	0.11	1322.91	141.52
2601	J-1398	735.73	Forest	0.68	1062.86	141.54
6605	J-3571	736.20	Forest	0.48	1063.37	141.55
6606	J-3572	736.16	Forest	1.68	1063.37	141.57
6220	J-3344	735.55	Forest	0.48	1062.86	141.61
5889	J-3151	890.72	Lakes	0.20	1218.10	141.64
1232	J-645	888.20	Lakes	0.20	1216.30	141.95
2622	J-1411	735.27	Forest	0.68	1063.37	141.95
6649	J-3598	734.93	Forest	0.48	1063.37	142.10
244	J-119	889.49	Lakes	0.20	1218.03	142.14
243	J-118	889.19	Lakes	0.20	1218.03	142.27
5763	J-3081	887.24	Lakes	0.46	1216.30	142.37
6650	J-3599	734.18	Forest	1.68	1063.37	142.42
5288	J-2806	887.04	Lakes	0.20	1216.49	142.54
1231	J-644	886.88	Lakes	0.20	1216.49	142.61
2135	J-1132	887.97	Lakes	0.72	1218.03	142.80
5679	J-3032	733.01	Forest	0.88	1063.43	142.96
5437	J-2893	992.26	Stewartsville	0.40	1322.92	143.06
3623	J-1975	992.02	Stewartsville	0.11	1322.91	143.16
5678	J-3031	732.51	Forest	0.08	1063.43	143.17
7339	J-3969	732.43	Forest	0.48	1063.37	143.18
4625	J-2430	991.88	Stewartsville	0.11	1322.92	143.23
7340	J-3970	732.29	Forest	0.08	1063.37	143.24
211	J-97	887.00	Lakes	0.20	1218.11	143.26
210	J-96	886.94	Lakes	0.20	1218.11	143.28
1022	J-556	991.53	Stewartsville	0.26	1322.92	143.38
6833	J-3706	886.60	Lakes	0.20	1218.03	143.39
1211	J-634	726.21	Forest	0.08	1057.83	143.48
4157	J-2232	991.16	Stewartsville	0.69	1322.92	143.53
5993	J-3209	886.77	Lakes	0.20	1218.61	143.57
4270	J-2272	730.82	Forest	1.88	1062.89	143.67
6834	J-3707	885.90	Lakes	0.29	1218.03	143.69
4612	J-2423	885.87	Lakes	0.20	1218.03	143.71
974	J-535	886.41	Lakes	0.20	1218.61	143.73
3426	J-1864	885.71	Lakes	0.20	1218.03	143.78
5858	J-3134	725.48	Forest	0.48	1057.83	143.79
3427	J-1865	885.66	Lakes	0.20	1218.03	143.80
3590	J-1958	885.62	Lakes	0.29	1218.03	143.82
4660	J-2449	730.35	Forest	0.48	1062.77	143.82
4481	J-2347	730.39	Forest	0.68	1062.89	143.86
1949	J-1021	990.38	Stewartsville	0.11	1322.91	143.87
664	J-383	885.46	Lakes	0.37	1218.03	143.89
140	J-69	730.00	Forest	1.28	1062.77	143.97
2602	J-1399	729.76	Forest	0.88	1062.86	144.12
2134	J-1131	884.91	Lakes	0.20	1218.03	144.12
1312	J-678	884.26	Lakes	0.29	1217.83	144.32
3056	J-1646	884.41	Lakes	0.46	1218.03	144.34
3055	J-1645	884.40	Lakes	0.29	1218.03	144.34
6267	J-3373	884.05	Lakes	0.20	1217.83	144.41
1834	J-946	729.36	Forest	1.08	1063.37	144.51
5613	J-2993	729.54	Forest	0.48	1064.62	144.97
3591	J-1959	882.68	Lakes	2.97	1218.03	145.09

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1089	J-585	728.00	Forest	0.48	1064.08	145.41
5176	J-2742	728.00	Forest	0.08	1064.08	145.41
545	J-310	881.83	Lakes	0.20	1218.12	145.50
6587	J-3561	881.71	Lakes	0.20	1218.12	145.55
7875	J-4136	881.60	Lakes	0.46	1218.03	145.55
6725	J-3642	724.44	Forest	0.88	1060.91	145.57
5612	J-2992	727.29	Forest	0.48	1064.62	145.95
2623	J-1412	724.28	Forest	0.48	1063.37	146.71
1835	J-947	723.70	Forest	0.48	1063.37	146.96
2597	J-1396	720.00	Forest	0.48	1060.80	147.45
4745	J-2497	981.74	Stewartsville	0.11	1322.95	147.63
8375	J-4175	720.32	Forest	0.08	1061.85	147.76
6726	J-3643	719.24	Forest	0.68	1060.91	147.82
1274	J-661	874.35	Lakes	0.20	1216.06	147.84
6533	J-3528	873.86	Lakes	0.20	1216.06	148.06
1199	J-628	980.00	Stewartsville	0.11	1322.95	148.38
770	J-439	874.90	Lakes	0.29	1218.03	148.46
4636	J-2437	874.17	Lakes	0.20	1218.03	148.77
4921	J-2596	720.24	Forest	0.08	1064.62	149.00
3422	J-1862	720.18	Forest	0.08	1064.62	149.02
3421	J-1861	719.87	Forest	0.28	1064.62	149.16
2596	J-1395	716.00	Forest	0.88	1060.80	149.18
1843	J-952	719.74	Forest	0.08	1064.62	149.21
672	J-388	976.63	Stewartsville	0.69	1322.92	149.82
7597	J-4060	870.57	Lakes	0.20	1217.82	150.24
5853	J-3131	716.05	Forest	1.88	1063.37	150.27
671	J-387	975.09	Stewartsville	0.11	1322.92	150.49
5854	J-3132	715.49	Forest	0.08	1063.37	150.51
1844	J-953	716.00	Forest	0.88	1064.61	150.83
5569	J-2968	868.96	Lakes	0.20	1217.82	150.93
1313	J-679	868.58	Lakes	0.20	1217.82	151.10
5356	J-2846	866.99	Lakes	0.20	1216.97	151.42
5357	J-2847	866.30	Lakes	0.20	1216.97	151.72
1670	J-840	971.62	Stewartsville	0.26	1322.91	151.99
6535	J-3529	971.13	Stewartsville	0.11	1322.92	152.20
5604	J-2988	866.02	Lakes	0.46	1218.03	152.30
684	J-394	970.66	Stewartsville	0.11	1322.92	152.41
4733	J-2490	864.03	Lakes	0.20	1217.78	153.05
1671	J-841	969.03	Stewartsville	0.55	1322.91	153.11
3180	J-1722	862.90	Lakes	0.20	1216.97	153.19
2473	J-1327	863.62	Lakes	0.63	1217.78	153.23
3181	J-1723	862.73	Lakes	1.06	1216.97	153.27
3689	J-2012	708.49	Forest	1.08	1062.81	153.30
4694	J-2468	862.58	Lakes	0.37	1216.97	153.33
3637	J-1983	863.35	Lakes	0.29	1217.78	153.34
2050	J-1085	863.50	Lakes	0.20	1218.03	153.39
4955	J-2616	708.02	Forest	0.88	1062.81	153.50
7165	J-3895	863.17	Lakes	0.20	1218.03	153.53
8076	J-4166	863.12	Lakes	0.20	1218.03	153.55
4717	J-2480	861.73	Lakes	0.29	1217.76	154.04
7243	J-3931	861.71	Lakes	0.37	1217.76	154.05
4718	J-2481	861.54	Lakes	0.29	1217.76	154.12
4810	J-2532	860.60	Lakes	0.20	1216.98	154.19
7244	J-3932	861.36	Lakes	0.20	1217.76	154.20
2038	J-1078	861.61	Lakes	0.20	1218.03	154.21
185	J-89	860.35	Lakes	0.20	1216.98	154.30
5257	J-2789	861.03	Lakes	0.29	1217.77	154.34
2039	J-1079	861.19	Lakes	0.20	1218.03	154.39
5256	J-2788	860.82	Lakes	0.20	1217.77	154.43
6119	J-3284	861.19	Lakes	0.20	1218.20	154.46
6274	J-3377	859.93	Lakes	1.52	1217.76	154.82
3688	J-2011	704.94	Forest	0.88	1062.79	154.83
2046	J-1083	860.09	Lakes	0.20	1218.03	154.86
2041	J-1080	860.00	Lakes	0.20	1218.03	154.90
4518	J-2368	704.63	Forest	0.48	1062.79	154.96
2048	J-1084	859.02	Lakes	0.20	1218.03	155.33
3395	J-1847	858.20	Lakes	0.46	1217.75	155.56
6065	J-3252	858.11	Lakes	0.29	1217.75	155.60
6064	J-3251	857.64	Lakes	0.20	1217.75	155.80
6073	J-3257	857.60	Lakes	0.20	1217.79	155.84
7016	J-3813	697.52	Forest	0.08	1057.83	155.89
6072	J-3256	856.92	Lakes	0.20	1217.79	156.13
6273	J-3376	856.63	Lakes	0.37	1217.76	156.24
829	J-469	857.05	Lakes	0.20	1218.20	156.25
6208	J-3337	855.81	Lakes	0.20	1218.01	156.71
1180	J-618	854.57	Lakes	0.55	1218.01	157.25
1268	J-658	852.00	Lakes	0.29	1215.86	157.42
4648	J-2443	852.00	Lakes	0.72	1215.86	157.42
4742	J-2495	852.19	Lakes	0.72	1216.97	157.83
4743	J-2496	851.51	Lakes	0.55	1216.97	158.12
1212	J-635	692.00	Forest	0.08	1057.83	158.28
139	J-68	694.79	Forest	0.48	1062.73	159.19
515	J-291	846.91	Lakes	0.20	1218.03	160.57
6500	J-3509	846.22	Lakes	0.20	1217.75	160.74
1622	J-811	846.06	Lakes	0.29	1217.75	160.81
1630	J-816	845.88	Lakes	0.20	1217.75	160.89
7221	J-3921	845.85	Lakes	0.20	1217.75	160.90
6499	J-3508	845.81	Lakes	0.20	1217.75	160.92
178	J-87	844.90	Lakes	0.20	1216.98	160.98
4652	J-2445	844.76	Lakes	0.20	1216.98	161.04
4186	J-2244	843.72	Lakes	0.72	1216.97	161.49
6658	J-3603	844.53	Lakes	0.20	1218.03	161.60
413	J-228	843.99	Lakes	0.20	1217.99	161.81
952	J-525	843.65	Lakes	0.20	1218.24	162.07
412	J-227	842.88	Lakes	0.20	1217.99	162.29
5007	J-2646	842.85	Lakes	0.20	1218.03	162.32
514	J-290	842.77	Lakes	0.20	1218.03	162.36
3731	J-2036	842.73	Lakes	0.20	1218.03	162.38
4098	J-2207	841.49	Lakes	1.24	1216.97	162.45

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7014	J-3812	841.53	Lakes	0.20	1218.24	162.98
1148	J-607	840.88	Lakes	0.20	1218.05	163.18
6656	J-3602	839.82	Lakes	0.20	1218.05	163.64
461	J-258	839.33	Lakes	0.20	1218.21	163.92
5887	J-3150	838.89	Lakes	0.20	1218.02	164.03
564	J-322	838.21	Lakes	0.46	1218.02	164.33
6545	J-3535	835.42	Lakes	0.29	1215.66	164.51
4057	J-2188	836.45	Lakes	0.72	1216.97	164.64
3730	J-2035	836.87	Lakes	0.20	1218.03	164.91
6111	J-3279	836.62	Lakes	0.29	1217.99	165.00
5123	J-2712	682.99	Forest	0.08	1064.63	165.11
1136	J-601	833.96	Lakes	0.55	1215.66	165.14
312	J-162	836.34	Lakes	0.20	1218.21	165.22
313	J-163	836.17	Lakes	0.29	1218.21	165.29
550	J-313	835.45	Lakes	0.72	1217.99	165.51
4674	J-2457	835.62	Lakes	0.20	1218.21	165.53
5124	J-2713	682.00	Forest	0.88	1064.63	165.54
4658	J-2448	833.80	Lakes	0.20	1216.98	165.78
58	J-20	833.77	Lakes	0.20	1216.98	165.80
59	J-21	833.64	Lakes	0.37	1216.98	165.85
4294	J-2279	938.48	Stewartsville	0.55	1322.91	166.32
5392	J-2868	938.45	Stewartsville	0.83	1322.91	166.34
4056	J-2187	831.19	Lakes	1.41	1216.97	166.91
4601	J-2417	831.10	Lakes	0.37	1216.97	166.95
563	J-321	831.95	Lakes	0.20	1218.02	167.04
2022	J-1068	829.97	Lakes	0.20	1216.98	167.44
4461	J-2335	829.08	Lakes	1.93	1216.97	167.82
4462	J-2336	829.08	Lakes	0.20	1216.97	167.82
6329	J-3409	829.60	Lakes	0.20	1218.25	168.15
168	J-83	672.67	Forest	0.08	1062.65	168.72
6652	J-3600	672.38	Forest	0.08	1062.65	168.85
7486	J-4023	825.01	Lakes	0.20	1216.97	169.58
463	J-259	826.28	Lakes	0.20	1218.25	169.59
241	J-117	822.18	Lakes	0.37	1218.25	171.36
1214	J-636	822.06	Lakes	0.55	1218.17	171.38
240	J-116	822.02	Lakes	0.37	1218.25	171.43
6067	J-3253	820.03	Lakes	0.20	1218.17	172.26
495	J-278	815.49	Lakes	0.29	1215.51	173.07
1266	J-657	817.44	Lakes	0.20	1218.07	173.33
5579	J-2973	816.54	Lakes	0.20	1218.07	173.72
6647	J-3597	816.45	Lakes	0.20	1218.14	173.80
496	J-279	812.27	Lakes	0.20	1215.51	174.46
7808	J-4122	658.30	Forest	0.48	1064.63	175.80
1329	J-682	811.66	Lakes	0.20	1218.14	175.87
3260	J-1772	914.04	Stewartsville	0.83	1322.91	176.90
3259	J-1771	913.57	Stewartsville	0.26	1322.91	177.10
381	J-207	799.73	Lakes	257.22	1215.48	179.87
2369	J-1271	639.47	Forest	0.48	1064.63	183.95
2368	J-1270	630.22	Forest	0.08	1064.63	187.95

**BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013**

Run 1 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.

Existing Water System.

All Tanks at Normal Low Level, High Point WTP - Off, & Lynchburg WTP - Off.

Steady State Analysis

Pipe Report - sorted by link label

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
28	P-1	18.00	1.00	130.00	Open	0.08	1060.11	1060.11	0.00	0.00
31	P-2	191.00	1.00	130.00	Open	0.68	1064.61	1064.49	0.12	0.00
34	P-3	3.00	10.00	130.00	Open	42.52	1062.03	1062.03	0.00	0.00
37	P-4	10.00	10.00	130.00	Open	35.45	1064.62	1064.62	0.00	0.00
40	P-5	12.00	10.00	130.00	Open	-0.08	963.96	963.96	0.00	0.00
8578	P-6	20.00	4.00	130.00	Open	0.00	1201.29	1201.29	0.00	0.00
43	P-6	15.00	10.00	130.00	Open	-225.46	1060.05	1060.06	0.01	0.00
8579	P-7	992.00	4.00	130.00	Open	3.75	1201.29	1201.27	0.02	0.00
46	P-7	16.00	10.00	130.00	Open	97.49	1062.10	1062.10	0.00	0.00
49	P-8	16.00	10.00	130.00	Open	-224.40	1059.69	1059.70	0.01	0.00
8582	P-8	60.00	6.00	130.00	Open	0.00	971.50	971.50	0.00	0.00
52	P-9	17.00	10.00	130.00	Open	-114.87	1062.86	1062.86	0.00	0.00
8583	P-9	57.00	6.00	130.00	Open	0.00	1218.60	1218.60	0.00	0.00
55	P-10	19.00	10.00	130.00	Open	-28.46	1062.10	1062.10	0.00	0.00
8585	P-10	14.00	4.00	130.00	Open	12.39	1218.60	1218.60	0.00	0.00
57	P-11	22.00	10.00	130.00	Open	13.42	1216.98	1216.98	0.00	0.00
8586	P-11	15.00	4.00	130.00	Open	12.39	1022.96	1022.96	0.00	0.00
60	P-12	24.00	10.00	130.00	Open	-117.82	1062.90	1062.90	0.00	0.00
8590	P-13	100.00	6.00	130.00	Open	-0.54	1075.00	1075.00	0.00	0.00
63	P-13	31.00	10.00	130.00	Open	97.49	1062.10	1062.10	0.00	0.00
65	P-14	32.00	10.00	130.00	Open	2.32	1061.30	1061.30	0.00	0.00
8606	P-14	257.00	3.00	130.00	Open	-6.56	825.50	825.55	0.05	0.00
68	P-15	43.00	10.00	130.00	Open	135.02	1062.30	1062.30	0.01	0.00
8607	P-15	297.00	3.00	130.00	Open	-6.56	1062.24	1062.30	0.06	0.00
8610	P-16	7.00	8.00	130.00	Open	2.39	1217.85	1217.85	0.00	0.00
71	P-16	43.00	10.00	130.00	Open	0.28	1062.02	1062.02	0.00	0.00
8611	P-17	6.00	8.00	130.00	Open	2.39	1068.85	1068.85	0.00	0.00
74	P-17	51.00	10.00	130.00	Open	164.78	1059.00	1058.99	0.01	0.00
77	P-18	53.00	10.00	130.00	Open	23.16	1064.91	1064.91	0.00	0.00
8613	P-18	627.00	20.00	130.00	Open	-772.43	1064.92	1065.00	0.08	0.00
80	P-19	57.00	10.00	130.00	Open	16.94	1064.62	1064.62	0.00	0.00
8615	P-19	655.00	30.00	130.00	Open	-36.50	1064.63	1064.63	0.00	0.00
83	P-20	72.00	10.00	130.00	Open	-221.48	1062.00	1062.03	0.03	0.00
8618	P-21	20.00	30.00	130.00	Open	-36.50	1064.63	1064.63	0.00	0.00
85	P-21	74.00	10.00	130.00	Open	179.12	1059.44	1059.42	0.02	0.00
88	P-22	84.00	10.00	130.00	Open	-230.80	1060.43	1060.47	0.03	0.00
8619	P-22	124.00	30.00	130.00	Open	-36.50	1064.63	1064.63	0.00	0.00
91	P-23	109.00	10.00	130.00	Open	36.92	1064.64	1064.63	0.00	0.00
94	P-24	133.00	10.00	130.00	Open	-236.22	1061.30	1061.36	0.06	0.00
96	P-25	134.00	10.00	130.00	Open	11.88	1216.98	1216.98	0.00	0.00
8628	P-26	100.00	36.00	130.00	Open	0.00	800.00	800.00	0.00	0.00
99	P-26	178.00	10.00	130.00	Open	41.07	1064.64	1064.64	0.00	0.00
8629	P-27	100.00	36.00	130.00	Open	0.00	1064.63	1064.63	0.00	0.00
102	P-27	154.00	10.00	130.00	Open	7.84	1062.02	1062.02	0.00	0.00
8656	P-28	3508.00	12.00	130.00	Open	42.97	1323.01	1322.98	0.03	0.00
105	P-28	161.00	10.00	130.00	Open	-231.36	1060.47	1060.53	0.07	0.00
107	P-29	164.00	10.00	130.00	Open	40.91	1064.64	1064.64	0.00	0.00
8660	P-30	53.00	10.00	130.00	Open	0.00	1670.00	1670.00	0.00	0.00
108	P-30	181.00	10.00	130.00	Open	41.75	1064.64	1064.64	0.00	0.00
110	P-31	189.00	10.00	130.00	Open	35.30	1064.62	1064.62	0.00	0.00
8661	P-31	4182.00	10.00	130.00	Open	0.00	1323.01	1323.01	0.00	0.00
112	P-32	214.00	10.00	130.00	Open	-170.39	1063.30	1063.35	0.05	0.00
8680	P-32	15015.00	12.00	130.00	Open	186.61	1062.93	1061.23	1.70	0.00
115	P-33	214.00	10.00	130.00	Open	7.29	1062.02	1062.02	0.00	0.00
8681	P-33	9718.00	20.00	130.00	Open	-473.95	1062.93	1063.44	0.51	0.00
116	P-34	219.00	10.00	130.00	Open	-231.71	1060.53	1060.62	0.09	0.00
8682	P-34	2712.00	16.00	130.00	Open	287.34	1062.93	1062.76	0.17	0.00
118	P-35	226.00	10.00	130.00	Open	27.30	1064.62	1064.62	0.00	0.00
8685	P-35	1000.00	20.00	130.00	Open	0.00	1200.00	1200.00	0.00	0.00
119	P-36	243.00	10.00	130.00	Open	-188.48	1063.41	1063.48	0.07	0.00
8686	P-36	1000.00	20.00	130.00	Open	0.00	1062.93	1062.93	0.00	0.00
8696	P-37	14541.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
122	P-37	246.00	10.00	130.00	Open	-229.89	1060.21	1060.31	0.10	0.00
125	P-38	264.00	10.00	130.00	Open	180.17	1063.15	1063.08	0.07	0.00
8698	P-38	11295.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
128	P-39	264.00	10.00	130.00	Open	-19.08	1064.90	1064.90	0.00	0.00
8700	P-39	14908.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8702	P-40	6907.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
131	P-40	292.00	10.00	130.00	Open	-115.63	1062.86	1062.90	0.03	0.00
8704	P-41	11943.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
132	P-41	296.00	10.00	130.00	Open	25.07	1064.92	1064.92	0.00	0.00
135	P-42	307.00	10.00	130.00	Open	-230.25	1060.31	1060.43	0.12	0.00
8706	P-42	4968.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8708	P-43	7025.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
136	P-43	313.00	10.00	130.00	Open	-233.83	1061.17	1061.30	0.13	0.00
138	P-44	323.00	10.00	130.00	Open	-108.82	1062.73	1062.77	0.03	0.00
141	P-45	374.00	10.00	130.00	Open	-228.94	1060.06	1060.21	0.15	0.00
8712	P-45	12618.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8714	P-46	20979.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
142	P-46	383.00	10.00	130.00	Open	-221.32	1061.86	1062.00	0.14	0.00
144	P-47	401.00	10.00	130.00	Open	180.73	1063.25	1063.15	0.10	0.00
8715	P-47	10795.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
146	P-48	414.00	10.00	130.00	Open	128.38	1062.30	1062.24	0.06	0.00
8717	P-48	1283.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8718	P-49	4641.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
148	P-49	539.00	10.00	130.00	Open	22.80	1064.91	1064.90	0.00	0.00
149	P-50	436.00	10.00	130.00	Open	135.18	1062.37	1062.30	0.07	0.00
151	P-51	482.00	10.00	130.00	Open	-159.60	1063.20	1063.30	0.10	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
153	P-52	491.00	10.00	130.00	Open	-159.04	1063.10	1063.20	0.10	0.00
8731	P-52	500.00	24.00	131.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8732	P-53	500.00	24.00	131.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
155	P-53	486.00	10.00	130.00	Open	16.71	1062.03	1062.02	0.00	0.00
157	P-54	498.00	10.00	130.00	Open	14.61	1216.98	1216.98	0.00	0.00
160	P-55	498.00	10.00	130.00	Open	-238.14	1061.64	1061.86	0.22	0.00
162	P-56	540.00	10.00	130.00	Open	-223.09	1059.49	1059.69	0.21	0.00
164	P-57	577.00	10.00	130.00	Open	-181.15	1063.91	1064.06	0.15	0.00
167	P-58	548.00	10.00	130.00	Open	135.84	1062.73	1062.65	0.08	0.00
169	P-59	572.00	10.00	130.00	Open	-174.31	1063.61	1063.74	0.14	0.00
172	P-60	580.00	10.00	130.00	Open	187.52	1063.41	1063.25	0.16	0.00
173	P-61	610.00	10.00	130.00	Open	-28.46	963.96	963.97	0.01	0.00
174	P-62	603.00	10.00	130.00	Open	135.33	1062.46	1062.37	0.09	0.00
176	P-63	654.00	10.00	130.00	Open	-237.78	1061.36	1061.64	0.28	0.00
177	P-64	697.00	10.00	130.00	Open	12.45	1216.98	1216.98	0.00	0.00
179	P-65	649.00	10.00	130.00	Open	-118.58	1062.90	1062.98	0.08	0.00
181	P-66	657.00	10.00	130.00	Open	12.85	1216.98	1216.98	0.00	0.00
182	P-67	665.00	10.00	130.00	Open	-174.87	1063.74	1063.91	0.16	0.00
183	P-68	713.00	10.00	130.00	Open	16.86	1062.03	1062.03	0.00	0.00
184	P-69	727.00	10.00	130.00	Open	13.82	1216.98	1216.98	0.00	0.00
186	P-70	736.00	10.00	130.00	Open	96.73	1062.10	1062.04	0.06	0.00
188	P-71	819.00	10.00	130.00	Open	-36.36	1064.62	1064.63	0.01	0.00
189	P-72	955.00	10.00	130.00	Open	176.45	1063.08	1062.84	0.24	0.00
191	P-73	907.00	10.00	130.00	Open	-224.55	1059.70	1060.05	0.35	0.00
192	P-74	923.00	10.00	130.00	Open	-110.58	1062.77	1062.86	0.10	0.00
193	P-75	964.00	10.00	130.00	Open	175.49	1062.84	1062.60	0.24	0.00
195	P-76	1201.00	10.00	130.00	Open	-165.95	1062.34	1062.60	0.27	0.00
197	P-77	1003.00	10.00	130.00	Open	14.22	1216.98	1216.98	0.00	0.00
198	P-78	1040.00	10.00	130.00	Open	-119.73	1062.98	1063.10	0.13	0.00
199	P-79	1036.00	10.00	130.00	Open	126.62	1062.24	1062.10	0.14	0.00
200	P-80	1064.00	10.00	130.00	Open	-172.55	1063.35	1063.61	0.25	0.00
201	P-81	1308.00	10.00	130.00	Open	24.72	1064.92	1064.91	0.01	0.00
202	P-82	1104.00	10.00	130.00	Open	192.49	1059.76	1059.44	0.32	0.00
204	P-83	1246.00	10.00	130.00	Open	135.68	1062.65	1062.46	0.19	0.00
205	P-84	1338.00	10.00	130.00	Open	-232.07	1060.62	1061.17	0.55	0.00
206	P-85	1422.00	10.00	130.00	Open	164.22	1058.99	1058.68	0.31	0.00
208	P-86	1698.00	10.00	130.00	Open	176.00	1059.42	1059.00	0.42	0.00
209	P-87	1.00	12.00	130.00	Open	81.55	1218.11	1218.11	0.00	0.00
212	P-88	1.00	12.00	130.00	Open	-0.08	1057.47	1057.47	0.00	0.00
215	P-89	1.00	12.00	130.00	Open	0.08	1057.47	1057.47	0.00	0.00
218	P-90	2.00	12.00	130.00	Open	-274.09	1064.45	1064.45	0.00	0.00
221	P-91	2.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
224	P-92	2.00	12.00	130.00	Open	262.16	1061.63	1061.63	0.00	0.00
227	P-93	3.00	12.00	130.00	Open	-0.23	981.48	981.48	0.00	0.00
230	P-94	4.00	12.00	130.00	Open	155.49	1059.82	1059.82	0.00	0.00
233	P-95	4.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
236	P-96	4.00	12.00	130.00	Open	262.79	1059.84	1059.84	0.00	0.00
239	P-97	4.00	12.00	130.00	Open	-0.37	1218.25	1218.25	0.00	0.00
242	P-98	4.00	12.00	130.00	Open	18.92	1218.03	1218.03	0.00	0.00
245	P-99	5.00	12.00	130.00	Open	7.14	1057.80	1057.80	0.00	0.00
248	P-100	5.00	12.00	130.00	Open	-22.70	1057.84	1057.84	0.00	0.00
251	P-101	5.00	12.00	130.00	Open	0.08	1064.44	1064.44	0.00	0.00
254	P-102	6.00	12.00	130.00	Open	-17.04	1060.89	1060.89	0.00	0.00
257	P-103	6.00	12.00	130.00	Open	-37.75	1060.02	1060.02	0.00	0.00
260	P-104	6.00	12.00	130.00	Open	0.28	1058.55	1058.55	0.00	0.00
263	P-105	6.00	12.00	130.00	Open	0.08	1064.76	1064.76	0.00	0.00
266	P-106	6.00	12.00	130.00	Open	0.60	1218.10	1218.10	0.00	0.00
269	P-107	6.00	12.00	130.00	Open	0.20	1218.10	1218.10	0.00	0.00
271	P-108	6.00	12.00	130.00	Open	0.20	1218.61	1218.61	0.00	0.00
274	P-109	6.00	12.00	130.00	Open	159.02	1059.94	1059.94	0.00	0.00
277	P-110	6.00	12.00	130.00	Open	-0.68	1058.61	1058.61	0.00	0.00
280	P-111	6.00	12.00	130.00	Open	-0.63	1058.66	1058.66	0.00	0.00
283	P-112	6.00	12.00	130.00	Open	0.08	1058.50	1058.50	0.00	0.00
286	P-113	7.00	12.00	130.00	Open	3.66	1057.80	1057.80	0.00	0.00
289	P-114	10.00	12.00	130.00	Open	-11.35	1057.47	1057.47	0.00	0.00
291	P-115	10.00	12.00	130.00	Open	-11.43	1057.47	1057.47	0.00	0.00
292	P-116	7.00	12.00	130.00	Open	0.20	1217.88	1217.88	0.00	0.00
295	P-117	7.00	12.00	130.00	Open	32.15	1218.35	1218.35	0.00	0.00
298	P-118	8.00	12.00	130.00	Open	-0.08	1060.02	1060.02	0.00	0.00
300	P-119	8.00	12.00	130.00	Open	0.28	1059.74	1059.74	0.00	0.00
303	P-120	8.00	12.00	130.00	Open	7.88	1060.81	1060.81	0.00	0.00
306	P-121	8.00	12.00	130.00	Open	11.58	1057.47	1057.47	0.00	0.00
308	P-122	8.00	12.00	130.00	Open	17.09	1218.03	1218.03	0.00	0.00
311	P-123	9.00	12.00	130.00	Open	0.29	1218.21	1218.21	0.00	0.00
314	P-124	9.00	12.00	130.00	Open	134.11	1061.15	1061.15	0.00	0.00
317	P-125	10.00	12.00	130.00	Open	-0.28	1058.66	1058.66	0.00	0.00
320	P-126	10.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
323	P-127	10.00	12.00	130.00	Open	12.96	1058.76	1058.76	0.00	0.00
326	P-128	11.00	12.00	130.00	Open	0.29	1218.38	1218.38	0.00	0.00
329	P-129	11.00	12.00	130.00	Open	4.01	1057.80	1057.80	0.00	0.00
331	P-130	11.00	12.00	130.00	Open	-0.08	1064.51	1064.51	0.00	0.00
334	P-131	11.00	12.00	130.00	Open	16.87	1064.62	1064.62	0.00	0.00
336	P-132	11.00	12.00	130.00	Open	0.08	1061.62	1061.62	0.00	0.00
339	P-133	11.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
342	P-134	12.00	12.00	130.00	Open	218.85	1060.04	1060.04	0.00	0.00
345	P-135	12.00	12.00	130.00	Open	45.94	1059.76	1059.76	0.00	0.00
348	P-136	12.00	12.00	130.00	Open	0.08	1062.32	1062.32	0.00	0.00
351	P-137	12.00	12.00	130.00	Open	42.85	1322.98	1322.98	0.00	0.00
354	P-138	12.00	12.00	130.00	Open	-0.20	1217.93	1217.93	0.00	0.00
357	P-139	13.00	12.00	130.00	Open	164.43	1060.34	1060.33	0.00	0.00
360	P-140	13.00	12.00	130.00	Open	170.96	1064.51	1064.51	0.00	0.00
362	P-141	13.00	12.00	130.00	Open	-611.61	1064.75	1064.76	0.01	0.00
365	P-142	14.00	12.00	130.00	Open	-2.70	1059.66	1059.66	0.00	0.00
368	P-143	14.00	12.00	130.00	Open	-74.16	1060.92	1060.92	0.00	0.00
371	P-144	14.00	12.00	130.00	Open	-0.20	1219.00	1219.00	0.00	0.00
374	P-145	15.00	12.00	130.00	Open	-0.08	1058.66	1058.66	0.00	0.00
376	P-146	15.00	12.00	130.00	Open	-144.47	1058.58	1058.58	0.00	0.00
379	P-147	16.00	12.00	130.00	Open	257.22	1215.48	1215.48	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
382	P-148	16.00	12.00	130.00	Open	316.09	1059.05	1059.04	0.00	0.00
385	P-149	16.00	12.00	130.00	Open	-206.39	1064.88	1064.88	0.00	0.00
388	P-150	16.00	12.00	130.00	Open	-0.08	1057.82	1057.82	0.00	0.00
391	P-151	17.00	12.00	130.00	Open	-81.86	1058.70	1058.70	0.00	0.00
394	P-152	18.00	12.00	130.00	Open	-2.55	1059.66	1059.66	0.00	0.00
396	P-153	25.00	12.00	130.00	Open	0.48	1060.09	1060.09	0.00	0.00
399	P-154	27.00	12.00	130.00	Open	-0.88	1057.91	1057.91	0.00	0.00
402	P-155	21.00	12.00	130.00	Open	-265.95	1063.98	1063.98	0.00	0.00
405	P-156	23.00	12.00	130.00	Open	0.08	1064.75	1064.75	0.00	0.00
408	P-157	24.00	12.00	130.00	Open	-180.77	1060.63	1060.63	0.00	0.00
411	P-158	24.00	12.00	130.00	Open	0.20	1217.99	1217.99	0.00	0.00
414	P-159	24.00	12.00	130.00	Open	-0.55	981.48	981.48	0.00	0.00
417	P-160	24.00	12.00	130.00	Open	262.94	1216.98	1216.98	0.01	0.00
419	P-161	25.00	12.00	130.00	Open	131.98	1061.06	1061.06	0.00	0.00
422	P-162	28.00	12.00	130.00	Open	-159.14	1058.40	1058.40	0.00	0.00
425	P-163	29.00	12.00	130.00	Open	-44.29	1061.64	1061.64	0.00	0.00
428	P-164	30.00	12.00	130.00	Open	-0.08	1062.90	1062.90	0.00	0.00
431	P-165	31.00	12.00	130.00	Open	-81.50	1058.70	1058.70	0.00	0.00
433	P-166	31.00	12.00	130.00	Open	-220.12	1061.11	1061.12	0.00	0.00
436	P-167	32.00	12.00	130.00	Open	-220.22	1063.97	1063.98	0.01	0.00
438	P-168	35.00	12.00	130.00	Open	0.48	1060.02	1060.02	0.00	0.00
441	P-169	38.00	12.00	130.00	Open	-273.73	1064.44	1064.45	0.01	0.00
442	P-170	38.00	12.00	130.00	Open	130.72	1059.21	1059.21	0.00	0.00
445	P-171	39.00	12.00	130.00	Open	203.19	1057.96	1057.96	0.01	0.00
448	P-172	41.00	12.00	130.00	Open	-211.76	1063.78	1063.79	0.01	0.00
451	P-173	41.00	12.00	130.00	Open	168.23	1064.28	1064.28	0.00	0.00
454	P-174	41.00	12.00	130.00	Open	-149.42	1060.33	1060.33	0.00	0.00
457	P-175	42.00	12.00	130.00	Open	285.76	1218.04	1218.02	0.01	0.00
460	P-176	61.00	12.00	130.00	Open	0.68	1218.21	1218.21	0.00	0.00
462	P-177	45.00	12.00	130.00	Open	85.37	1218.25	1218.25	0.00	0.00
464	P-178	48.00	12.00	130.00	Open	16.61	1061.62	1061.62	0.00	0.00
466	P-179	46.00	12.00	130.00	Open	17.51	981.48	981.48	0.00	0.00
469	P-180	46.00	12.00	130.00	Open	16.65	981.48	981.48	0.00	0.00
471	P-181	47.00	12.00	130.00	Open	-22.00	1057.84	1057.84	0.00	0.00
474	P-182	49.00	12.00	130.00	Open	-196.58	1063.58	1063.58	0.01	0.00
477	P-183	50.00	12.00	130.00	Open	-90.85	1058.66	1058.66	0.00	0.00
479	P-184	50.00	12.00	130.00	Open	13.90	981.48	981.48	0.00	0.00
482	P-185	57.00	12.00	130.00	Open	137.46	1064.06	1064.06	0.00	0.00
484	P-186	57.00	12.00	130.00	Open	-37.91	1060.02	1060.02	0.00	0.00
485	P-187	68.00	12.00	130.00	Open	0.28	1061.22	1061.22	0.00	0.00
488	P-188	60.00	12.00	130.00	Open	220.74	1058.25	1058.25	0.01	0.00
491	P-189	62.00	12.00	130.00	Open	-151.06	1060.81	1060.81	0.00	0.00
494	P-190	67.00	12.00	130.00	Open	0.20	1215.51	1215.51	0.00	0.00
497	P-191	63.00	12.00	130.00	Open	0.38	1064.75	1064.75	0.00	0.00
501	P-193	65.00	12.00	130.00	Open	2.24	1057.80	1057.80	0.00	0.00
504	P-194	66.00	12.00	130.00	Open	-219.01	1061.03	1061.04	0.01	0.00
507	P-195	66.00	12.00	130.00	Open	0.26	1322.91	1322.91	0.00	0.00
510	P-196	67.00	12.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
513	P-197	69.00	12.00	130.00	Open	72.09	1218.03	1218.03	0.00	0.00
516	P-198	69.00	12.00	130.00	Open	211.93	1058.13	1058.12	0.01	0.00
519	P-199	71.00	12.00	130.00	Open	4.60	1058.67	1058.67	0.00	0.00
522	P-200	72.00	12.00	130.00	Open	125.64	1059.16	1059.16	0.00	0.00
525	P-201	73.00	12.00	130.00	Open	12.08	1322.91	1322.91	0.00	0.00
528	P-202	73.00	12.00	130.00	Open	0.08	1060.33	1060.33	0.00	0.00
530	P-203	73.00	12.00	130.00	Open	23.29	1057.74	1057.74	0.00	0.00
533	P-204	78.00	12.00	130.00	Open	174.94	1058.41	1058.40	0.01	0.00
535	P-205	75.00	12.00	130.00	Open	264.43	1062.35	1062.34	0.02	0.00
538	P-206	76.00	12.00	130.00	Open	-131.17	1057.88	1057.88	0.00	0.00
541	P-207	78.00	12.00	130.00	Open	-14.32	1064.63	1064.63	0.00	0.00
544	P-208	80.00	12.00	130.00	Open	81.75	1218.12	1218.11	0.00	0.00
546	P-209	83.00	12.00	130.00	Open	-270.23	1064.19	1064.21	0.02	0.00
549	P-210	84.00	12.00	130.00	Open	62.05	1217.99	1217.99	0.00	0.00
551	P-211	85.00	12.00	130.00	Open	277.20	1061.83	1061.81	0.02	0.00
554	P-212	86.00	12.00	130.00	Open	38.63	981.49	981.49	0.00	0.00
557	P-213	86.00	12.00	130.00	Open	-163.03	1059.32	1059.33	0.01	0.00
560	P-214	87.00	12.00	130.00	Open	-223.01	1058.49	1058.50	0.01	0.00
562	P-215	88.00	12.00	130.00	Open	64.46	1218.02	1218.02	0.00	0.00
565	P-216	91.00	12.00	130.00	Open	83.68	1060.81	1060.81	0.00	0.00
568	P-217	91.00	12.00	130.00	Open	157.34	1064.21	1064.20	0.01	0.00
571	P-218	94.00	12.00	130.00	Open	9.83	1218.03	1218.03	0.00	0.00
574	P-219	101.00	12.00	130.00	Open	1.78	1057.84	1057.84	0.00	0.00
577	P-220	102.00	12.00	130.00	Open	-149.26	1060.32	1060.33	0.01	0.00
579	P-221	102.00	12.00	130.00	Open	0.63	1059.74	1059.74	0.00	0.00
581	P-222	103.00	12.00	130.00	Open	0.48	1061.64	1061.64	0.00	0.00
583	P-223	106.00	12.00	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
585	P-224	132.00	12.00	130.00	Open	8.46	1322.91	1322.91	0.00	0.00
587	P-225	108.00	12.00	130.00	Open	138.98	1064.10	1064.09	0.01	0.00
590	P-226	113.00	12.00	130.00	Open	0.11	1322.95	1322.95	0.00	0.00
593	P-227	113.00	12.00	130.00	Open	60.86	1217.93	1217.93	0.00	0.00
595	P-228	114.00	12.00	130.00	Open	-143.76	1058.54	1058.55	0.01	0.00
597	P-229	114.00	12.00	130.00	Open	609.16	1061.32	1061.21	0.12	0.00
600	P-230	151.00	12.00	130.00	Open	44.12	1057.84	1057.83	0.00	0.00
603	P-231	138.00	12.00	130.00	Open	257.22	1215.51	1215.48	0.03	0.00
604	P-232	117.00	12.00	130.00	Open	54.65	1217.88	1217.88	0.00	0.00
606	P-233	125.00	12.00	130.00	Open	-138.59	1059.28	1059.29	0.01	0.00
609	P-234	124.00	12.00	130.00	Open	262.23	1060.23	1060.20	0.03	0.00
612	P-235	126.00	12.00	130.00	Open	-260.11	1059.45	1059.47	0.03	0.00
615	P-236	128.00	12.00	130.00	Open	280.61	1060.36	1060.33	0.03	0.00
617	P-237	156.00	12.00	130.00	Open	1.73	1061.12	1061.12	0.00	0.00
619	P-238	130.00	12.00	130.00	Open	116.15	1059.11	1059.11	0.01	0.00
622	P-239	130.00	12.00	130.00	Open	0.11	1322.92	1322.92	0.00	0.00
625	P-240	134.00	12.00	130.00	Open	-217.10	1060.97	1060.99	0.02	0.00
628	P-241	136.00	12.00	130.00	Open	0.00	981.48	981.48	0.00	0.00
630	P-242	136.00	12.00	130.00	Open	-0.68	1061.21	1061.21	0.00	0.00
633	P-243	136.00	12.00	130.00	Open	95.39	1059.05	1059.05	0.00	0.00
635	P-244	137.00	12.00	130.00	Open	-92.31	1058.69	1058.69	0.00	0.00
638	P-245	137.00	12.00	130.00	Open	236.18	1061.56	1061.53	0.02	0.00
641	P-246	139.00	12.00	130.00	Open	-71.52	1064.13	1064.13	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
644	P-247	142.00	12.00	130.00	Open	-272.14	1064.33	1064.36	0.03	0.00
647	P-248	141.00	12.00	130.00	Open	-188.55	1063.48	1063.49	0.02	0.00
649	P-249	143.00	12.00	130.00	Open	-49.03	1064.07	1064.07	0.00	0.00
652	P-250	147.00	12.00	130.00	Open	251.17	1061.75	1061.72	0.03	0.00
655	P-251	149.00	12.00	130.00	Open	-36.61	1060.02	1060.02	0.00	0.00
657	P-252	154.00	12.00	130.00	Open	57.48	1056.73	1056.73	0.00	0.00
660	P-253	151.00	12.00	130.00	Open	104.22	1059.75	1059.74	0.01	0.00
663	P-254	202.00	12.00	130.00	Open	24.79	1218.03	1218.03	0.00	0.00
665	P-255	155.00	12.00	130.00	Open	-70.61	1064.12	1064.12	0.00	0.00
668	P-256	158.00	12.00	130.00	Open	-101.70	1059.76	1059.76	0.01	0.00
670	P-257	160.00	12.00	130.00	Open	11.20	1322.92	1322.92	0.00	0.00
673	P-258	162.00	12.00	130.00	Open	138.21	1057.55	1057.54	0.01	0.00
676	P-259	162.00	12.00	130.00	Open	608.53	1061.21	1061.05	0.16	0.00
678	P-260	194.00	12.00	130.00	Open	-1.11	981.48	981.48	0.00	0.00
679	P-261	166.00	12.00	130.00	Open	38.65	1322.95	1322.95	0.00	0.00
681	P-262	168.00	12.00	130.00	Open	-104.37	1059.75	1059.75	0.01	0.00
683	P-263	170.00	12.00	130.00	Open	15.25	1322.92	1322.92	0.00	0.00
685	P-264	178.00	12.00	130.00	Open	-210.09	1063.72	1063.75	0.03	0.00
688	P-265	220.00	12.00	130.00	Open	261.32	1060.09	1060.04	0.05	0.00
689	P-266	184.00	12.00	130.00	Open	-13.59	1218.60	1218.60	0.00	0.00
692	P-267	174.00	12.00	130.00	Open	-0.60	1219.00	1219.00	0.00	0.00
694	P-268	184.00	12.00	130.00	Open	334.11	1062.42	1062.35	0.06	0.00
696	P-269	178.00	12.00	130.00	Open	284.07	1062.15	1062.10	0.04	0.00
699	P-270	179.00	12.00	130.00	Open	0.11	1322.97	1322.97	0.00	0.00
702	P-271	183.00	12.00	130.00	Open	0.60	1218.03	1218.03	0.00	0.00
703	P-272	183.00	12.00	130.00	Open	27.71	1057.47	1057.47	0.00	0.00
706	P-273	188.00	12.00	130.00	Open	16.32	1218.03	1218.03	0.00	0.00
707	P-274	187.00	12.00	130.00	Open	228.07	1061.53	1061.50	0.03	0.00
709	P-275	187.00	12.00	130.00	Open	129.76	1059.21	1059.20	0.01	0.00
711	P-276	188.00	12.00	130.00	Open	49.66	1217.85	1217.85	0.00	0.00
714	P-277	190.00	12.00	130.00	Open	41.82	1322.98	1322.98	0.00	0.00
717	P-278	206.00	12.00	130.00	Open	10.11	1064.61	1064.61	0.00	0.00
720	P-279	204.00	12.00	130.00	Open	53.50	1060.81	1060.81	0.00	0.00
723	P-280	206.00	12.00	130.00	Open	39.18	981.49	981.49	0.00	0.00
725	P-281	208.00	12.00	130.00	Open	136.62	1059.85	1059.84	0.01	0.00
727	P-282	209.00	12.00	130.00	Open	70.32	1218.03	1218.02	0.00	0.00
728	P-283	207.00	12.00	130.00	Open	103.04	1059.06	1059.05	0.01	0.00
730	P-284	208.00	12.00	130.00	Open	120.06	1218.38	1218.37	0.01	0.00
732	P-285	210.00	12.00	130.00	Open	-223.16	1058.50	1058.54	0.03	0.00
733	P-286	212.00	12.00	130.00	Open	-211.60	1063.75	1063.78	0.03	0.00
734	P-287	233.00	12.00	130.00	Open	612.07	1065.00	1064.76	0.24	0.00
8749	P-287A	116.00	12.00	130.00	Open	0.00	1064.76	1064.76	0.00	0.00
8750	P-287B	117.00	12.00	130.00	Open	0.00	1065.00	1065.00	0.00	0.00
736	P-288	215.00	12.00	130.00	Open	-61.33	1060.90	1060.91	0.00	0.00
739	P-289	292.00	12.00	130.00	Open	-377.59	1064.88	1065.00	0.12	0.00
741	P-290	220.00	12.00	130.00	Open	-219.37	1061.04	1061.07	0.03	0.00
743	P-291	220.00	12.00	130.00	Open	-260.86	1059.47	1059.52	0.05	0.00
745	P-292	221.00	12.00	130.00	Open	-42.12	1060.04	1060.04	0.00	0.00
748	P-293	221.00	12.00	130.00	Open	32.55	1218.35	1218.35	0.00	0.00
750	P-294	225.00	12.00	130.00	Open	-40.93	1060.04	1060.04	0.00	0.00
752	P-295	226.00	12.00	130.00	Open	217.03	1058.25	1058.21	0.03	0.00
754	P-296	306.00	12.00	130.00	Open	-371.70	1064.88	1065.00	0.12	0.00
755	P-297	241.00	12.00	130.00	Open	0.48	1058.67	1058.67	0.00	0.00
757	P-298	240.00	12.00	130.00	Open	-217.14	1063.87	1063.90	0.04	0.00
760	P-299	245.00	12.00	130.00	Open	51.71	1060.81	1060.81	0.00	0.00
761	P-300	246.00	12.00	130.00	Open	-238.44	1059.29	1059.33	0.04	0.00
764	P-301	249.00	12.00	130.00	Open	-213.27	1063.83	1063.87	0.04	0.00
766	P-302	252.00	12.00	130.00	Open	-219.36	1061.07	1061.11	0.04	0.00
767	P-303	252.00	12.00	130.00	Open	-202.49	1060.78	1060.81	0.03	0.00
769	P-304	318.00	12.00	130.00	Open	31.16	1218.03	1218.03	0.00	0.00
771	P-305	255.00	12.00	130.00	Open	-86.92	1057.69	1057.70	0.01	0.00
774	P-306	257.00	12.00	130.00	Open	11.20	1057.47	1057.47	0.00	0.00
776	P-307	260.00	12.00	130.00	Open	-258.55	1059.39	1059.45	0.05	0.00
778	P-308	260.00	12.00	130.00	Open	12.14	1057.47	1057.47	0.00	0.00
779	P-309	268.00	12.00	130.00	Open	83.38	1060.80	1060.79	0.01	0.00
782	P-310	264.00	12.00	130.00	Open	-216.14	1060.93	1060.97	0.04	0.00
784	P-311	305.00	12.00	130.00	Open	84.44	1060.82	1060.81	0.01	0.00
786	P-312	266.00	12.00	130.00	Open	137.57	1064.14	1064.12	0.02	0.00
789	P-313	273.00	12.00	130.00	Open	-18.40	1060.89	1060.89	0.00	0.00
791	P-314	272.00	12.00	130.00	Open	85.00	1060.83	1060.82	0.01	0.00
793	P-315	278.00	12.00	130.00	Open	16.96	981.48	981.48	0.00	0.00
794	P-316	279.00	12.00	130.00	Open	-258.39	1059.33	1059.39	0.06	0.00
795	P-317	271.00	12.00	130.00	Open	155.62	1064.16	1064.14	0.02	0.00
797	P-318	271.00	12.00	130.00	Open	5.65	1322.91	1322.91	0.00	0.00
800	P-319	272.00	12.00	130.00	Open	-218.25	1060.99	1061.03	0.04	0.00
801	P-320	273.00	12.00	130.00	Open	64.42	1057.48	1057.47	0.00	0.00
803	P-321	285.00	12.00	130.00	Open	-14.08	1218.60	1218.60	0.00	0.00
805	P-322	282.00	12.00	130.00	Open	132.34	1061.07	1061.06	0.02	0.00
807	P-323	282.00	12.00	130.00	Open	216.48	1058.21	1058.17	0.04	0.00
809	P-324	287.00	12.00	130.00	Open	0.36	1057.47	1057.47	0.00	0.00
811	P-325	290.00	12.00	130.00	Open	212.08	1058.17	1058.13	0.04	0.00
812	P-326	407.00	12.00	130.00	Open	262.71	1061.72	1061.63	0.09	0.00
813	P-327	296.00	12.00	130.00	Open	28.83	1322.92	1322.92	0.00	0.00
816	P-328	304.00	12.00	130.00	Open	-40.22	1061.63	1061.63	0.00	0.00
819	P-329	304.00	12.00	130.00	Open	176.72	1061.06	1061.02	0.03	0.00
821	P-330	313.00	12.00	130.00	Open	141.00	1060.88	1060.86	0.02	0.00
824	P-331	354.00	12.00	130.00	Open	184.98	1061.22	1061.18	0.04	0.00
826	P-332	405.00	12.00	130.00	Open	7.86	1322.91	1322.91	0.00	0.00
828	P-333	314.00	12.00	130.00	Open	83.69	1218.21	1218.20	0.01	0.00
830	P-334	312.00	12.00	130.00	Open	-610.84	1062.90	1063.22	0.32	0.00
833	P-335	309.00	12.00	130.00	Open	1.93	1057.84	1057.84	0.00	0.00
834	P-336	318.00	12.00	130.00	Open	-212.71	1063.79	1063.83	0.05	0.00
835	P-337	313.00	12.00	130.00	Open	85.35	1060.83	1060.83	0.01	0.00
837	P-338	311.00	12.00	130.00	Open	135.01	1061.12	1061.10	0.02	0.00
839	P-339	313.00	12.00	130.00	Open	-97.43	1059.69	1059.70	0.01	0.00
842	P-340	323.00	12.00	130.00	Open	-0.48	1322.91	1322.91	0.00	0.00
843	P-341	324.00	12.00	130.00	Open	167.68	1064.28	1064.25	0.03	0.00
845	P-342	318.00	12.00	130.00	Open	14.14	1322.92	1322.92	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
847	P-343	330.00	12.00	130.00	Open	170.81	1064.51	1064.48	0.03	0.00
849	P-344	324.00	12.00	130.00	Open	-155.22	1058.75	1058.78	0.03	0.00
852	P-345	323.00	12.00	130.00	Open	60.30	1059.73	1059.73	0.00	0.00
855	P-346	324.00	12.00	130.00	Open	253.08	1061.81	1061.75	0.06	0.00
856	P-347	327.00	12.00	130.00	Open	41.14	1322.97	1322.96	0.00	0.00
858	P-348	342.00	12.00	130.00	Open	-161.72	1059.29	1059.32	0.03	0.00
859	P-349	332.00	12.00	130.00	Open	225.25	1061.38	1061.33	0.05	0.00
862	P-350	339.00	12.00	130.00	Open	81.42	1059.74	1059.73	0.01	0.00
863	P-351	337.00	12.00	130.00	Open	226.36	1061.44	1061.38	0.05	0.00
865	P-352	338.00	12.00	130.00	Open	82.27	1060.78	1060.78	0.01	0.00
867	P-353	355.00	12.00	130.00	Open	16.76	1061.62	1061.62	0.00	0.00
869	P-354	339.00	12.00	130.00	Open	282.35	1218.02	1217.94	0.08	0.00
871	P-355	341.00	12.00	130.00	Open	-137.84	1059.26	1059.28	0.02	0.00
873	P-356	363.00	12.00	130.00	Open	-12.78	1064.63	1064.63	0.00	0.00
876	P-357	342.00	12.00	130.00	Open	-132.28	1059.21	1059.23	0.02	0.00
878	P-358	347.00	12.00	130.00	Open	-60.22	1057.74	1057.75	0.00	0.00
880	P-359	348.00	12.00	130.00	Open	29.57	1322.93	1322.93	0.00	0.00
883	P-360	363.00	12.00	130.00	Open	-90.50	1058.64	1058.66	0.01	0.00
885	P-361	353.00	12.00	130.00	Open	-273.38	1064.36	1064.44	0.08	0.00
886	P-362	363.00	12.00	130.00	Open	69.61	1062.35	1062.35	0.01	0.00
888	P-363	357.00	12.00	130.00	Open	-58.56	1060.90	1060.90	0.00	0.00
890	P-364	360.00	12.00	130.00	Open	-61.18	1057.75	1057.75	0.01	0.00
892	P-365	361.00	12.00	130.00	Open	83.53	1060.81	1060.80	0.01	0.00
893	P-366	359.00	12.00	130.00	Open	14.60	1064.62	1064.62	0.00	0.00
896	P-367	454.00	12.00	130.00	Open	-86.26	1058.59	1058.61	0.01	0.00
898	P-368	379.00	12.00	130.00	Open	-85.30	1058.58	1058.59	0.01	0.00
899	P-369	366.00	12.00	130.00	Open	82.82	1060.79	1060.78	0.01	0.00
900	P-370	365.00	12.00	130.00	Open	-46.84	1064.07	1064.07	0.00	0.00
902	P-371	367.00	12.00	130.00	Open	-261.17	1059.66	1059.74	0.08	0.00
905	P-372	379.00	12.00	130.00	Open	2.59	1057.80	1057.80	0.00	0.00
906	P-373	370.00	12.00	130.00	Open	-93.07	1058.69	1058.70	0.01	0.00
908	P-374	532.00	12.00	130.00	Open	262.08	1060.20	1060.09	0.11	0.00
909	P-375	375.00	12.00	130.00	Open	119.66	1218.37	1218.35	0.02	0.00
910	P-376	381.00	12.00	130.00	Open	-71.17	1064.12	1064.13	0.01	0.00
911	P-377	409.00	12.00	130.00	Open	236.74	1061.63	1061.56	0.07	0.00
912	P-378	470.00	12.00	130.00	Open	262.23	1059.84	1059.74	0.10	0.00
913	P-379	387.00	12.00	130.00	Open	-133.66	1058.66	1058.68	0.02	0.00
916	P-380	385.00	12.00	130.00	Open	136.62	1064.12	1064.10	0.02	0.00
917	P-381	387.00	12.00	130.00	Open	0.79	1059.74	1059.74	0.00	0.00
918	P-382	392.00	12.00	130.00	Open	0.38	1064.76	1064.76	0.00	0.00
920	P-383	427.00	12.00	130.00	Open	-2.44	1057.91	1057.91	0.00	0.00
922	P-384	411.00	12.00	130.00	Open	140.64	1060.86	1060.83	0.03	0.00
923	P-385	396.00	12.00	130.00	Open	134.65	1061.10	1061.07	0.02	0.00
924	P-386	400.00	12.00	130.00	Open	277.75	1217.08	1216.98	0.09	0.00
926	P-387	401.00	12.00	130.00	Open	227.32	1061.50	1061.44	0.07	0.00
927	P-388	405.00	12.00	130.00	Open	79.47	1058.55	1058.54	0.01	0.00
929	P-389	407.00	12.00	130.00	Open	-2.99	1057.91	1057.91	0.00	0.00
931	P-390	407.00	12.00	130.00	Open	-135.00	1059.23	1059.26	0.03	0.00
932	P-391	410.00	12.00	130.00	Open	-51.61	1064.10	1064.10	0.00	0.00
935	P-392	444.00	12.00	130.00	Open	-44.77	1064.06	1064.06	0.00	0.00
937	P-393	412.00	12.00	130.00	Open	166.92	1064.25	1064.21	0.04	0.00
938	P-394	412.00	12.00	130.00	Open	-93.23	1058.70	1058.71	0.01	0.00
940	P-395	420.00	12.00	130.00	Open	-149.33	1057.88	1057.92	0.03	0.00
942	P-396	424.00	12.00	130.00	Open	-19.67	1218.61	1218.61	0.00	0.00
944	P-397	420.00	12.00	130.00	Open	-175.76	1060.45	1060.50	0.04	0.00
947	P-398	552.00	12.00	130.00	Open	7.02	1057.92	1057.92	0.00	0.00
949	P-399	438.00	12.00	130.00	Open	12.51	1060.81	1060.81	0.00	0.00
951	P-400	431.00	12.00	130.00	Open	84.97	1218.25	1218.24	0.01	0.00
953	P-401	433.00	12.00	130.00	Open	210.62	1058.12	1058.06	0.06	0.00
955	P-402	440.00	12.00	130.00	Open	-53.67	1064.11	1064.12	0.00	0.00
957	P-403	514.00	12.00	130.00	Open	-144.12	1058.55	1058.58	0.04	0.00
958	P-404	447.00	12.00	130.00	Open	-91.00	1058.66	1058.67	0.01	0.00
960	P-405	445.00	12.00	130.00	Open	-217.50	1063.90	1063.97	0.07	0.00
961	P-406	448.00	12.00	130.00	Open	-21.41	1057.82	1057.82	0.00	0.00
963	P-407	454.00	12.00	130.00	Open	262.05	1216.98	1216.88	0.10	0.00
965	P-408	454.00	12.00	130.00	Open	-38.46	1060.02	1060.02	0.00	0.00
967	P-409	455.00	12.00	130.00	Open	-155.37	1058.78	1058.82	0.04	0.00
969	P-410	510.00	12.00	130.00	Open	133.76	1061.15	1061.12	0.03	0.00
970	P-411	508.00	12.00	130.00	Open	170.30	1064.43	1064.39	0.05	0.00
973	P-412	494.00	12.00	130.00	Open	-20.07	1218.61	1218.61	0.00	0.00
975	P-413	464.00	12.00	130.00	Open	61.81	1056.74	1056.73	0.01	0.00
977	P-414	465.00	12.00	130.00	Open	156.58	1064.20	1064.16	0.04	0.00
978	P-415	465.00	12.00	130.00	Open	-578.02	1064.45	1064.88	0.43	0.00
979	P-416	465.00	12.00	130.00	Open	278.91	1061.94	1061.83	0.11	0.00
981	P-417	470.00	12.00	130.00	Open	26.30	1057.82	1057.82	0.00	0.00
984	P-418	473.00	12.00	130.00	Open	105.75	1059.11	1059.09	0.02	0.00
986	P-419	479.00	12.00	130.00	Open	-237.73	1059.12	1059.20	0.08	0.00
989	P-420	479.00	12.00	130.00	Open	135.67	1061.18	1061.15	0.03	0.00
990	P-421	488.00	12.00	130.00	Open	-45.53	1064.06	1064.06	0.00	0.00
992	P-422	480.00	12.00	130.00	Open	41.37	1322.97	1322.97	0.00	0.00
994	P-423	482.00	12.00	130.00	Open	89.18	1058.64	1058.63	0.01	0.00
996	P-424	484.00	12.00	130.00	Open	-154.86	1058.71	1058.75	0.04	0.00
997	P-425	485.00	12.00	130.00	Open	43.76	1057.83	1057.83	0.00	0.00
999	P-426	506.00	12.00	130.00	Open	-1.64	1322.92	1322.92	0.00	0.00
1001	P-427	488.00	12.00	130.00	Open	170.66	1064.48	1064.43	0.05	0.00
1002	P-428	490.00	12.00	130.00	Open	-46.28	1064.06	1064.07	0.00	0.00
1003	P-429	501.00	12.00	130.00	Open	11.77	1064.62	1064.62	0.00	0.00
1006	P-430	492.00	12.00	130.00	Open	286.79	1062.76	1062.63	0.12	0.00
1009	P-431	495.00	12.00	130.00	Open	-53.52	1064.11	1064.11	0.01	0.00
1011	P-432	499.00	12.00	130.00	Open	0.23	1064.76	1064.76	0.00	0.00
1012	P-433	499.00	12.00	130.00	Open	-51.05	1064.09	1064.10	0.01	0.00
1014	P-434	501.00	12.00	130.00	Open	57.48	981.50	981.49	0.01	0.00
1015	P-435	496.00	12.00	130.00	Open	116.30	1059.13	1059.11	0.02	0.00
1017	P-436	496.00	12.00	130.00	Open	82.95	1057.49	1057.48	0.01	0.00
1019	P-437	497.00	12.00	130.00	Open	-237.88	1059.20	1059.29	0.09	0.00
1020	P-438	498.00	12.00	130.00	Open	138.42	1064.09	1064.06	0.03	0.00
1021	P-439	500.00	12.00	130.00	Open	26.56	1322.92	1322.92	0.00	0.00
1023	P-440	528.00	12.00	130.00	Open	175.97	1061.02	1060.97	0.05	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream	Downstream	Headloss (ft)	Headloss Gradient (ft/1000ft)
							Hydraulic Grade (ft)	Hydraulic Grade (ft)		
1025	P-441	504.00	12.00	130.00	Open	19.91	1058.76	1058.76	0.00	0.00
1027	P-442	528.00	12.00	130.00	Open	-198.49	1063.66	1063.72	0.07	0.00
1029	P-443	506.00	12.00	130.00	Open	116.65	1059.16	1059.13	0.02	0.00
1030	P-444	506.00	12.00	130.00	Open	-236.67	1058.82	1058.91	0.09	0.00
1032	P-445	511.00	12.00	130.00	Open	-21.24	1057.84	1057.84	0.00	0.00
1034	P-446	512.00	12.00	130.00	Open	169.95	1064.39	1064.34	0.05	0.00
1036	P-447	537.00	12.00	130.00	Open	10.26	1064.61	1064.61	0.00	0.00
1038	P-448	602.00	12.00	130.00	Open	-0.08	981.48	981.48	0.00	0.00
1040	P-449	520.00	12.00	130.00	Open	36.92	1057.83	1057.83	0.00	0.00
1042	P-450	579.00	12.00	130.00	Open	-22.06	1218.62	1218.62	0.00	0.00
1045	P-451	853.00	12.00	130.00	Open	-221.70	1058.25	1058.39	0.13	0.00
1047	P-452	520.00	12.00	130.00	Open	-0.23	1062.90	1062.90	0.00	0.00
1049	P-453	529.00	12.00	130.00	Open	-270.79	1064.21	1064.33	0.12	0.00
1050	P-454	525.00	12.00	130.00	Open	14.44	1064.62	1064.62	0.00	0.00
1052	P-455	660.00	12.00	130.00	Open	128.00	1059.20	1059.16	0.04	0.00
1053	P-456	531.00	12.00	130.00	Open	-91.96	1058.67	1058.69	0.02	0.00
1054	P-457	692.00	12.00	130.00	Open	7.34	1322.91	1322.91	0.00	0.00
1056	P-458	549.00	12.00	130.00	Open	81.92	1057.69	1057.67	0.01	0.00
1059	P-459	591.00	12.00	130.00	Open	168.79	1064.34	1064.28	0.06	0.00
1060	P-460	540.00	12.00	130.00	Open	22.22	1057.82	1057.81	0.00	0.00
1062	P-461	543.00	12.00	130.00	Open	154.69	1057.59	1057.55	0.04	0.00
1064	P-462	543.00	12.00	130.00	Open	11.15	1060.81	1060.81	0.00	0.00
1065	P-463	549.00	12.00	130.00	Open	13.69	1064.62	1064.62	0.00	0.00
1067	P-464	561.00	12.00	130.00	Open	-42.40	1060.04	1060.04	0.00	0.00
1068	P-465	567.00	12.00	130.00	Open	610.22	1061.90	1061.32	0.58	0.00
1070	P-466	565.00	12.00	130.00	Open	1.06	1060.02	1060.02	0.00	0.00
1072	P-467	568.00	12.00	130.00	Open	0.23	1064.75	1064.75	0.00	0.00
1073	P-468	571.00	12.00	130.00	Open	17.49	1218.03	1218.03	0.00	0.00
1074	P-469	582.00	12.00	130.00	Open	-52.96	1064.10	1064.11	0.01	0.00
1075	P-470	587.00	12.00	130.00	Open	338.64	1062.62	1062.42	0.20	0.00
1077	P-471	615.00	12.00	130.00	Open	-62.08	1060.91	1060.92	0.01	0.00
1078	P-472	599.00	12.00	130.00	Open	122.80	1218.68	1218.65	0.03	0.00
1081	P-473	602.00	12.00	130.00	Open	-50.70	1064.09	1064.09	0.01	0.00
1083	P-474	605.00	12.00	130.00	Open	221.93	1061.21	1061.12	0.09	0.00
1084	P-475	597.00	12.00	130.00	Open	-237.22	1058.91	1059.01	0.11	0.00
1086	P-476	597.00	12.00	130.00	Open	12.82	1322.92	1322.91	0.00	0.00
1088	P-477	623.00	12.00	130.00	Open	-49.59	1064.07	1064.08	0.01	0.00
1090	P-478	602.00	12.00	130.00	Open	-237.58	1059.01	1059.12	0.11	0.00
1091	P-479	604.00	12.00	130.00	Open	-197.54	1063.58	1063.66	0.08	0.00
1092	P-480	670.00	12.00	130.00	Open	7.00	1060.81	1060.81	0.00	0.00
1094	P-481	603.00	12.00	130.00	Open	86.51	1218.32	1218.31	0.02	0.00
1097	P-482	613.00	12.00	130.00	Open	4.77	1322.91	1322.91	0.00	0.00
1099	P-483	614.00	12.00	130.00	Open	-164.59	1060.34	1060.39	0.06	0.00
1101	P-484	639.00	12.00	130.00	Open	-18.47	1218.60	1218.60	0.00	0.00
1103	P-485	637.00	12.00	130.00	Open	-85.96	1057.67	1057.69	0.02	0.00
1104	P-486	635.00	12.00	130.00	Open	66.89	1062.35	1062.34	0.01	0.00
1106	P-487	641.00	12.00	130.00	Open	-0.38	1062.90	1062.90	0.00	0.00
1107	P-488	638.00	12.00	130.00	Open	38.13	1322.95	1322.94	0.00	0.00
1109	P-489	659.00	12.00	130.00	Open	-222.85	1058.39	1058.49	0.10	0.00
1110	P-490	690.00	12.00	130.00	Open	17.72	1061.62	1061.62	0.00	0.00
1112	P-491	681.00	12.00	130.00	Open	13.77	1322.92	1322.92	0.00	0.00
1113	P-492	697.00	12.00	130.00	Open	141.55	1060.93	1060.88	0.05	0.00
1114	P-493	682.00	12.00	130.00	Open	-261.02	1059.52	1059.66	0.14	0.00
1115	P-494	675.00	12.00	130.00	Open	-163.65	1060.81	1060.87	0.06	0.00
1117	P-495	675.00	12.00	130.00	Open	281.91	1062.10	1061.94	0.16	0.00
1118	P-496	703.00	12.00	130.00	Open	37.07	981.49	981.49	0.00	0.00
1120	P-497	682.00	12.00	130.00	Open	-83.24	1057.72	1057.74	0.02	0.00
1122	P-498	687.00	12.00	130.00	Open	209.51	1058.06	1057.96	0.10	0.00
1123	P-499	693.00	12.00	130.00	Open	-189.71	1063.49	1063.58	0.08	0.00
1124	P-500	723.00	12.00	130.00	Open	-50.14	1064.08	1064.09	0.01	0.00
1125	P-501	690.00	12.00	130.00	Open	-166.35	1060.39	1060.45	0.06	0.00
1126	P-502	698.00	12.00	130.00	Open	-22.35	1057.84	1057.84	0.00	0.00
1127	P-503	727.00	12.00	130.00	Open	-74.51	1060.92	1060.93	0.02	0.00
1128	P-504	707.00	12.00	130.00	Open	237.05	1058.68	1058.56	0.12	0.00
1130	P-505	716.00	12.00	130.00	Open	280.67	1217.47	1217.30	0.17	0.00
1133	P-506	732.00	12.00	130.00	Open	-72.90	1058.68	1058.70	0.01	0.00
1134	P-507	727.00	12.00	130.00	Open	147.71	1059.82	1059.76	0.05	0.00
1135	P-508	722.00	12.00	130.00	Open	257.71	1215.66	1215.51	0.15	0.00
1137	P-509	723.00	12.00	130.00	Open	26.94	1322.92	1322.92	0.00	0.00
1138	P-510	723.00	12.00	130.00	Open	-611.14	1064.01	1064.75	0.74	0.00
1140	P-511	729.00	12.00	130.00	Open	-4.23	1058.66	1058.66	0.00	0.00
1142	P-512	738.00	12.00	130.00	Open	20.11	1057.81	1057.81	0.00	0.00
1145	P-513	737.00	12.00	130.00	Open	-98.38	1059.70	1059.73	0.03	0.00
1147	P-514	824.00	12.00	130.00	Open	72.49	1218.05	1218.03	0.02	0.00
1149	P-515	736.00	12.00	130.00	Open	104.80	1059.09	1059.06	0.03	0.00
1150	P-516	738.00	12.00	130.00	Open	223.69	1061.33	1061.21	0.12	0.00
1151	P-517	768.00	12.00	130.00	Open	202.64	1057.96	1057.85	0.10	0.00
1153	P-518	778.00	12.00	130.00	Open	-202.28	1057.75	1057.85	0.10	0.00
1154	P-519	780.00	12.00	130.00	Open	6.68	1322.91	1322.91	0.00	0.00
1155	P-520	766.00	12.00	130.00	Open	-36.54	1057.84	1057.84	0.00	0.00
1157	P-521	770.00	12.00	130.00	Open	5.14	1322.91	1322.91	0.00	0.00
1158	P-522	832.00	12.00	130.00	Open	5.16	1058.67	1058.67	0.00	0.00
1160	P-523	911.00	12.00	130.00	Open	87.22	1058.63	1058.61	0.03	0.00
1161	P-524	771.00	12.00	130.00	Open	8.23	1322.91	1322.91	0.00	0.00
1162	P-525	787.00	12.00	130.00	Open	-5.18	1057.84	1057.84	0.00	0.00
1164	P-526	768.00	12.00	130.00	Open	6.03	1057.80	1057.80	0.00	0.00
1166	P-527	771.00	12.00	130.00	Open	36.77	1057.83	1057.82	0.00	0.00
1168	P-528	777.00	12.00	130.00	Open	44.98	1059.76	1059.76	0.01	0.00
1170	P-529	786.00	12.00	130.00	Open	52.84	1217.86	1217.85	0.01	0.00
1172	P-530	797.00	12.00	130.00	Open	-43.74	1061.64	1061.64	0.01	0.00
1174	P-531	782.00	12.00	130.00	Open	-610.99	1063.22	1064.01	0.80	0.00
1175	P-532	786.00	12.00	130.00	Open	35.11	981.49	981.48	0.00	0.00
1176	P-533	802.00	12.00	130.00	Open	12.61	1058.76	1058.76	0.00	0.00
1178	P-534	805.00	12.00	130.00	Open	41.60	1322.98	1322.97	0.01	0.00
1179	P-535	807.00	12.00	130.00	Open	63.80	1218.02	1218.01	0.01	0.00
1181	P-536	940.00	12.00	130.00	Open	-19.27	1218.60	1218.61	0.00	0.00
1183	P-537	866.00	12.00	130.00	Open	10.82	1064.62	1064.61	0.00	0.00
1184	P-538	807.00	12.00	130.00	Open	-0.08	1075.00	1075.00	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1187	P-539	825.00	12.00	130.00	Open	8.10	1057.80	1057.80	0.00	0.00
1189	P-540	814.00	12.00	130.00	Open	37.45	1322.93	1322.93	0.00	0.00
1191	P-541	859.00	12.00	130.00	Open	-5.14	1064.63	1064.63	0.00	0.00
1193	P-542	831.00	12.00	130.00	Open	120.55	1218.42	1218.38	0.04	0.00
1195	P-543	822.00	12.00	130.00	Open	37.68	1322.94	1322.93	0.00	0.00
1197	P-544	827.00	12.00	130.00	Open	39.10	1322.96	1322.95	0.01	0.00
1200	P-545	830.00	12.00	130.00	Open	53.85	1217.87	1217.86	0.01	0.00
1202	P-546	831.00	12.00	130.00	Open	10.47	1057.80	1057.80	0.00	0.00
1205	P-547	838.00	12.00	130.00	Open	58.94	1059.73	1059.72	0.01	0.00
1207	P-548	839.00	12.00	130.00	Open	-40.38	1060.03	1060.04	0.01	0.00
1209	P-549	842.00	12.00	130.00	Open	236.49	1058.56	1058.41	0.15	0.00
1210	P-550	890.00	12.00	130.00	Open	27.56	1057.83	1057.83	0.00	0.00
1213	P-551	1047.00	12.00	130.00	Open	83.29	1218.20	1218.17	0.03	0.00
1215	P-552	850.00	12.00	130.00	Open	261.48	1216.88	1216.70	0.18	0.00
1217	P-553	852.00	12.00	130.00	Open	16.51	1064.62	1064.62	0.00	0.00
1218	P-554	857.00	12.00	130.00	Open	38.88	1322.95	1322.95	0.01	0.00
1219	P-555	859.00	12.00	130.00	Open	54.25	1217.88	1217.87	0.01	0.00
1220	P-556	930.00	12.00	130.00	Open	-4.91	1057.92	1057.92	0.00	0.00
1223	P-557	873.00	12.00	130.00	Open	41.86	1059.74	1059.73	0.01	0.00
1226	P-558	887.00	12.00	130.00	Open	42.34	1322.98	1322.98	0.01	0.00
1227	P-559	883.00	12.00	130.00	Open	40.80	1059.71	1059.71	0.01	0.00
1230	P-560	910.00	12.00	130.00	Open	260.60	1216.49	1216.30	0.19	0.00
1233	P-561	890.00	12.00	130.00	Open	-0.23	1075.00	1075.00	0.00	0.00
1235	P-562	890.00	12.00	130.00	Open	74.09	1218.11	1218.10	0.02	0.00
1236	P-563	891.00	12.00	130.00	Open	-96.27	1059.66	1059.69	0.03	0.00
1237	P-564	897.00	12.00	130.00	Open	37.91	1322.94	1322.94	0.01	0.00
1238	P-565	901.00	12.00	130.00	Open	121.43	1218.52	1218.47	0.05	0.00
1241	P-566	925.00	12.00	130.00	Open	10.12	1057.80	1057.80	0.00	0.00
1243	P-567	904.00	12.00	130.00	Open	40.92	1322.96	1322.96	0.01	0.00
1244	P-568	939.00	12.00	130.00	Open	61.26	1217.95	1217.93	0.01	0.00
1246	P-569	943.00	12.00	130.00	Open	-100.14	1059.73	1059.76	0.03	0.00
1247	P-570	1025.00	12.00	130.00	Open	66.53	1062.34	1062.32	0.02	0.00
1248	P-571	945.00	12.00	130.00	Open	-57.20	1060.89	1060.90	0.01	0.00
1249	P-572	916.00	12.00	130.00	Open	281.56	1217.94	1217.72	0.22	0.00
1251	P-573	927.00	12.00	130.00	Open	278.15	1217.30	1217.08	0.22	0.00
1252	P-574	1000.00	12.00	130.00	Open	-18.87	1218.60	1218.60	0.00	0.00
1253	P-575	943.00	12.00	130.00	Open	-25.14	1061.63	1061.63	0.00	0.00
1255	P-576	934.00	12.00	130.00	Open	20.66	1057.81	1057.81	0.00	0.00
1256	P-577	962.00	12.00	130.00	Open	60.46	1217.93	1217.92	0.01	0.00
1258	P-578	949.00	12.00	130.00	Open	27.06	1057.82	1057.82	0.00	0.00
1260	P-579	944.00	12.00	130.00	Open	14.65	1322.92	1322.92	0.00	0.00
1262	P-580	948.00	12.00	130.00	Open	-267.11	1063.98	1064.19	0.21	0.00
1263	P-581	962.00	12.00	130.00	Open	11.11	1058.76	1058.76	0.00	0.00
1265	P-582	1071.00	12.00	130.00	Open	72.89	1218.07	1218.05	0.02	0.00
1267	P-583	970.00	12.00	130.00	Open	258.54	1215.86	1215.66	0.20	0.00
1269	P-584	984.00	12.00	130.00	Open	610.38	1062.90	1061.90	1.00	0.00
1270	P-585	988.00	12.00	130.00	Open	-21.26	1218.61	1218.61	0.00	0.00
1273	P-586	979.00	12.00	130.00	Open	259.54	1216.06	1215.86	0.20	0.00
1275	P-587	1096.00	12.00	130.00	Open	-13.49	1064.63	1064.63	0.00	0.00
1278	P-588	972.00	12.00	130.00	Open	-5.94	1057.84	1057.84	0.00	0.00
1279	P-589	1010.00	12.00	130.00	Open	163.72	1060.24	1060.15	0.09	0.00
1282	P-590	998.00	12.00	130.00	Open	-22.76	1059.75	1059.76	0.00	0.00
1284	P-591	994.00	12.00	130.00	Open	86.91	1218.35	1218.32	0.03	0.00
1285	P-592	1033.00	12.00	130.00	Open	303.30	1064.16	1063.87	0.29	0.00
1288	P-593	983.00	12.00	130.00	Open	59.66	1217.91	1217.89	0.01	0.00
1291	P-594	988.00	12.00	130.00	Open	28.27	1057.84	1057.83	0.00	0.00
1294	P-595	1094.00	12.00	130.00	Open	164.40	1060.97	1060.87	0.10	0.00
1295	P-596	1000.00	12.00	130.00	Open	-182.48	1060.77	1060.88	0.11	0.00
1298	P-597	1000.00	12.00	130.00	Open	261.00	1216.70	1216.49	0.21	0.00
1299	P-598	1002.00	12.00	130.00	Open	57.78	1059.72	1059.71	0.01	0.00
1300	P-599	996.00	12.00	130.00	Open	12.73	1064.62	1064.62	0.00	0.00
1301	P-600	1101.00	12.00	130.00	Open	15.09	981.48	981.48	0.00	0.00
1302	P-601	1007.00	12.00	130.00	Open	-128.60	1057.82	1057.88	0.06	0.00
1304	P-602	1178.00	12.00	130.00	Open	-0.95	1322.92	1322.92	0.00	0.00
1306	P-603	1115.00	12.00	130.00	Open	-20.86	1218.61	1218.61	0.00	0.00
1308	P-604	1001.00	12.00	130.00	Open	29.20	1322.93	1322.92	0.00	0.00
1309	P-605	1018.00	12.00	130.00	Open	-13.13	1064.63	1064.63	0.00	0.00
1310	P-606	1013.00	12.00	130.00	Open	164.28	1060.33	1060.24	0.09	0.00
1311	P-607	1037.00	12.00	130.00	Open	48.78	1217.83	1217.82	0.01	0.00
1314	P-608	1017.00	12.00	130.00	Open	157.63	1057.67	1057.59	0.08	0.00
1315	P-609	1034.00	12.00	130.00	Open	-3.75	1057.91	1057.92	0.00	0.00
1316	P-610	1028.00	12.00	130.00	Open	0.71	1060.02	1060.02	0.00	0.00
1318	P-611	1026.00	12.00	130.00	Open	60.06	1217.92	1217.91	0.01	0.00
1319	P-612	1033.00	12.00	130.00	Open	303.85	1064.45	1064.16	0.29	0.00
1320	P-613	1027.00	12.00	130.00	Open	-6.07	1057.92	1057.92	0.00	0.00
1321	P-614	1029.00	12.00	130.00	Open	6.99	1057.80	1057.80	0.00	0.00
1322	P-615	1050.00	12.00	130.00	Open	121.03	1218.47	1218.42	0.05	0.00
1323	P-616	1030.00	12.00	130.00	Open	281.07	1217.72	1217.47	0.25	0.00
1324	P-617	1044.00	12.00	130.00	Open	0.48	1060.87	1060.87	0.00	0.00
1326	P-618	1208.00	12.00	130.00	Open	-13.84	1064.63	1064.63	0.00	0.00
1327	P-619	1056.00	12.00	130.00	Open	-0.48	1322.91	1322.91	0.00	0.00
1328	P-620	1102.00	12.00	130.00	Open	82.15	1218.14	1218.12	0.03	0.00
1330	P-621	1052.00	12.00	130.00	Open	9.97	1057.80	1057.80	0.00	0.00
1332	P-622	1062.00	12.00	130.00	Open	162.77	1060.15	1060.06	0.09	0.00
1334	P-623	1076.00	12.00	130.00	Open	-20.47	1218.61	1218.61	0.00	0.00
1335	P-624	1091.00	12.00	130.00	Open	59.26	1217.89	1217.88	0.01	0.00
1336	P-625	1088.00	12.00	130.00	Open	15.03	1322.92	1322.92	0.00	0.00
1337	P-626	1102.00	12.00	130.00	Open	28.12	1057.83	1057.83	0.00	0.00
1338	P-627	1314.00	12.00	130.00	Open	63.06	1218.01	1217.99	0.02	0.00
1339	P-628	1117.00	12.00	130.00	Open	123.28	1218.74	1218.68	0.06	0.00
1341	P-629	1095.00	12.00	130.00	Open	11.85	1322.91	1322.91	0.00	0.00
1342	P-630	1166.00	12.00	130.00	Open	-24.12	1059.76	1059.76	0.00	0.00
1343	P-631	1152.00	12.00	130.00	Open	-41.98	1061.63	1061.64	0.01	0.00
1344	P-632	1133.00	12.00	130.00	Open	107.68	1057.54	1057.49	0.05	0.00
1345	P-633	1141.00	12.00	130.00	Open	259.94	1216.30	1216.06	0.24	0.00
1346	P-634	1145.00	12.00	130.00	Open	-123.88	1057.76	1057.82	0.06	0.00
1348	P-635	1189.00	12.00	130.00	Open	0.56	1060.02	1060.02	0.00	0.00
1350	P-636	1176.00	12.00	130.00	Open	84.57	1218.24	1218.21	0.03	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1351	P-637	1390.00	12.00	130.00	Open	161.81	1060.06	1059.94	0.12	0.00
1352	P-638	1201.00	12.00	130.00	Open	82.55	1218.17	1218.14	0.03	0.00
1353	P-639	1480.00	12.00	130.00	Open	156.85	1059.94	1059.82	0.12	0.00
1354	P-640	1228.00	12.00	130.00	Open	40.95	1059.72	1059.71	0.01	0.00
1356	P-641	1190.00	12.00	130.00	Open	0.00	1060.81	1060.81	0.00	0.00
1357	P-642	1232.00	12.00	130.00	Open	122.40	1218.65	1218.58	0.06	0.00
1359	P-643	1290.00	12.00	130.00	Open	-21.66	1218.61	1218.62	0.00	0.00
1360	P-644	1242.00	12.00	130.00	Open	122.00	1218.58	1218.52	0.06	0.00
1361	P-645	1252.00	12.00	130.00	Open	-177.32	1060.50	1060.63	0.13	0.00
1362	P-646	1268.00	12.00	130.00	Open	-39.22	1060.02	1060.03	0.01	0.00
1363	P-647	1300.00	12.00	130.00	Open	-118.35	1057.70	1057.76	0.06	0.00
1364	P-648	1515.00	12.00	130.00	Open	41.10	1059.73	1059.72	0.01	0.00
1365	P-649	1306.00	12.00	130.00	Open	49.26	1217.85	1217.83	0.01	0.00
1366	P-650	1313.00	12.00	130.00	Open	-181.32	1060.63	1060.77	0.14	0.00
1367	P-651	1475.00	12.00	130.00	Open	82.28	1057.72	1057.69	0.04	0.00
1368	P-652	1442.00	12.00	130.00	Open	264.07	1062.34	1062.03	0.31	0.00
1369	P-653	1446.00	12.00	130.00	Open	73.29	1218.10	1218.07	0.03	0.00
1370	P-654	2121.00	12.00	130.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1372	P-655	1683.00	12.00	130.00	Open	284.68	1060.78	1060.36	0.42	0.00
1373	P-656	1602.00	12.00	130.00	Open	338.99	1063.16	1062.62	0.55	0.00
1375	P-657	1814.00	12.00	130.00	Open	55.01	1060.83	1060.81	0.02	0.00
1376	P-658	1762.00	12.00	130.00	Open	9.26	1057.80	1057.80	0.00	0.00
1378	P-659	1671.00	12.00	130.00	Open	9.81	1057.80	1057.80	0.00	0.00
1379	P-660	2004.00	12.00	130.00	Open	86.11	1218.31	1218.25	0.05	0.00
1380	P-661	2029.00	12.00	130.00	Open	28.43	1057.84	1057.84	0.01	0.00
1381	P-662	1862.00	12.00	130.00	Open	217.89	1060.04	1059.76	0.28	0.00
1382	P-663	1952.00	12.00	130.00	Open	285.23	1062.63	1062.15	0.48	0.00
1383	P-664	1900.00	12.00	130.00	Open	27.41	1057.83	1057.82	0.01	0.00
1384	P-665	2216.00	12.00	130.00	Open	25.47	1061.63	1061.62	0.01	0.00
1385	P-666	2065.00	12.00	130.00	Open	339.95	1063.87	1063.16	0.71	0.00
1386	P-667	2830.00	12.00	130.00	Open	61.65	1217.99	1217.95	0.04	0.00
1387	P-668	2731.00	12.00	130.00	Open	19.75	1057.81	1057.81	0.00	0.00
1389	P-669	2751.00	12.00	130.00	Open	-156.43	1057.92	1058.14	0.22	0.00
1391	P-670	3072.00	12.00	130.00	Open	-158.99	1058.14	1058.40	0.26	0.00
1392	P-671	2919.00	12.00	130.00	Open	43.02	1059.76	1059.74	0.02	0.00
1393	P-672	3784.00	12.00	130.00	Open	171.12	1064.88	1064.51	0.36	0.00
1394	P-673	4336.00	12.00	130.00	Open	11.23	1057.81	1057.80	0.00	0.00
1395	P-674	3.00	16.00	130.00	Open	-45.04	1064.63	1064.63	0.00	0.00
1398	P-675	6.00	16.00	130.00	Open	-68.26	1064.64	1064.64	0.00	0.00
1400	P-676	11.00	16.00	130.00	Open	0.28	1059.04	1059.04	0.00	0.00
1402	P-677	16.00	16.00	130.00	Open	-8.98	1058.64	1058.64	0.00	0.00
1405	P-678	17.00	16.00	130.00	Open	-182.83	1060.88	1060.88	0.00	0.00
1407	P-679	22.00	16.00	130.00	Open	176.51	1058.76	1058.76	0.00	0.00
1411	P-681	22.00	16.00	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
1413	P-682	24.00	16.00	130.00	Open	79.52	1058.64	1058.64	0.00	0.00
1416	P-683	34.00	16.00	130.00	Open	137.47	1058.68	1058.68	0.00	0.00
1418	P-684	46.00	16.00	130.00	Open	1.38	1058.64	1058.64	0.00	0.00
1421	P-685	60.00	16.00	130.00	Open	158.21	1058.71	1058.71	0.00	0.00
1424	P-686	72.00	16.00	130.00	Open	196.50	1058.77	1058.76	0.00	0.00
1426	P-687	78.00	16.00	130.00	Open	0.08	1058.64	1058.64	0.00	0.00
1429	P-688	81.00	16.00	130.00	Open	-0.28	1060.88	1060.88	0.00	0.00
1431	P-689	90.00	16.00	130.00	Open	138.18	1058.69	1058.69	0.00	0.00
1434	P-690	120.00	16.00	130.00	Open	2.69	1058.64	1058.64	0.00	0.00
1437	P-691	124.00	16.00	130.00	Open	0.23	1058.64	1058.64	0.00	0.00
1439	P-692	134.00	16.00	130.00	Open	168.58	1058.72	1058.72	0.00	0.00
1442	P-693	147.00	16.00	130.00	Open	-3.25	1058.64	1058.64	0.00	0.00
1444	P-694	153.00	16.00	130.00	Open	251.34	1058.85	1058.85	0.01	0.00
1447	P-695	164.00	16.00	130.00	Open	-8.42	1058.64	1058.64	0.00	0.00
1448	P-696	170.00	16.00	130.00	Open	263.50	1060.38	1060.37	0.01	0.00
1451	P-697	200.00	16.00	130.00	Open	315.74	1059.04	1059.03	0.01	0.00
1453	P-698	228.00	16.00	130.00	Open	2.14	1058.64	1058.64	0.00	0.00
1454	P-699	258.00	16.00	130.00	Open	-184.51	1061.04	1061.05	0.01	0.00
1456	P-700	259.00	16.00	130.00	Open	91.30	1058.65	1058.65	0.00	0.00
1459	P-701	277.00	16.00	130.00	Open	146.42	1058.70	1058.69	0.01	0.00
1461	P-702	278.00	16.00	130.00	Open	1.03	1058.64	1058.64	0.00	0.00
1463	P-703	317.00	16.00	130.00	Open	91.85	1058.65	1058.65	0.00	0.00
1465	P-704	325.00	16.00	130.00	Open	-38.40	1058.66	1058.66	0.00	0.00
1467	P-705	329.00	16.00	130.00	Open	303.45	1058.88	1058.85	0.02	0.00
1469	P-706	341.00	16.00	130.00	Open	169.29	1058.73	1058.72	0.01	0.00
1471	P-707	355.00	16.00	130.00	Open	72.77	1058.64	1058.64	0.00	0.00
1473	P-708	366.00	16.00	130.00	Open	-0.44	1058.64	1058.64	0.00	0.00
1475	P-709	378.00	16.00	130.00	Open	94.23	1058.66	1058.65	0.00	0.00
1477	P-710	394.00	16.00	130.00	Open	0.87	1058.64	1058.64	0.00	0.00
1479	P-711	417.00	16.00	130.00	Open	171.96	1058.76	1058.75	0.01	0.00
1481	P-712	417.00	16.00	130.00	Open	314.83	1058.99	1058.95	0.03	0.00
1484	P-713	442.00	16.00	130.00	Open	94.39	1058.66	1058.66	0.00	0.00
1485	P-714	449.00	16.00	130.00	Open	137.63	1058.69	1058.68	0.01	0.00
1486	P-715	452.00	16.00	130.00	Open	0.32	1058.64	1058.64	0.00	0.00
1487	P-716	453.00	16.00	130.00	Open	250.83	1058.82	1058.80	0.02	0.00
1490	P-717	462.00	16.00	130.00	Open	90.74	1058.65	1058.64	0.00	0.00
1491	P-718	475.00	16.00	130.00	Open	171.00	1058.75	1058.74	0.01	0.00
1493	P-719	475.00	16.00	130.00	Open	169.64	1058.74	1058.73	0.01	0.00
1494	P-720	478.00	16.00	130.00	Open	197.46	1058.78	1058.77	0.01	0.00
1496	P-721	502.00	16.00	130.00	Open	168.42	1058.72	1058.71	0.01	0.00
1497	P-722	516.00	16.00	130.00	Open	304.21	1058.91	1058.88	0.04	0.00
1499	P-723	536.00	16.00	130.00	Open	251.19	1058.85	1058.82	0.03	0.00
1500	P-724	549.00	16.00	130.00	Open	200.44	1058.80	1058.78	0.02	0.00
1501	P-725	553.00	16.00	130.00	Open	315.38	1059.03	1058.99	0.04	0.00
1502	P-726	559.00	16.00	130.00	Open	78.97	1058.64	1058.64	0.00	0.00
1503	P-727	573.00	16.00	130.00	Open	157.86	1058.71	1058.70	0.01	0.00
1504	P-728	599.00	16.00	130.00	Open	-184.20	1060.99	1061.01	0.02	0.00
1507	P-729	616.00	16.00	130.00	Open	304.56	1058.95	1058.91	0.04	0.00
1508	P-730	624.00	16.00	130.00	Open	423.38	1060.94	1060.86	0.08	0.00
1511	P-731	645.00	16.00	130.00	Open	422.27	1060.74	1060.66	0.08	0.00
1514	P-732	649.00	16.00	130.00	Open	-11.14	1058.64	1058.64	0.00	0.00
1515	P-733	785.00	16.00	130.00	Open	-4.31	1058.66	1058.66	0.00	0.00
1516	P-734	804.00	16.00	130.00	Open	423.94	1061.05	1060.94	0.10	0.00
1517	P-735	844.00	16.00	130.00	Open	262.59	1060.27	1060.23	0.04	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1519	P-736	916.00	16.00	130.00	Open	421.77	1060.49	1060.38	0.12	0.00
1521	P-737	965.00	16.00	130.00	Open	-183.90	1060.94	1060.96	0.03	0.00
1524	P-738	992.00	16.00	130.00	Open	422.83	1060.86	1060.74	0.13	0.00
1525	P-739	1029.00	16.00	130.00	Open	-183.34	1060.91	1060.94	0.03	0.00
1527	P-740	1047.00	16.00	130.00	Open	-184.05	1060.96	1060.99	0.03	0.00
1528	P-741	1064.00	16.00	130.00	Open	-184.36	1061.01	1061.04	0.03	0.00
1529	P-742	1204.00	16.00	130.00	Open	-182.99	1060.88	1060.91	0.03	0.00
1530	P-743	1275.00	16.00	130.00	Open	421.92	1060.66	1060.49	0.16	0.00
1531	P-744	1748.00	16.00	130.00	Open	110.28	1064.66	1064.64	0.02	0.00
1533	P-745	1856.00	16.00	130.00	Open	263.14	1060.37	1060.27	0.10	0.00
1534	P-746	1952.00	16.00	130.00	Open	-45.19	1064.63	1064.63	0.00	0.00
1536	P-747	2626.00	16.00	130.00	Open	-67.90	1064.63	1064.64	0.01	0.00
1537	P-748	7.00	18.00	130.00	Open	400.26	1218.74	1218.74	0.00	0.00
1539	P-749	104.00	18.00	130.00	Open	525.51	1219.01	1219.00	0.01	0.00
1541	P-750	140.00	18.00	130.00	Open	377.12	1218.62	1218.61	0.01	0.00
1543	P-751	318.00	18.00	130.00	Open	375.13	1218.38	1218.36	0.02	0.00
1546	P-752	358.00	18.00	130.00	Open	524.72	1219.00	1218.96	0.04	0.00
1548	P-753	397.00	18.00	130.00	Open	333.93	1218.15	1218.13	0.02	0.00
1551	P-754	682.00	18.00	130.00	Open	343.22	1218.36	1218.32	0.03	0.00
1553	P-755	819.00	18.00	130.00	Open	329.15	1218.07	1218.04	0.04	0.00
1555	P-756	872.00	18.00	130.00	Open	399.78	1218.74	1218.68	0.06	0.00
1557	P-757	1014.00	18.00	130.00	Open	376.72	1218.61	1218.55	0.06	0.00
1559	P-758	946.00	18.00	130.00	Open	376.32	1218.55	1218.50	0.05	0.00
1561	P-759	1039.00	18.00	130.00	Open	523.75	1218.85	1218.74	0.11	0.00
1563	P-760	978.00	18.00	130.00	Open	399.38	1218.68	1218.62	0.06	0.00
1564	P-761	1000.00	18.00	130.00	Open	375.53	1218.43	1218.38	0.06	0.00
1566	P-762	1064.00	18.00	130.00	Open	524.32	1218.96	1218.85	0.11	0.00
1567	P-763	1100.00	18.00	130.00	Open	375.93	1218.50	1218.43	0.06	0.00
1568	P-764	1234.00	18.00	130.00	Open	333.53	1218.13	1218.07	0.06	0.00
1569	P-765	1813.00	18.00	130.00	Open	342.42	1218.23	1218.15	0.09	0.00
1571	P-766	1869.00	18.00	130.00	Open	342.82	1218.32	1218.23	0.09	0.00
1572	P-767	2.00	2.00	130.00	Open	0.48	1059.32	1059.32	0.00	0.00
1575	P-768	2.00	2.00	130.00	Open	-0.40	1216.98	1216.98	0.00	0.00
1578	P-769	6.00	2.00	130.00	Open	-0.88	1062.01	1062.01	0.00	0.00
1581	P-770	6.00	2.00	130.00	Open	0.28	1061.84	1061.84	0.00	0.00
1584	P-771	9.00	2.00	130.00	Open	0.28	1061.84	1061.84	0.00	0.00
1586	P-772	10.00	2.00	130.00	Open	3.80	961.57	961.56	0.01	0.00
1589	P-773	12.00	2.00	130.00	Open	-0.28	1064.62	1064.62	0.00	0.00
1592	P-774	13.00	2.00	130.00	Open	0.88	1061.05	1061.05	0.00	0.00
1598	P-776	15.00	2.00	130.00	Open	0.68	1061.02	1061.02	0.00	0.00
1601	P-777	15.00	2.00	130.00	Open	0.63	1061.84	1061.84	0.00	0.00
1603	P-778	15.00	2.00	130.00	Open	0.68	1061.04	1061.04	0.00	0.00
1606	P-779	16.00	2.00	130.00	Open	0.68	1061.02	1061.02	0.00	0.00
1609	P-780	16.00	2.00	130.00	Open	1.44	1064.62	1064.62	0.00	0.00
1612	P-781	16.00	2.00	130.00	Open	0.68	1061.05	1061.05	0.00	0.00
1615	P-782	17.00	2.00	130.00	Open	0.68	1057.07	1057.07	0.00	0.00
1618	P-783	18.00	2.00	130.00	Open	0.08	1057.09	1057.09	0.00	0.00
1621	P-784	26.00	2.00	130.00	Open	0.46	1217.75	1217.75	0.00	0.00
1624	P-785	19.00	2.00	130.00	Open	0.68	1061.01	1061.01	0.00	0.00
1627	P-786	19.00	2.00	130.00	Open	0.48	1059.84	1059.84	0.00	0.00
1629	P-787	31.00	2.00	130.00	Open	4.37	1217.75	1217.73	0.02	0.00
1632	P-788	25.00	2.00	130.00	Open	1.68	1058.64	1058.64	0.00	0.00
1634	P-789	26.00	2.00	130.00	Open	0.46	991.17	991.17	0.00	0.00
1637	P-790	28.00	2.00	130.00	Open	0.40	973.48	973.48	0.00	0.00
1640	P-791	28.00	2.00	130.00	Open	0.20	961.56	961.56	0.00	0.00
1642	P-792	30.00	2.00	130.00	Open	1.58	963.61	963.60	0.00	0.00
1645	P-793	33.00	2.00	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
1647	P-794	34.00	2.00	130.00	Open	4.37	961.59	961.57	0.02	0.00
1648	P-795	36.00	2.00	130.00	Open	0.48	1201.27	1201.27	0.00	0.00
1651	P-796	40.00	2.00	130.00	Open	-1.19	1061.84	1061.84	0.00	0.00
1653	P-797	43.00	2.00	130.00	Open	-0.48	1064.80	1064.80	0.00	0.00
1656	P-798	43.00	2.00	130.00	Open	-0.88	1061.02	1061.02	0.00	0.00
1659	P-799	48.00	2.00	130.00	Open	1.23	1059.32	1059.32	0.00	0.00
1660	P-800	51.00	2.00	130.00	Open	0.20	993.43	993.43	0.00	0.00
1663	P-801	54.00	2.00	130.00	Open	0.28	1058.81	1058.81	0.00	0.00
1666	P-802	53.00	2.00	130.00	Open	3.51	1022.93	1022.91	0.02	0.00
1669	P-803	232.00	2.00	130.00	Open	0.55	1322.91	1322.91	0.00	0.00
1672	P-804	56.00	2.00	130.00	Open	0.20	993.42	993.42	0.00	0.00
1675	P-805	74.00	2.00	130.00	Open	0.20	973.48	973.48	0.00	0.00
1678	P-806	58.00	2.00	130.00	Open	-1.64	1060.83	1060.84	0.01	0.00
1681	P-807	58.00	2.00	130.00	Open	-0.88	1061.02	1061.02	0.00	0.00
1684	P-808	368.00	2.00	130.00	Open	-1.28	1064.05	1064.07	0.03	0.00
1687	P-809	64.00	2.00	130.00	Open	0.88	1061.02	1061.02	0.00	0.00
1690	P-810	64.00	2.00	130.00	Open	1.88	1061.04	1061.03	0.01	0.00
1693	P-811	67.00	2.00	130.00	Open	-0.08	1059.26	1059.26	0.00	0.00
1696	P-812	67.00	2.00	130.00	Open	0.48	1057.38	1057.38	0.00	0.00
1699	P-813	68.00	2.00	130.00	Open	0.68	1061.05	1061.04	0.00	0.00
1702	P-814	70.00	2.00	130.00	Open	-1.44	1060.84	1060.84	0.01	0.00
1705	P-815	72.00	2.00	130.00	Open	-0.88	1061.01	1061.01	0.00	0.00
1708	P-816	74.00	2.00	130.00	Open	0.20	973.48	973.48	0.00	0.00
1710	P-817	75.00	2.00	130.00	Open	0.46	973.48	973.48	0.00	0.00
1713	P-818	81.00	2.00	130.00	Open	0.68	1058.76	1058.76	0.00	0.00
1716	P-819	287.00	2.00	130.00	Open	-1.28	1057.81	1057.83	0.02	0.00
1719	P-820	120.00	2.00	130.00	Open	-0.48	1061.02	1061.02	0.00	0.00
1721	P-821	98.00	2.00	130.00	Open	0.48	1061.04	1061.04	0.00	0.00
1724	P-822	103.00	2.00	130.00	Open	0.48	1064.36	1064.36	0.00	0.00
1727	P-823	88.00	2.00	130.00	Open	0.89	967.13	967.13	0.00	0.00
1730	P-824	100.00	2.00	130.00	Open	0.48	1058.99	1058.99	0.00	0.00
1733	P-825	96.00	2.00	130.00	Open	-0.46	991.15	991.15	0.00	0.00
1736	P-826	103.00	2.00	130.00	Open	0.68	1061.60	1061.60	0.00	0.00
1739	P-827	112.00	2.00	130.00	Open	0.68	1058.99	1058.99	0.00	0.00
1742	P-828	102.00	2.00	130.00	Open	0.48	1064.60	1064.60	0.00	0.00
1745	P-829	101.00	2.00	130.00	Open	0.48	1059.33	1059.33	0.00	0.00
1748	P-830	143.00	2.00	130.00	Open	-0.68	1058.02	1058.02	0.00	0.00
1751	P-831	133.00	2.00	130.00	Open	0.88	1060.08	1060.08	0.00	0.00
1754	P-832	134.00	2.00	130.00	Open	0.48	1057.81	1057.81	0.00	0.00
1757	P-833	128.00	2.00	130.00	Open	0.68	1059.72	1059.72	0.00	0.00
1760	P-834	149.00	2.00	130.00	Open	0.88	1061.85	1061.84	0.01	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1763	P-835	114.00	2.00	130.00	Open	0.01	1061.61	1061.61	0.00	0.00
1766	P-836	164.00	2.00	130.00	Open	0.48	1061.84	1061.84	0.00	0.00
1768	P-837	195.00	2.00	130.00	Open	0.55	988.98	988.98	0.00	0.00
1771	P-838	124.00	2.00	130.00	Open	-0.87	1061.61	1061.62	0.00	0.00
1773	P-839	165.00	2.00	130.00	Open	0.88	1061.61	1061.60	0.01	0.00
1776	P-840	125.00	2.00	130.00	Open	1.84	1057.40	1057.38	0.02	0.00
1779	P-841	126.00	2.00	130.00	Open	1.68	1056.91	1056.90	0.01	0.00
1781	P-842	126.00	2.00	130.00	Open	0.48	1059.33	1059.33	0.00	0.00
1783	P-843	171.00	2.00	130.00	Open	0.88	1060.08	1060.08	0.01	0.00
1786	P-844	159.00	2.00	130.00	Open	0.88	1060.13	1060.12	0.01	0.00
1789	P-845	155.00	2.00	130.00	Open	0.88	1062.60	1062.60	0.01	0.00
1792	P-846	159.00	2.00	130.00	Open	0.88	1061.60	1061.59	0.01	0.00
1795	P-847	174.00	2.00	130.00	Open	-0.48	1059.52	1059.53	0.00	0.00
1798	P-848	132.00	2.00	130.00	Open	0.28	1058.65	1058.65	0.00	0.00
1800	P-849	149.00	2.00	130.00	Open	0.28	981.47	981.47	0.00	0.00
1803	P-850	134.00	2.00	130.00	Open	0.48	1064.79	1064.79	0.00	0.00
1806	P-851	187.00	2.00	130.00	Open	0.48	1062.01	1062.01	0.00	0.00
1809	P-852	134.00	2.00	130.00	Open	0.89	1061.62	1061.61	0.00	0.00
1811	P-853	192.00	2.00	130.00	Open	0.48	1062.12	1062.11	0.00	0.00
1814	P-854	213.00	2.00	130.00	Open	0.68	1057.81	1057.81	0.00	0.00
1817	P-855	213.00	2.00	130.00	Open	-0.88	1059.52	1059.53	0.01	0.00
1820	P-856	175.00	2.00	130.00	Open	0.68	1057.82	1057.82	0.00	0.00
1823	P-857	139.00	2.00	130.00	Open	0.68	1059.15	1059.15	0.00	0.00
1826	P-858	225.00	2.00	130.00	Open	0.88	1064.62	1064.62	0.01	0.00
1828	P-859	149.00	2.00	130.00	Open	0.88	1057.38	1057.38	0.01	0.00
1830	P-860	212.00	2.00	130.00	Open	0.48	1059.94	1059.94	0.00	0.00
1833	P-861	193.00	2.00	130.00	Open	0.48	1063.37	1063.37	0.00	0.00
1836	P-862	220.00	2.00	130.00	Open	0.48	1064.60	1064.60	0.00	0.00
1839	P-863	290.00	2.00	130.00	Open	1.08	1063.37	1063.36	0.01	0.00
1842	P-864	209.00	2.00	130.00	Open	0.88	1064.62	1064.61	0.01	0.00
1845	P-865	208.00	2.00	130.00	Open	0.68	1060.08	1060.08	0.00	0.00
1848	P-866	172.00	2.00	130.00	Open	-0.48	1061.07	1061.07	0.00	0.00
1851	P-867	207.00	2.00	130.00	Open	2.49	1059.73	1059.68	0.05	0.00
1854	P-868	244.00	2.00	130.00	Open	-0.88	1061.83	1061.84	0.01	0.00
1857	P-869	181.00	2.00	130.00	Open	0.68	1059.27	1059.26	0.00	0.00
1860	P-870	301.00	2.00	130.00	Open	1.28	1063.37	1063.35	0.02	0.00
1863	P-871	199.00	2.00	130.00	Open	0.68	1061.61	1061.61	0.00	0.00
1866	P-872	197.00	2.00	130.00	Open	1.28	1064.62	1064.61	0.01	0.00
1869	P-873	274.00	2.00	130.00	Open	0.48	1063.38	1063.38	0.00	0.00
1872	P-874	219.00	2.00	130.00	Open	0.46	1022.87	1022.86	0.00	0.00
1875	P-875	206.00	2.00	130.00	Open	1.48	1062.60	1062.58	0.02	0.00
1878	P-876	251.00	2.00	130.00	Open	0.48	1059.28	1059.28	0.00	0.00
1880	P-877	230.00	2.00	130.00	Open	-1.28	1060.83	1060.84	0.02	0.00
1883	P-878	215.00	2.00	130.00	Open	-0.88	1064.61	1064.62	0.01	0.00
1886	P-879	264.00	2.00	130.00	Open	0.48	1057.80	1057.80	0.00	0.00
1888	P-880	238.00	2.00	130.00	Open	0.88	1061.62	1061.61	0.01	0.00
1891	P-881	254.00	2.00	130.00	Open	0.63	988.98	988.98	0.00	0.00
1894	P-882	222.00	2.00	130.00	Open	2.09	1056.91	1056.88	0.04	0.00
1897	P-883	221.00	2.00	130.00	Open	-2.09	1056.95	1056.99	0.04	0.00
1900	P-884	244.00	2.00	130.00	Open	-0.88	1060.82	1060.83	0.01	0.00
1902	P-885	275.00	2.00	130.00	Open	0.48	1059.53	1059.53	0.00	0.00
1905	P-886	223.00	2.00	130.00	Open	-0.68	1059.31	1059.32	0.00	0.00
1907	P-887	227.00	2.00	130.00	Open	0.55	973.48	973.48	0.00	0.00
1910	P-888	234.00	2.00	130.00	Open	1.68	1064.90	1064.88	0.03	0.00
1913	P-889	233.00	2.00	130.00	Open	0.68	1059.27	1059.26	0.01	0.00
1916	P-890	270.00	2.00	130.00	Open	0.48	1059.26	1059.26	0.00	0.00
1919	P-891	251.00	2.00	130.00	Open	0.68	1059.26	1059.25	0.01	0.00
1922	P-892	261.00	2.00	130.00	Open	-0.88	1060.83	1060.84	0.01	0.00
1924	P-893	253.00	2.00	130.00	Open	0.88	1063.25	1063.24	0.01	0.00
1927	P-894	269.00	2.00	130.00	Open	0.29	993.35	993.34	0.00	0.00
1930	P-895	258.00	2.00	130.00	Open	-0.37	967.07	967.07	0.00	0.00
1933	P-896	262.00	2.00	130.00	Open	-0.48	1063.46	1063.46	0.00	0.00
1936	P-897	309.00	2.00	130.00	Open	-0.63	993.31	993.32	0.01	0.00
1939	P-898	268.00	2.00	130.00	Open	0.88	1059.10	1059.09	0.01	0.00
1942	P-899	290.00	2.00	130.00	Open	0.88	1064.85	1064.84	0.01	0.00
1945	P-900	281.00	2.00	130.00	Open	0.88	1059.10	1059.09	0.01	0.00
1948	P-901	298.00	2.00	130.00	Open	0.40	1322.91	1322.91	0.00	0.00
1951	P-902	292.00	2.00	130.00	Open	0.88	1064.63	1064.62	0.01	0.00
1954	P-903	289.00	2.00	130.00	Open	0.37	993.34	993.34	0.00	0.00
1957	P-904	310.00	2.00	130.00	Open	0.48	1064.63	1064.63	0.00	0.00
1960	P-905	308.00	2.00	130.00	Open	-1.08	1059.18	1059.20	0.02	0.00
1962	P-906	308.00	2.00	130.00	Open	0.88	1059.26	1059.25	0.01	0.00
1965	P-907	317.00	2.00	130.00	Open	1.08	1064.63	1064.61	0.02	0.00
1968	P-908	321.00	2.00	130.00	Open	0.72	963.60	963.60	0.01	0.00
1971	P-909	315.00	2.00	130.00	Open	-0.68	1063.24	1063.25	0.01	0.00
1974	P-910	316.00	2.00	130.00	Open	0.46	967.07	967.07	0.00	0.00
1977	P-911	324.00	2.00	130.00	Open	0.68	1064.83	1064.82	0.01	0.00
1980	P-912	337.00	2.00	130.00	Open	0.96	1064.62	1064.61	0.01	0.00
1982	P-913	351.00	2.00	130.00	Open	-0.88	1064.61	1064.62	0.01	0.00
1985	P-914	355.00	2.00	130.00	Open	0.55	973.48	973.47	0.01	0.00
1988	P-915	374.00	2.00	130.00	Open	0.68	1064.62	1064.61	0.01	0.00
1991	P-916	390.00	2.00	130.00	Open	0.46	993.32	993.32	0.00	0.00
1994	P-917	359.00	2.00	130.00	Open	0.88	1201.27	1201.26	0.01	0.00
1997	P-918	423.00	2.00	130.00	Open	-0.55	993.36	993.37	0.01	0.00
2000	P-919	373.00	2.00	130.00	Open	0.63	1022.87	1022.86	0.01	0.00
2003	P-920	374.00	2.00	130.00	Open	0.72	993.38	993.37	0.01	0.00
2006	P-921	374.00	2.00	130.00	Open	-1.88	1059.11	1059.16	0.05	0.00
2008	P-922	397.00	2.00	130.00	Open	1.28	1061.60	1061.57	0.03	0.00
2011	P-923	407.00	2.00	130.00	Open	-0.89	993.34	993.35	0.01	0.00
2014	P-924	504.00	2.00	130.00	Open	0.46	962.42	962.41	0.01	0.00
2016	P-925	714.00	2.00	130.00	Open	0.37	1022.90	1022.89	0.01	0.00
2019	P-926	572.00	2.00	130.00	Open	0.72	1022.91	1022.90	0.01	0.00
2021	P-927	568.00	2.00	130.00	Open	0.20	1216.98	1216.98	0.00	0.00
2023	P-928	755.00	2.00	130.00	Open	-0.37	961.56	961.57	0.01	0.00
2025	P-929	892.00	2.00	130.00	Open	0.55	991.16	991.15	0.01	0.00
2028	P-930	903.00	2.00	130.00	Open	0.08	873.78	873.78	0.00	0.00
2031	P-931	974.00	2.00	130.00	Open	-0.68	1057.79	1057.81	0.02	0.00
2034	P-932	1630.00	2.00	130.00	Open	-1.06	1022.80	1022.88	0.08	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2037	P-933	6.00	20.00	130.00	Open	3.56	1218.03	1218.03	0.00	0.00
2040	P-934	7.00	20.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
2042	P-935	16.00	20.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
2045	P-936	24.00	20.00	130.00	Open	3.16	1218.03	1218.03	0.00	0.00
2047	P-937	62.00	20.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
2049	P-938	203.00	20.00	130.00	Open	3.96	1218.03	1218.03	0.00	0.00
2051	P-939	291.00	20.00	130.00	Open	40.90	1218.03	1218.03	0.00	0.00
2054	P-940	326.00	20.00	130.00	Open	-746.88	1064.88	1064.92	0.04	0.00
2056	P-941	446.00	20.00	130.00	Open	43.00	1218.04	1218.03	0.00	0.00
2057	P-942	526.00	20.00	130.00	Open	4.62	1218.03	1218.03	0.00	0.00
2058	P-943	604.00	20.00	130.00	Open	36.75	1218.03	1218.03	0.00	0.00
2060	P-944	679.00	20.00	130.00	Open	-475.27	1063.48	1063.52	0.04	0.00
2063	P-945	682.00	20.00	130.00	Open	-708.83	1064.66	1064.74	0.08	0.00
2067	P-947	681.00	20.00	130.00	Open	37.81	1218.03	1218.03	0.00	0.00
2070	P-948	693.00	20.00	130.00	Open	37.23	1218.03	1218.03	0.00	0.00
2071	P-949	698.00	20.00	130.00	Open	39.43	1218.03	1218.03	0.00	0.00
2073	P-950	772.00	20.00	130.00	Open	-474.03	1063.44	1063.48	0.04	0.00
2075	P-951	1107.00	20.00	130.00	Open	36.26	1218.03	1218.03	0.00	0.00
2076	P-952	1245.00	20.00	130.00	Open	-711.55	1064.74	1064.88	0.14	0.00
2077	P-953	1364.00	20.00	130.00	Open	38.86	1218.03	1218.03	0.00	0.00
2079	P-954	1503.00	20.00	130.00	Open	38.29	1218.03	1218.03	0.00	0.00
2080	P-955	2209.00	20.00	130.00	Open	-598.40	1064.13	1064.31	0.18	0.00
2082	P-956	4305.00	20.00	130.00	Open	-598.47	1064.31	1064.66	0.35	0.00
2083	P-957	9624.00	20.00	130.00	Open	-526.32	1063.52	1064.13	0.62	0.00
2084	P-958	1.00	3.00	130.00	Open	-0.63	1218.02	1218.02	0.00	0.00
2087	P-959	6.00	3.00	130.00	Open	-0.60	1216.98	1216.98	0.00	0.00
2088	P-960	8.00	3.00	130.00	Open	1.09	1218.02	1218.02	0.00	0.00
2090	P-961	10.00	3.00	130.00	Open	-1.81	993.43	993.43	0.00	0.00
2093	P-962	13.00	3.00	130.00	Open	0.48	1059.06	1059.06	0.00	0.00
2096	P-963	25.00	3.00	130.00	Open	0.20	991.24	991.24	0.00	0.00
2099	P-964	43.00	3.00	130.00	Open	-0.20	993.39	993.39	0.00	0.00
2102	P-965	49.00	3.00	130.00	Open	0.88	1061.05	1061.05	0.00	0.00
2105	P-966	75.00	3.00	130.00	Open	1.40	993.35	993.35	0.00	0.00
2107	P-967	59.00	3.00	130.00	Open	1.48	1061.04	1061.04	0.00	0.00
2110	P-968	82.00	3.00	130.00	Open	-1.08	1062.90	1062.90	0.00	0.00
2113	P-969	80.00	3.00	130.00	Open	-0.48	1057.76	1057.76	0.00	0.00
2116	P-970	90.00	3.00	130.00	Open	0.92	993.32	993.32	0.00	0.00
2118	P-971	212.00	3.00	130.00	Open	0.68	1061.62	1061.61	0.00	0.00
2121	P-972	151.00	3.00	130.00	Open	-0.88	1060.36	1060.36	0.00	0.00
2124	P-973	98.00	3.00	130.00	Open	0.48	1059.69	1059.69	0.00	0.00
2127	P-974	101.00	3.00	130.00	Open	5.82	991.19	991.18	0.02	0.00
2130	P-975	198.00	3.00	130.00	Open	0.88	1059.35	1059.35	0.00	0.00
2133	P-976	102.00	3.00	130.00	Open	0.72	1218.03	1218.03	0.00	0.00
2136	P-977	106.00	3.00	130.00	Open	-0.88	1056.73	1056.73	0.00	0.00
2139	P-978	291.00	3.00	130.00	Open	-0.68	1060.45	1060.45	0.00	0.00
2142	P-979	114.00	3.00	130.00	Open	0.68	1059.69	1059.69	0.00	0.00
2144	P-980	117.00	3.00	130.00	Open	0.92	967.07	967.07	0.00	0.00
2147	P-981	151.00	3.00	130.00	Open	0.88	1061.62	1061.62	0.00	0.00
2150	P-982	174.00	3.00	130.00	Open	0.76	981.47	981.47	0.00	0.00
2152	P-983	175.00	3.00	130.00	Open	1.58	993.39	993.39	0.00	0.00
2154	P-984	211.00	3.00	130.00	Open	-0.68	1060.45	1060.45	0.00	0.00
2157	P-985	135.00	3.00	130.00	Open	1.56	1058.76	1058.76	0.00	0.00
2159	P-986	135.00	3.00	130.00	Open	1.28	1056.94	1056.94	0.00	0.00
2162	P-987	178.00	3.00	130.00	Open	1.08	1059.43	1059.43	0.00	0.00
2165	P-988	250.00	3.00	130.00	Open	0.68	1064.83	1064.83	0.00	0.00
2168	P-989	223.00	3.00	130.00	Open	1.28	1064.11	1064.11	0.00	0.00
2171	P-990	149.00	3.00	130.00	Open	-0.68	1062.01	1062.01	0.00	0.00
2174	P-991	150.00	3.00	130.00	Open	-2.24	1062.01	1062.02	0.00	0.00
2176	P-992	165.00	3.00	130.00	Open	0.68	1057.76	1057.76	0.00	0.00
2179	P-993	274.00	3.00	130.00	Open	0.88	1057.76	1057.76	0.00	0.00
2182	P-994	177.00	3.00	130.00	Open	-0.68	1061.28	1061.29	0.00	0.00
2185	P-995	176.00	3.00	130.00	Open	2.24	1019.32	1019.31	0.00	0.00
2188	P-996	179.00	3.00	130.00	Open	1.16	1059.26	1059.26	0.00	0.00
2190	P-997	248.00	3.00	130.00	Open	-1.88	1059.43	1059.43	0.00	0.00
2193	P-998	200.00	3.00	130.00	Open	0.68	1061.61	1061.61	0.00	0.00
2196	P-999	184.00	3.00	130.00	Open	0.96	1061.85	1061.85	0.00	0.00
2198	P-1000	227.00	3.00	130.00	Open	-0.68	1057.76	1057.76	0.00	0.00
2201	P-1001	214.00	3.00	130.00	Open	-1.09	993.37	993.37	0.00	0.00
2203	P-1002	197.00	3.00	130.00	Open	1.16	1061.61	1061.61	0.00	0.00
2205	P-1003	199.00	3.00	130.00	Open	0.88	1064.86	1064.85	0.00	0.00
2208	P-1004	201.00	3.00	130.00	Open	1.23	1059.69	1059.69	0.00	0.00
2209	P-1005	210.00	3.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
2212	P-1006	220.00	3.00	130.00	Open	0.72	993.42	993.42	0.00	0.00
2215	P-1007	218.00	3.00	130.00	Open	0.46	967.17	967.17	0.00	0.00
2218	P-1008	221.00	3.00	130.00	Open	-0.72	993.41	993.42	0.00	0.00
2221	P-1009	237.00	3.00	130.00	Open	1.47	1061.85	1061.84	0.00	0.00
2223	P-1010	236.00	3.00	130.00	Open	-0.68	825.46	825.46	0.00	0.00
2226	P-1011	241.00	3.00	130.00	Open	0.66	967.07	967.07	0.00	0.00
2228	P-1012	245.00	3.00	130.00	Open	-0.88	1062.01	1062.01	0.00	0.00
2230	P-1013	256.00	3.00	130.00	Open	1.56	1064.85	1064.85	0.00	0.00
2232	P-1014	254.00	3.00	130.00	Open	-0.88	1057.82	1057.82	0.00	0.00
2235	P-1015	249.00	3.00	130.00	Open	0.66	993.42	993.42	0.00	0.00
2237	P-1016	254.00	3.00	130.00	Open	0.92	993.43	993.43	0.00	0.00
2239	P-1017	258.00	3.00	130.00	Open	0.48	1058.25	1058.25	0.00	0.00
2241	P-1018	291.00	3.00	130.00	Open	1.08	1064.86	1064.86	0.00	0.00
2244	P-1019	313.00	3.00	130.00	Open	0.81	991.24	991.24	0.00	0.00
2246	P-1020	336.00	3.00	130.00	Open	0.88	1063.95	1063.95	0.00	0.00
2249	P-1021	300.00	3.00	130.00	Open	0.63	993.43	993.43	0.00	0.00
2251	P-1022	432.00	3.00	130.00	Open	1.28	1060.85	1060.85	0.00	0.00
2254	P-1023	327.00	3.00	130.00	Open	1.72	991.25	991.24	0.01	0.00
2256	P-1024	313.00	3.00	130.00	Open	0.88	1064.87	1064.87	0.00	0.00
2259	P-1025	331.00	3.00	130.00	Open	0.96	1059.00	1058.99	0.00	0.00
2261	P-1026	332.00	3.00	130.00	Open	0.63	967.41	967.41	0.00	0.00
2264	P-1027	464.00	3.00	130.00	Open	0.88	1057.76	1057.75	0.00	0.00
2267	P-1028	343.00	3.00	130.00	Open	-1.35	993.32	993.32	0.00	0.00
2268	P-1029	372.00	3.00	130.00	Open	-0.72	967.07	967.07	0.00	0.00
2271	P-1030	413.00	3.00	130.00	Open	0.72	967.41	967.41	0.00	0.00
2274	P-1031	392.00	3.00	130.00	Open	0.88	1062.35	1062.35	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2277	P-1032	350.00	3.00	130.00	Open	-0.72	993.42	993.43	0.00	0.00
2279	P-1033	394.00	3.00	130.00	Open	0.55	991.26	991.26	0.00	0.00
2282	P-1034	358.00	3.00	130.00	Open	-4.60	825.46	825.50	0.04	0.00
2284	P-1035	375.00	3.00	130.00	Open	1.76	1061.85	1061.84	0.01	0.00
2286	P-1036	387.00	3.00	130.00	Open	0.96	1059.00	1058.99	0.00	0.00
2288	P-1037	378.00	3.00	130.00	Open	-0.89	967.17	967.17	0.00	0.00
2291	P-1038	510.00	3.00	130.00	Open	0.68	1064.84	1064.84	0.00	0.00
2294	P-1039	403.00	3.00	130.00	Open	-0.88	825.36	825.36	0.00	0.00
2297	P-1040	409.00	3.00	130.00	Open	0.55	991.26	991.26	0.00	0.00
2300	P-1041	468.00	3.00	130.00	Open	0.72	991.18	991.18	0.00	0.00
2302	P-1042	465.00	3.00	130.00	Open	0.63	993.48	993.48	0.00	0.00
2305	P-1043	477.00	3.00	130.00	Open	0.55	1019.32	1019.32	0.00	0.00
2307	P-1044	429.00	3.00	130.00	Open	1.08	1063.57	1063.57	0.00	0.00
2310	P-1045	447.00	3.00	130.00	Open	1.48	1057.82	1057.81	0.01	0.00
2312	P-1046	444.00	3.00	130.00	Open	1.08	1059.04	1059.04	0.00	0.00
2315	P-1047	506.00	3.00	130.00	Open	0.88	825.50	825.50	0.00	0.00
2317	P-1048	456.00	3.00	130.00	Open	1.18	993.39	993.38	0.00	0.00
2318	P-1049	540.00	3.00	130.00	Open	0.20	967.41	967.41	0.00	0.00
2320	P-1050	500.00	3.00	130.00	Open	-0.37	991.16	991.16	0.00	0.00
2323	P-1051	509.00	3.00	130.00	Open	0.55	991.22	991.22	0.00	0.00
2326	P-1052	496.00	3.00	130.00	Open	0.74	993.35	993.34	0.00	0.00
2327	P-1053	587.00	3.00	130.00	Open	-0.48	1060.81	1060.81	0.00	0.00
2330	P-1054	514.00	3.00	130.00	Open	-1.56	1062.01	1062.02	0.01	0.00
2332	P-1055	548.00	3.00	130.00	Open	-0.89	993.41	993.42	0.00	0.00
2335	P-1056	527.00	3.00	130.00	Open	-2.81	993.32	993.35	0.02	0.00
2337	P-1058	567.00	3.00	130.00	Open	-1.41	991.27	991.28	0.01	0.00
2340	P-1059	662.00	3.00	130.00	Open	0.81	1019.31	1019.31	0.00	0.00
2342	P-1060	597.00	3.00	130.00	Open	1.68	1059.04	1059.03	0.01	0.00
2345	P-1061	669.00	3.00	130.00	Open	1.42	1059.06	1059.05	0.01	0.00
2347	P-1062	809.00	3.00	130.00	Open	3.18	1059.10	1059.06	0.04	0.00
2349	P-1063	901.00	3.00	130.00	Open	-1.21	967.41	967.42	0.01	0.00
2351	P-1064	864.00	3.00	130.00	Open	0.72	1019.31	1019.31	0.00	0.00
2353	P-1065	956.00	3.00	130.00	Open	-1.48	825.35	825.36	0.01	0.00
2355	P-1066	1412.00	3.00	130.00	Open	1.56	1064.62	1064.60	0.02	0.00
2358	P-1067	1376.00	3.00	130.00	Open	-3.85	825.36	825.46	0.10	0.00
2359	P-1068	1333.00	3.00	130.00	Open	1.35	993.37	993.35	0.01	0.00
2361	P-1069	1399.00	3.00	130.00	Open	0.68	1059.49	1059.48	0.00	0.00
2364	P-1070	1.00	30.00	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
2367	P-1071	73.00	30.00	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
2370	P-1072	131.00	30.00	130.00	Open	-25.37	1064.63	1064.63	0.00	0.00
2373	P-1073	173.00	30.00	130.00	Open	-37.01	1064.63	1064.63	0.00	0.00
2376	P-1074	232.00	30.00	130.00	Open	-44.89	1064.63	1064.63	0.00	0.00
2377	P-1075	398.00	30.00	130.00	Open	-35.04	1064.63	1064.63	0.00	0.00
2380	P-1076	507.00	30.00	130.00	Open	-27.14	1064.63	1064.63	0.00	0.00
2383	P-1077	685.00	30.00	130.00	Open	-36.35	1064.63	1064.63	0.00	0.00
2386	P-1078	628.00	30.00	130.00	Open	-25.72	1064.63	1064.63	0.00	0.00
2388	P-1079	737.00	30.00	130.00	Open	-26.48	1064.63	1064.63	0.00	0.00
2390	P-1080	759.00	30.00	130.00	Open	-30.98	1064.63	1064.63	0.00	0.00
2392	P-1081	653.00	30.00	130.00	Open	-36.66	1064.63	1064.63	0.00	0.00
2394	P-1082	688.00	30.00	130.00	Open	-34.88	1064.63	1064.63	0.00	0.00
2396	P-1083	681.00	30.00	130.00	Open	-29.16	1064.63	1064.63	0.00	0.00
2399	P-1084	711.00	30.00	130.00	Open	-29.01	1064.63	1064.63	0.00	0.00
2401	P-1085	698.00	30.00	130.00	Open	-28.65	1064.63	1064.63	0.00	0.00
2403	P-1086	740.00	30.00	130.00	Open	-26.78	1064.63	1064.63	0.00	0.00
2405	P-1087	712.00	30.00	130.00	Open	-26.63	1064.63	1064.63	0.00	0.00
2406	P-1088	746.00	30.00	130.00	Open	-32.29	1064.63	1064.63	0.00	0.00
2408	P-1090	968.00	30.00	130.00	Open	-36.00	1064.63	1064.63	0.00	0.00
2409	P-1091	1272.00	30.00	130.00	Open	-28.10	1064.63	1064.63	0.00	0.00
2410	P-1092	2516.00	30.00	130.00	Open	-29.92	1064.63	1064.63	0.00	0.00
2411	P-1093	3501.00	30.00	130.00	Open	-10.09	1064.63	1064.63	0.00	0.00
2412	P-1094	8158.00	36.00	130.00	Open	14.40	1064.63	1064.63	0.00	0.00
2413	P-1095	1.00	4.00	130.00	Open	-3.50	973.48	973.48	0.00	0.00
2416	P-1096	3.00	4.00	130.00	Open	-0.20	963.60	963.60	0.00	0.00
2418	P-1097	3.00	4.00	130.00	Open	0.29	960.64	960.64	0.00	0.00
2421	P-1098	6.00	4.00	130.00	Open	3.24	991.16	991.16	0.00	0.00
2423	P-1099	6.00	4.00	130.00	Open	-0.20	967.43	967.43	0.00	0.00
2426	P-1100	6.00	4.00	130.00	Closed	0.00	1022.96	1218.60	0.00	0.00
2429	P-1101	6.00	4.00	130.00	Open	4.90	991.25	991.25	0.00	0.00
2432	P-1102	6.00	4.00	130.00	Open	-0.20	988.98	988.98	0.00	0.00
2434	P-1103	7.00	4.00	130.00	Open	0.76	1061.05	1061.05	0.00	0.00
2436	P-1104	7.00	4.00	130.00	Open	0.28	1058.69	1058.69	0.00	0.00
2439	P-1105	9.00	4.00	130.00	Open	-0.37	973.48	973.48	0.00	0.00
2441	P-1106	9.00	4.00	130.00	Open	0.56	1061.04	1061.04	0.00	0.00
2442	P-1107	9.00	4.00	130.00	Open	9.64	1059.86	1059.86	0.00	0.00
2445	P-1108	9.00	4.00	130.00	Open	2.29	1059.89	1059.89	0.00	0.00
2448	P-1109	10.00	4.00	130.00	Open	1.50	960.69	960.69	0.00	0.00
2451	P-1110	11.00	4.00	130.00	Open	0.96	1061.02	1061.02	0.00	0.00
2452	P-1111	11.00	4.00	130.00	Open	1.16	1063.48	1063.48	0.00	0.00
2454	P-1112	13.00	4.00	130.00	Open	-0.80	973.48	973.48	0.00	0.00
2456	P-1113	13.00	4.00	130.00	Open	1.08	1058.76	1058.76	0.00	0.00
2459	P-1114	13.00	4.00	130.00	Open	0.88	1058.76	1058.76	0.00	0.00
2462	P-1115	14.00	4.00	130.00	Open	0.68	1060.81	1060.81	0.00	0.00
2465	P-1116	15.00	4.00	130.00	Open	0.28	1059.86	1059.86	0.00	0.00
2467	P-1117	15.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2470	P-1118	16.00	4.00	130.00	Open	2.01	973.48	973.48	0.00	0.00
2471	P-1119	16.00	4.00	130.00	Open	-11.48	1217.77	1217.78	0.00	0.00
2474	P-1120	17.00	4.00	130.00	Open	1.26	973.48	973.48	0.00	0.00
2475	P-1121	17.00	4.00	130.00	Open	0.68	1061.05	1061.05	0.00	0.00
2477	P-1122	18.00	4.00	130.00	Open	0.08	1059.53	1059.53	0.00	0.00
2480	P-1123	20.00	4.00	130.00	Open	-1.08	1058.76	1058.76	0.00	0.00
2484	P-1125	30.00	4.00	130.00	Open	1.16	1059.49	1059.49	0.00	0.00
2486	P-1126	31.00	4.00	130.00	Open	-0.83	1057.79	1057.79	0.00	0.00
2489	P-1127	31.00	4.00	130.00	Open	3.88	1058.76	1058.76	0.00	0.00
2491	P-1128	33.00	4.00	130.00	Open	0.96	1201.27	1201.27	0.00	0.00
2492	P-1129	33.00	4.00	130.00	Open	1.56	1201.27	1201.27	0.00	0.00
2495	P-1130	38.00	4.00	130.00	Open	-2.36	973.48	973.48	0.00	0.00
2496	P-1131	47.00	4.00	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
2499	P-1132	39.00	4.00	130.00	Open	1.68	1058.76	1058.76	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2501	P-1133	40.00	4.00	130.00	Open	0.28	1064.63	1064.63	0.00	0.00
2504	P-1134	44.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2506	P-1135	47.00	4.00	130.00	Open	-4.19	973.48	973.48	0.00	0.00
2507	P-1136	48.00	4.00	130.00	Open	4.20	1218.60	1218.60	0.00	0.00
2509	P-1137	50.00	4.00	130.00	Open	0.76	1061.61	1061.61	0.00	0.00
2511	P-1138	53.00	4.00	130.00	Open	0.28	1058.64	1058.64	0.00	0.00
2513	P-1139	65.00	4.00	130.00	Open	2.72	1061.02	1061.02	0.00	0.00
2515	P-1140	63.00	4.00	130.00	Open	-0.88	1063.97	1063.97	0.00	0.00
2518	P-1141	64.00	4.00	130.00	Open	1.31	1059.33	1059.33	0.00	0.00
2521	P-1142	65.00	4.00	130.00	Open	4.09	1058.64	1058.64	0.00	0.00
2523	P-1143	65.00	4.00	130.00	Open	0.96	1059.72	1059.72	0.00	0.00
2526	P-1144	67.00	4.00	130.00	Open	0.48	1058.64	1058.64	0.00	0.00
2528	P-1145	69.00	4.00	130.00	Open	0.48	1060.19	1060.19	0.00	0.00
2531	P-1146	70.00	4.00	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
2533	P-1147	70.00	4.00	130.00	Open	-1.87	1022.88	1022.88	0.00	0.00
2536	P-1148	71.00	4.00	130.00	Open	1.51	1061.05	1061.05	0.00	0.00
2537	P-1149	71.00	4.00	130.00	Open	0.26	1322.91	1322.91	0.00	0.00
2539	P-1150	72.00	4.00	130.00	Open	-1.64	1057.78	1057.78	0.00	0.00
2542	P-1151	73.00	4.00	130.00	Open	1.84	1061.07	1061.07	0.00	0.00
2543	P-1152	74.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2546	P-1153	78.00	4.00	130.00	Open	2.23	960.64	960.64	0.00	0.00
2549	P-1154	91.00	4.00	130.00	Open	1.08	1059.94	1059.94	0.00	0.00
2552	P-1155	100.00	4.00	130.00	Open	0.48	1061.93	1061.93	0.00	0.00
2555	P-1156	93.00	4.00	130.00	Open	-0.20	973.48	973.48	0.00	0.00
2557	P-1157	105.00	4.00	130.00	Open	0.29	991.16	991.16	0.00	0.00
2559	P-1158	109.00	4.00	130.00	Open	-12.20	1022.94	1022.96	0.02	0.00
2561	P-1159	110.00	4.00	130.00	Open	-1.71	1060.81	1060.81	0.00	0.00
2563	P-1160	113.00	4.00	130.00	Open	0.76	1064.62	1064.62	0.00	0.00
2565	P-1161	120.00	4.00	130.00	Open	1.51	1201.27	1201.27	0.00	0.00
2566	P-1162	176.00	4.00	130.00	Open	-1.68	1060.80	1060.80	0.00	0.00
2569	P-1163	126.00	4.00	130.00	Open	1.03	981.47	981.47	0.00	0.00
2571	P-1164	186.00	4.00	130.00	Open	2.52	1061.05	1061.04	0.00	0.00
2573	P-1165	128.00	4.00	130.00	Open	-1.68	1057.54	1057.54	0.00	0.00
2576	P-1166	130.00	4.00	130.00	Open	1.08	1064.62	1064.62	0.00	0.00
2579	P-1167	180.00	4.00	130.00	Open	-0.68	1060.81	1060.81	0.00	0.00
2581	P-1168	133.00	4.00	130.00	Open	2.49	991.16	991.16	0.00	0.00
2582	P-1169	232.00	4.00	130.00	Open	1.28	1062.42	1062.41	0.00	0.00
2585	P-1170	155.00	4.00	130.00	Open	1.36	1061.60	1061.60	0.00	0.00
2587	P-1171	146.00	4.00	130.00	Open	1.08	1059.94	1059.94	0.00	0.00
2589	P-1172	227.00	4.00	130.00	Open	0.68	1064.21	1064.21	0.00	0.00
2592	P-1173	235.00	4.00	130.00	Open	0.88	1064.21	1064.21	0.00	0.00
2595	P-1174	285.00	4.00	130.00	Open	-0.88	1060.80	1060.80	0.00	0.00
2598	P-1175	145.00	4.00	130.00	Open	-7.76	1322.92	1322.93	0.01	0.00
2600	P-1176	146.00	4.00	130.00	Open	0.88	1062.86	1062.86	0.00	0.00
2603	P-1177	149.00	4.00	130.00	Open	1.03	1063.90	1063.90	0.00	0.00
2606	P-1178	157.00	4.00	130.00	Open	-1.16	1058.02	1058.02	0.00	0.00
2608	P-1179	159.00	4.00	130.00	Open	1.68	1057.54	1057.54	0.00	0.00
2610	P-1180	200.00	4.00	130.00	Open	-0.68	1058.36	1058.36	0.00	0.00
2613	P-1181	164.00	4.00	130.00	Open	0.88	1063.90	1063.90	0.00	0.00
2615	P-1182	157.00	4.00	130.00	Open	-0.48	1058.64	1058.64	0.00	0.00
2618	P-1183	165.00	4.00	130.00	Open	-3.44	967.07	967.08	0.00	0.00
2621	P-1184	265.00	4.00	130.00	Open	0.48	1063.37	1063.37	0.00	0.00
2624	P-1185	175.00	4.00	130.00	Open	1.19	981.47	981.47	0.00	0.00
2626	P-1186	173.00	4.00	130.00	Open	1.12	967.07	967.07	0.00	0.00
2627	P-1187	206.00	4.00	130.00	Open	1.16	1064.36	1064.36	0.00	0.00
2628	P-1188	179.00	4.00	130.00	Open	1.28	1058.27	1058.27	0.00	0.00
2631	P-1189	181.00	4.00	130.00	Open	-0.88	1057.40	1057.40	0.00	0.00
2634	P-1190	180.00	4.00	130.00	Open	0.48	1059.15	1059.15	0.00	0.00
2637	P-1191	180.00	4.00	130.00	Open	-0.76	1060.81	1060.81	0.00	0.00
2638	P-1192	184.00	4.00	130.00	Open	0.88	1063.79	1063.79	0.00	0.00
2640	P-1193	192.00	4.00	130.00	Open	0.88	1063.91	1063.91	0.00	0.00
2643	P-1194	187.00	4.00	130.00	Open	-0.88	1057.93	1057.93	0.00	0.00
2646	P-1195	225.00	4.00	130.00	Open	0.88	1063.37	1063.37	0.00	0.00
2649	P-1196	188.00	4.00	130.00	Open	-0.55	991.26	991.26	0.00	0.00
2651	P-1197	195.00	4.00	130.00	Open	0.88	981.47	981.47	0.00	0.00
2654	P-1198	204.00	4.00	130.00	Open	1.36	1062.12	1062.12	0.00	0.00
2656	P-1199	206.00	4.00	130.00	Open	-0.88	981.49	981.49	0.00	0.00
2658	P-1200	286.00	4.00	130.00	Open	1.44	967.13	967.13	0.00	0.00
2660	P-1201	210.00	4.00	130.00	Open	-0.88	981.47	981.47	0.00	0.00
2663	P-1202	236.00	4.00	130.00	Open	1.18	963.60	963.60	0.00	0.00
2664	P-1203	218.00	4.00	130.00	Open	-1.08	1060.81	1060.81	0.00	0.00
2666	P-1204	219.00	4.00	130.00	Open	1.36	1062.01	1062.01	0.00	0.00
2668	P-1205	223.00	4.00	130.00	Open	-4.97	973.52	973.53	0.01	0.00
2671	P-1206	231.00	4.00	130.00	Open	0.96	1061.60	1061.60	0.00	0.00
2673	P-1207	233.00	4.00	130.00	Open	1.08	981.47	981.47	0.00	0.00
2676	P-1208	235.00	4.00	130.00	Open	1.28	1058.34	1058.34	0.00	0.00
2679	P-1209	235.00	4.00	130.00	Open	-2.30	991.28	991.28	0.00	0.00
2681	P-1210	236.00	4.00	130.00	Open	2.07	993.37	993.37	0.00	0.00
2683	P-1211	238.00	4.00	130.00	Open	0.48	1057.79	1057.79	0.00	0.00
2685	P-1212	238.00	4.00	130.00	Open	1.08	1061.63	1061.63	0.00	0.00
2688	P-1213	242.00	4.00	130.00	Open	1.08	981.47	981.47	0.00	0.00
2691	P-1214	243.00	4.00	130.00	Open	-0.88	981.47	981.47	0.00	0.00
2693	P-1215	244.00	4.00	130.00	Open	-0.37	991.16	991.16	0.00	0.00
2696	P-1216	258.00	4.00	130.00	Open	-0.88	1060.83	1060.83	0.00	0.00
2699	P-1217	247.00	4.00	130.00	Open	0.68	1063.71	1063.71	0.00	0.00
2702	P-1218	255.00	4.00	130.00	Open	-0.72	967.35	967.35	0.00	0.00
2705	P-1219	248.00	4.00	130.00	Open	-1.76	1064.07	1064.07	0.00	0.00
2707	P-1220	252.00	4.00	130.00	Open	-1.28	981.47	981.47	0.00	0.00
2710	P-1221	250.00	4.00	130.00	Open	0.68	1063.75	1063.75	0.00	0.00
2713	P-1222	253.00	4.00	130.00	Open	0.56	1064.63	1064.63	0.00	0.00
2715	P-1223	283.00	4.00	130.00	Open	-1.77	967.07	967.07	0.00	0.00
2716	P-1224	254.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2718	P-1225	323.00	4.00	130.00	Open	-1.48	1060.83	1060.83	0.00	0.00
2721	P-1226	267.00	4.00	130.00	Open	1.56	1063.37	1063.37	0.00	0.00
2723	P-1227	272.00	4.00	130.00	Open	0.88	1057.40	1057.40	0.00	0.00
2726	P-1228	273.00	4.00	130.00	Open	-1.36	1060.84	1060.84	0.00	0.00
2728	P-1229	316.00	4.00	130.00	Open	0.88	1058.95	1058.95	0.00	0.00
2731	P-1230	276.00	4.00	130.00	Open	1.88	1057.76	1057.76	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2734	P-1231	281.00	4.00	130.00	Open	1.56	1063.38	1063.38	0.00	0.00
2736	P-1232	284.00	4.00	130.00	Open	1.40	1058.64	1058.64	0.00	0.00
2739	P-1233	287.00	4.00	130.00	Open	-7.89	973.48	973.50	0.02	0.00
2741	P-1234	287.00	4.00	130.00	Open	-1.48	1061.65	1061.66	0.00	0.00
2744	P-1235	295.00	4.00	130.00	Open	1.08	1061.30	1061.30	0.00	0.00
2747	P-1236	323.00	4.00	130.00	Open	1.08	1058.95	1058.95	0.00	0.00
2750	P-1237	325.00	4.00	130.00	Open	1.16	1058.81	1058.81	0.00	0.00
2752	P-1238	302.00	4.00	130.00	Open	1.48	1064.62	1064.62	0.00	0.00
2755	P-1239	297.00	4.00	130.00	Open	3.25	967.42	967.41	0.00	0.00
2756	P-1240	300.00	4.00	130.00	Open	1.28	1064.62	1064.62	0.00	0.00
2759	P-1241	302.00	4.00	130.00	Open	4.54	993.44	993.43	0.01	0.00
2761	P-1242	307.00	4.00	130.00	Open	0.68	960.64	960.64	0.00	0.00
2763	P-1243	303.00	4.00	130.00	Open	-0.68	1057.82	1057.82	0.00	0.00
2766	P-1244	316.00	4.00	130.00	Open	2.64	1061.60	1061.60	0.00	0.00
2768	P-1245	326.00	4.00	130.00	Open	0.88	981.48	981.48	0.00	0.00
2770	P-1246	314.00	4.00	130.00	Open	1.36	1057.81	1057.81	0.00	0.00
2772	P-1247	317.00	4.00	130.00	Open	-0.88	1064.63	1064.63	0.00	0.00
2775	P-1248	315.00	4.00	130.00	Open	1.08	981.47	981.47	0.00	0.00
2778	P-1249	320.00	4.00	130.00	Open	-1.28	1060.96	1060.96	0.00	0.00
2781	P-1250	357.00	4.00	130.00	Open	1.08	1059.95	1059.95	0.00	0.00
2784	P-1251	595.00	4.00	130.00	Open	1.08	963.95	963.95	0.00	0.00
2787	P-1252	330.00	4.00	130.00	Open	-1.28	1057.78	1057.78	0.00	0.00
2789	P-1253	333.00	4.00	130.00	Open	-1.08	1057.81	1057.81	0.00	0.00
2792	P-1254	352.00	4.00	130.00	Open	1.56	1059.35	1059.35	0.00	0.00
2794	P-1255	342.00	4.00	130.00	Open	0.96	1064.62	1064.62	0.00	0.00
2796	P-1256	383.00	4.00	130.00	Open	3.07	973.51	973.50	0.00	0.00
2798	P-1257	353.00	4.00	130.00	Open	1.44	991.26	991.26	0.00	0.00
2800	P-1258	355.00	4.00	130.00	Open	-0.88	994.76	994.76	0.00	0.00
2803	P-1259	367.00	4.00	130.00	Open	1.48	1063.91	1063.91	0.00	0.00
2806	P-1260	359.00	4.00	130.00	Open	3.71	1022.94	1022.93	0.01	0.00
2807	P-1261	372.00	4.00	130.00	Open	1.36	1057.82	1057.82	0.00	0.00
2809	P-1262	369.00	4.00	130.00	Open	1.28	1057.45	1057.45	0.00	0.00
2812	P-1263	380.00	4.00	130.00	Open	1.56	1059.15	1059.15	0.00	0.00
2813	P-1264	509.00	4.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
2816	P-1265	378.00	4.00	130.00	Open	0.68	1063.71	1063.71	0.00	0.00
2819	P-1266	377.00	4.00	130.00	Open	-1.28	1057.68	1057.68	0.00	0.00
2822	P-1267	403.00	4.00	130.00	Open	-1.08	1057.84	1057.84	0.00	0.00
2825	P-1268	411.00	4.00	130.00	Open	5.18	967.43	967.42	0.01	0.00
2826	P-1269	387.00	4.00	130.00	Open	-1.64	991.26	991.26	0.00	0.00
2828	P-1270	441.00	4.00	130.00	Open	-0.48	981.47	981.47	0.00	0.00
2830	P-1271	388.00	4.00	130.00	Open	1.28	1059.72	1059.72	0.00	0.00
2833	P-1272	390.00	4.00	130.00	Open	1.48	1058.67	1058.67	0.00	0.00
2836	P-1273	393.00	4.00	130.00	Open	1.48	1060.80	1060.80	0.00	0.00
2839	P-1274	437.00	4.00	130.00	Open	-0.88	1061.62	1061.62	0.00	0.00
2842	P-1275	393.00	4.00	130.00	Open	0.68	960.64	960.64	0.00	0.00
2843	P-1276	3807.00	4.00	130.00	Open	-3.44	1322.86	1322.92	0.06	0.00
2845	P-1277	403.00	4.00	130.00	Open	0.86	967.07	967.07	0.00	0.00
2846	P-1278	445.00	4.00	130.00	Open	0.68	1063.87	1063.87	0.00	0.00
2849	P-1279	409.00	4.00	130.00	Open	0.68	1063.87	1063.87	0.00	0.00
2852	P-1280	444.00	4.00	130.00	Open	1.08	1057.80	1057.80	0.00	0.00
2855	P-1281	412.00	4.00	130.00	Open	1.44	993.42	993.42	0.00	0.00
2856	P-1282	414.00	4.00	130.00	Open	-0.68	1058.24	1058.24	0.00	0.00
2859	P-1283	429.00	4.00	130.00	Open	-2.18	993.43	993.43	0.00	0.00
2861	P-1284	419.00	4.00	130.00	Open	-1.28	1060.81	1060.81	0.00	0.00
2864	P-1285	423.00	4.00	130.00	Open	-1.44	967.17	967.17	0.00	0.00
2865	P-1286	513.00	4.00	130.00	Open	-2.93	973.48	973.48	0.01	0.00
2866	P-1287	446.00	4.00	130.00	Open	-1.88	981.47	981.48	0.00	0.00
2869	P-1288	426.00	4.00	130.00	Open	1.28	1064.62	1064.62	0.00	0.00
2872	P-1289	428.00	4.00	130.00	Open	4.55	991.18	991.17	0.01	0.00
2873	P-1290	521.00	4.00	130.00	Open	1.74	960.64	960.64	0.00	0.00
2874	P-1291	520.00	4.00	130.00	Open	-2.29	1060.86	1060.86	0.00	0.00
2877	P-1292	437.00	4.00	130.00	Open	0.48	1061.07	1061.07	0.00	0.00
2879	P-1293	438.00	4.00	130.00	Open	-1.48	1064.62	1064.62	0.00	0.00
2882	P-1294	445.00	4.00	130.00	Open	-1.08	1064.80	1064.80	0.00	0.00
2885	P-1295	444.00	4.00	130.00	Open	-0.98	1064.80	1064.80	0.00	0.00
2886	P-1296	450.00	4.00	130.00	Open	2.56	1064.63	1064.63	0.00	0.00
2888	P-1297	489.00	4.00	130.00	Open	0.88	1058.95	1058.95	0.00	0.00
2891	P-1298	476.00	4.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
2894	P-1299	477.00	4.00	130.00	Open	1.44	1060.81	1060.81	0.00	0.00
2895	P-1300	534.00	4.00	130.00	Open	-0.88	963.94	963.94	0.00	0.00
2898	P-1301	543.00	4.00	130.00	Open	-3.72	991.16	991.17	0.01	0.00
2899	P-1302	574.00	4.00	130.00	Open	-1.69	1058.64	1058.64	0.00	0.00
2901	P-1303	590.00	4.00	130.00	Open	1.96	1064.63	1064.63	0.00	0.00
2903	P-1304	562.00	4.00	130.00	Open	1.48	1060.90	1060.90	0.00	0.00
2905	P-1305	557.00	4.00	130.00	Open	-1.08	1060.99	1060.99	0.00	0.00
2907	P-1306	672.00	4.00	130.00	Open	0.83	960.64	960.64	0.00	0.00
2908	P-1307	526.00	4.00	130.00	Open	-7.94	1022.90	1022.94	0.04	0.00
2910	P-1308	529.00	4.00	130.00	Open	3.07	993.43	993.42	0.01	0.00
2911	P-1309	566.00	4.00	130.00	Open	-11.48	973.53	973.61	0.08	0.00
2912	P-1310	563.00	4.00	130.00	Open	0.89	993.37	993.37	0.00	0.00
2915	P-1311	579.00	4.00	130.00	Open	6.54	991.22	991.19	0.03	0.00
2916	P-1312	566.00	4.00	130.00	Open	-0.37	1022.87	1022.87	0.00	0.00
2918	P-1313	602.00	4.00	130.00	Open	-2.49	1058.61	1058.62	0.00	0.00
2921	P-1314	558.00	4.00	130.00	Open	5.75	991.28	991.26	0.02	0.00
2922	P-1315	585.00	4.00	130.00	Open	-1.48	1060.62	1060.62	0.00	0.00
2925	P-1316	573.00	4.00	130.00	Open	0.88	1063.48	1063.48	0.00	0.00
2927	P-1317	626.00	4.00	130.00	Open	1.48	1061.62	1061.62	0.00	0.00
2930	P-1318	600.00	4.00	130.00	Open	-2.17	1022.87	1022.87	0.00	0.00
2931	P-1319	596.00	4.00	130.00	Open	-3.17	1022.87	1022.88	0.01	0.00
2932	P-1320	606.00	4.00	130.00	Open	-3.74	993.42	993.43	0.01	0.00
2934	P-1321	614.00	4.00	130.00	Open	0.94	988.98	988.98	0.00	0.00
2936	P-1322	605.00	4.00	130.00	Open	-1.75	991.16	991.16	0.00	0.00
2937	P-1323	607.00	4.00	130.00	Open	-1.76	1064.87	1064.87	0.00	0.00
2939	P-1324	620.00	4.00	130.00	Open	0.89	1022.90	1022.89	0.00	0.00
2942	P-1325	627.00	4.00	130.00	Open	-1.61	993.42	993.42	0.00	0.00
2943	P-1326	630.00	4.00	130.00	Open	7.82	1059.58	1059.53	0.04	0.00
2946	P-1327	644.00	4.00	130.00	Open	2.33	967.36	967.35	0.00	0.00
2948	P-1328	644.00	4.00	130.00	Open	-8.61	967.13	967.18	0.05	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2950	P-1329	765.00	4.00	130.00	Open	-0.55	973.52	973.52	0.00	0.00
2952	P-1330	684.00	4.00	130.00	Open	-0.74	991.15	991.16	0.00	0.00
2953	P-1331	652.00	4.00	130.00	Open	0.89	967.35	967.35	0.00	0.00
2955	P-1332	660.00	4.00	130.00	Open	2.07	1022.90	1022.90	0.00	0.00
2956	P-1333	787.00	4.00	130.00	Open	-1.36	973.48	973.48	0.00	0.00
2958	P-1334	761.00	4.00	130.00	Open	1.90	967.41	967.41	0.00	0.00
2959	P-1335	814.00	4.00	130.00	Open	-1.43	973.48	973.48	0.00	0.00
2960	P-1336	729.00	4.00	130.00	Open	-5.62	973.50	973.53	0.03	0.00
2961	P-1337	688.00	4.00	130.00	Open	-5.50	1022.88	1022.90	0.02	0.00
2962	P-1338	725.00	4.00	130.00	Open	-4.93	993.35	993.37	0.02	0.00
2963	P-1339	736.00	4.00	130.00	Open	-2.14	1064.80	1064.81	0.00	0.00
2965	P-1340	747.00	4.00	130.00	Open	-1.28	994.76	994.76	0.00	0.00
2968	P-1341	783.00	4.00	130.00	Open	-1.78	967.07	967.08	0.00	0.00
2969	P-1342	764.00	4.00	130.00	Open	-0.68	1059.21	1059.21	0.00	0.00
2971	P-1343	764.00	4.00	130.00	Open	8.38	1059.63	1059.58	0.06	0.00
2973	P-1344	771.00	4.00	130.00	Open	-1.08	1061.94	1061.94	0.00	0.00
2976	P-1345	813.00	4.00	130.00	Open	3.96	973.52	973.51	0.02	0.00
2977	P-1346	828.00	4.00	130.00	Open	1.06	1022.90	1022.90	0.00	0.00
2979	P-1347	1017.00	4.00	130.00	Open	0.63	993.38	993.38	0.00	0.00
2982	P-1348	796.00	4.00	130.00	Open	-0.78	1064.80	1064.80	0.00	0.00
2984	P-1349	1327.00	4.00	130.00	Open	-1.28	1201.27	1201.27	0.00	0.00
2986	P-1350	814.00	4.00	130.00	Open	-1.08	1057.80	1057.80	0.00	0.00
2988	P-1351	875.00	4.00	130.00	Open	0.88	1064.83	1064.83	0.00	0.00
2993	P-1353	866.00	4.00	130.00	Open	9.29	1059.86	1059.78	0.08	0.00
2995	P-1354	868.00	4.00	130.00	Open	-2.96	967.17	967.18	0.01	0.00
2996	P-1355	955.00	4.00	130.00	Open	-0.48	1060.81	1060.81	0.00	0.00
2998	P-1356	1383.00	4.00	130.00	Open	-1.75	991.25	991.25	0.01	0.00
3000	P-1357	1714.00	4.00	130.00	Open	1.56	991.25	991.25	0.01	0.00
3001	P-1358	1057.00	4.00	130.00	Open	2.96	991.26	991.25	0.01	0.00
3002	P-1359	1087.00	4.00	130.00	Open	1.28	1064.85	1064.85	0.00	0.00
3005	P-1360	1123.00	4.00	130.00	Open	12.38	967.36	967.18	0.18	0.00
3007	P-1361	1171.00	4.00	130.00	Open	-6.46	967.08	967.13	0.06	0.00
3008	P-1362	1283.00	4.00	130.00	Open	7.40	960.77	960.69	0.08	0.00
3010	P-1363	1231.00	4.00	130.00	Open	7.80	991.30	991.22	0.08	0.00
3012	P-1364	1745.00	4.00	130.00	Open	2.42	1022.91	1022.90	0.01	0.00
3013	P-1365	1783.00	4.00	130.00	Open	4.84	960.69	960.64	0.05	0.00
3014	P-1366	2232.00	4.00	130.00	Open	4.20	1019.36	1019.32	0.05	0.00
3015	P-1367	1914.00	4.00	130.00	Open	-2.80	961.54	961.56	0.02	0.00
3017	P-1368	1733.00	4.00	130.00	Open	8.93	1059.78	1059.63	0.15	0.00
3018	P-1369	1900.00	4.00	130.00	Open	4.65	1059.94	1059.89	0.05	0.00
3020	P-1370	2656.00	4.00	130.00	Open	-1.08	1064.90	1064.91	0.00	0.00
3022	P-1371	3976.00	4.00	130.00	Open	3.69	1057.80	1057.73	0.07	0.00
3025	P-1372	7382.00	4.00	130.00	Open	1.48	1059.89	1059.87	0.02	0.00
3027	P-1373	1.00	6.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
3030	P-1374	3.00	6.00	130.00	Open	0.48	1058.68	1058.68	0.00	0.00
3033	P-1375	3.00	6.00	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
3035	P-1376	3.00	6.00	130.00	Open	12.99	1218.60	1218.60	0.00	0.00
3037	P-1377	3.00	6.00	130.00	Open	-0.08	981.47	981.47	0.00	0.00
3040	P-1378	3.00	6.00	130.00	Open	-0.08	1057.44	1057.44	0.00	0.00
3043	P-1379	4.00	6.00	130.00	Open	0.08	1060.05	1060.05	0.00	0.00
3046	P-1380	4.00	6.00	130.00	Open	0.20	1217.94	1217.94	0.00	0.00
3049	P-1381	4.00	6.00	130.00	Open	-1.72	1218.03	1218.03	0.00	0.00
3052	P-1382	4.00	6.00	130.00	Open	0.83	1058.06	1058.06	0.00	0.00
3054	P-1383	5.00	6.00	130.00	Open	0.46	1218.03	1218.03	0.00	0.00
3057	P-1384	5.00	6.00	130.00	Open	-0.08	1062.86	1062.86	0.00	0.00
3060	P-1385	5.00	6.00	130.00	Open	0.08	1057.41	1057.41	0.00	0.00
3063	P-1386	5.00	6.00	130.00	Open	-0.08	1058.12	1058.12	0.00	0.00
3066	P-1387	5.00	6.00	130.00	Open	0.28	1057.18	1057.18	0.00	0.00
3069	P-1388	5.00	6.00	130.00	Open	-7.88	1061.53	1061.53	0.00	0.00
3072	P-1389	5.00	6.00	130.00	Open	1.08	1064.62	1064.62	0.00	0.00
3075	P-1390	5.00	6.00	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
3077	P-1391	5.00	6.00	130.00	Open	0.08	1057.81	1057.81	0.00	0.00
3080	P-1392	5.00	6.00	130.00	Open	-0.28	1064.83	1064.83	0.00	0.00
3082	P-1393	6.00	6.00	130.00	Open	0.08	1064.87	1064.87	0.00	0.00
3085	P-1394	6.00	6.00	130.00	Open	0.48	1059.66	1059.66	0.00	0.00
3088	P-1395	6.00	6.00	130.00	Open	-12.59	1218.60	1218.60	0.00	0.00
3089	P-1396	6.00	6.00	130.00	Open	0.08	1057.76	1057.76	0.00	0.00
3092	P-1397	7.00	6.00	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
3095	P-1398	7.00	6.00	130.00	Open	0.48	1063.30	1063.30	0.00	0.00
3098	P-1399	7.00	6.00	130.00	Open	0.48	1063.30	1063.30	0.00	0.00
3101	P-1400	7.00	6.00	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
3104	P-1401	7.00	6.00	130.00	Open	1.44	1064.62	1064.62	0.00	0.00
3107	P-1402	7.00	6.00	130.00	Open	0.08	1058.71	1058.71	0.00	0.00
3110	P-1403	8.00	6.00	130.00	Open	0.08	1058.71	1058.71	0.00	0.00
3113	P-1404	8.00	6.00	130.00	Open	0.08	1057.51	1057.51	0.00	0.00
3116	P-1405	8.00	6.00	130.00	Open	2.64	1059.95	1059.95	0.00	0.00
3118	P-1406	8.00	6.00	130.00	Open	7.10	1057.77	1057.77	0.00	0.00
3121	P-1407	8.00	6.00	130.00	Open	0.28	1060.47	1060.47	0.00	0.00
3123	P-1408	8.00	6.00	130.00	Open	-1.19	1059.53	1059.53	0.00	0.00
3125	P-1409	9.00	6.00	130.00	Open	0.08	1059.70	1059.70	0.00	0.00
3127	P-1410	9.00	6.00	130.00	Open	-9.36	1058.38	1058.38	0.00	0.00
3130	P-1411	9.00	6.00	130.00	Open	1.84	1059.26	1059.26	0.00	0.00
3132	P-1412	9.00	6.00	130.00	Open	-0.08	1057.45	1057.45	0.00	0.00
3135	P-1413	9.00	6.00	130.00	Open	0.28	1059.16	1059.16	0.00	0.00
3138	P-1414	9.00	6.00	130.00	Open	0.08	1057.81	1057.81	0.00	0.00
3141	P-1415	9.00	6.00	130.00	Open	0.88	1057.47	1057.47	0.00	0.00
3144	P-1416	9.00	6.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
3147	P-1417	9.00	6.00	130.00	Open	-29.81	1057.18	1057.18	0.00	0.00
3149	P-1418	9.00	6.00	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
3151	P-1419	9.00	6.00	130.00	Open	-0.28	1064.28	1064.28	0.00	0.00
3153	P-1420	9.00	6.00	130.00	Open	0.48	1060.21	1060.21	0.00	0.00
3155	P-1421	10.00	6.00	130.00	Open	1.44	1057.41	1057.41	0.00	0.00
3158	P-1422	10.00	6.00	130.00	Open	0.37	1218.15	1218.15	0.00	0.00
3161	P-1423	10.00	6.00	130.00	Open	0.76	1064.83	1064.83	0.00	0.00
3163	P-1424	10.00	6.00	130.00	Open	-0.63	1056.91	1056.91	0.00	0.00
3165	P-1425	10.00	6.00	130.00	Open	1.03	1064.62	1064.62	0.00	0.00
3167	P-1426	11.00	6.00	130.00	Open	0.56	1059.94	1059.94	0.00	0.00
3169	P-1427	15.00	6.00	130.00	Open	7.40	1064.63	1064.63	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3171	P-1428	11.00	6.00	130.00	Open	-2.16	1060.81	1060.81	0.00	0.00
3173	P-1429	11.00	6.00	130.00	Open	-0.28	1059.53	1059.53	0.00	0.00
3176	P-1430	11.00	6.00	130.00	Open	-0.68	1058.75	1058.75	0.00	0.00
3179	P-1431	11.00	6.00	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
3182	P-1432	15.00	6.00	130.00	Open	-0.08	1064.79	1064.79	0.00	0.00
3185	P-1433	12.00	6.00	130.00	Open	0.48	1060.43	1060.43	0.00	0.00
3187	P-1434	12.00	6.00	130.00	Open	0.08	1057.44	1057.44	0.00	0.00
3190	P-1435	12.00	6.00	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
3192	P-1436	12.00	6.00	130.00	Open	0.08	1059.97	1059.97	0.00	0.00
3195	P-1437	12.00	6.00	130.00	Open	-0.76	1058.24	1058.24	0.00	0.00
3197	P-1438	12.00	6.00	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
3200	P-1439	12.00	6.00	130.00	Open	0.08	1059.10	1059.10	0.00	0.00
3203	P-1440	12.00	6.00	130.00	Open	1.51	1064.62	1064.62	0.00	0.00
3206	P-1441	12.00	6.00	130.00	Open	-1.36	1064.62	1064.62	0.00	0.00
3208	P-1442	12.00	6.00	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
3211	P-1443	12.00	6.00	130.00	Open	1.36	1064.62	1064.62	0.00	0.00
3212	P-1444	13.00	6.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
3215	P-1445	13.00	6.00	130.00	Open	0.68	1058.75	1058.75	0.00	0.00
3218	P-1446	13.00	6.00	130.00	Open	3.24	1064.87	1064.87	0.00	0.00
3220	P-1447	13.00	6.00	130.00	Open	0.20	1218.04	1218.04	0.00	0.00
3222	P-1448	13.00	6.00	130.00	Open	1.84	1060.06	1060.06	0.00	0.00
3225	P-1449	14.00	6.00	130.00	Open	0.28	1061.32	1061.32	0.00	0.00
3228	P-1450	14.00	6.00	130.00	Open	12.21	993.44	993.44	0.00	0.00
3231	P-1451	14.00	6.00	130.00	Open	-2.84	1062.02	1062.02	0.00	0.00
3233	P-1452	14.00	6.00	130.00	Open	-0.08	1057.67	1057.67	0.00	0.00
3236	P-1453	15.00	6.00	130.00	Open	-0.08	1061.62	1061.62	0.00	0.00
3239	P-1454	15.00	6.00	130.00	Open	0.96	1060.13	1060.13	0.00	0.00
3241	P-1455	15.00	6.00	130.00	Open	0.28	1064.62	1064.62	0.00	0.00
3244	P-1456	15.00	6.00	130.00	Open	-0.08	1057.59	1057.59	0.00	0.00
3247	P-1457	16.00	6.00	130.00	Open	-0.08	1057.80	1057.80	0.00	0.00
3250	P-1458	16.00	6.00	130.00	Open	0.68	1058.77	1058.77	0.00	0.00
3253	P-1459	16.00	6.00	130.00	Open	0.48	1064.19	1064.19	0.00	0.00
3256	P-1460	16.00	6.00	130.00	Open	1.64	1058.76	1058.76	0.00	0.00
3258	P-1461	16.00	6.00	130.00	Open	-0.26	1322.91	1322.91	0.00	0.00
3261	P-1462	16.00	6.00	130.00	Open	-2.76	1060.86	1060.86	0.00	0.00
3263	P-1463	17.00	6.00	130.00	Open	0.83	1058.78	1058.78	0.00	0.00
3266	P-1464	17.00	6.00	130.00	Open	1.44	1062.60	1062.60	0.00	0.00
3268	P-1465	17.00	6.00	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
3271	P-1466	17.00	6.00	130.00	Open	0.55	1218.03	1218.03	0.00	0.00
3274	P-1467	18.00	6.00	130.00	Open	0.88	1057.02	1057.02	0.00	0.00
3277	P-1468	18.00	6.00	130.00	Open	67.53	1058.09	1058.09	0.01	0.00
3280	P-1469	18.00	6.00	130.00	Open	-0.40	1218.15	1218.15	0.00	0.00
3282	P-1470	18.00	6.00	130.00	Open	2.04	1063.38	1063.38	0.00	0.00
3284	P-1471	18.00	6.00	130.00	Open	0.76	1060.08	1060.08	0.00	0.00
3286	P-1472	19.00	6.00	130.00	Open	3.40	1062.60	1062.60	0.00	0.00
3288	P-1473	19.00	6.00	130.00	Open	0.28	1059.10	1059.10	0.00	0.00
3291	P-1474	19.00	6.00	130.00	Open	0.08	1058.78	1058.78	0.00	0.00
3294	P-1475	19.00	6.00	130.00	Open	0.88	1059.26	1059.26	0.00	0.00
3296	P-1476	19.00	6.00	130.00	Open	0.83	1064.62	1064.62	0.00	0.00
3298	P-1477	20.00	6.00	130.00	Open	12.40	1057.82	1057.82	0.00	0.00
3300	P-1478	20.00	6.00	130.00	Open	2.04	1062.60	1062.60	0.00	0.00
3302	P-1479	21.00	6.00	130.00	Open	0.48	1062.60	1062.60	0.00	0.00
3304	P-1480	21.00	6.00	130.00	Open	0.96	1061.62	1061.62	0.00	0.00
3306	P-1481	21.00	6.00	130.00	Open	-0.60	1218.15	1218.15	0.00	0.00
3308	P-1482	22.00	6.00	130.00	Open	8.38	960.77	960.77	0.00	0.00
3310	P-1483	23.00	6.00	130.00	Open	-2.89	1064.81	1064.81	0.00	0.00
3312	P-1484	23.00	6.00	130.00	Open	-0.83	994.76	994.76	0.00	0.00
3314	P-1485	23.00	6.00	130.00	Open	4.91	993.44	993.44	0.00	0.00
3315	P-1486	24.00	6.00	130.00	Open	3.35	1218.03	1218.03	0.00	0.00
3318	P-1487	24.00	6.00	130.00	Open	0.08	1062.60	1062.60	0.00	0.00
3320	P-1488	24.00	6.00	130.00	Open	0.28	1064.63	1064.63	0.00	0.00
3323	P-1489	27.00	6.00	130.00	Open	-0.48	1060.33	1060.33	0.00	0.00
3326	P-1490	24.00	6.00	130.00	Open	1.03	1064.62	1064.62	0.00	0.00
3328	P-1491	24.00	6.00	130.00	Open	9.19	1058.67	1058.67	0.00	0.00
3331	P-1492	25.00	6.00	130.00	Open	0.08	1058.75	1058.75	0.00	0.00
3334	P-1493	26.00	6.00	130.00	Open	-0.40	1218.60	1218.60	0.00	0.00
3335	P-1494	26.00	6.00	130.00	Open	2.56	1059.73	1059.73	0.00	0.00
3337	P-1495	27.00	6.00	130.00	Open	-1.64	1063.37	1063.37	0.00	0.00
3339	P-1496	28.00	6.00	130.00	Open	1.29	1218.15	1218.15	0.00	0.00
3342	P-1497	29.00	6.00	130.00	Open	1.23	1057.82	1057.82	0.00	0.00
3344	P-1498	30.00	6.00	130.00	Open	0.28	1060.53	1060.53	0.00	0.00
3346	P-1499	30.00	6.00	130.00	Open	0.55	988.98	988.98	0.00	0.00
3349	P-1500	31.00	6.00	130.00	Open	1.84	1063.91	1063.91	0.00	0.00
3350	P-1501	31.00	6.00	130.00	Open	-1.17	981.47	981.47	0.00	0.00
3353	P-1502	31.00	6.00	130.00	Open	0.08	1062.86	1062.86	0.00	0.00
3356	P-1503	34.00	6.00	130.00	Open	-2.66	1059.73	1059.73	0.00	0.00
3358	P-1504	33.00	6.00	130.00	Open	-3.85	1057.76	1057.76	0.00	0.00
3361	P-1505	33.00	6.00	130.00	Open	1.15	1218.03	1218.03	0.00	0.00
3364	P-1506	34.00	6.00	130.00	Open	0.63	1060.05	1060.05	0.00	0.00
3365	P-1507	34.00	6.00	130.00	Open	1.44	1063.87	1063.87	0.00	0.00
3366	P-1508	34.00	6.00	130.00	Open	0.43	1058.69	1058.69	0.00	0.00
3368	P-1509	34.00	6.00	130.00	Open	2.04	1058.81	1058.81	0.00	0.00
3370	P-1510	35.00	6.00	130.00	Open	8.61	1064.62	1064.62	0.00	0.00
3373	P-1511	35.00	6.00	130.00	Open	0.94	1218.03	1218.03	0.00	0.00
3375	P-1512	37.00	6.00	130.00	Open	0.55	1218.03	1218.03	0.00	0.00
3377	P-1513	39.00	6.00	130.00	Open	0.38	1062.86	1062.86	0.00	0.00
3379	P-1514	37.00	6.00	130.00	Open	1.23	1059.26	1059.26	0.00	0.00
3381	P-1515	37.00	6.00	130.00	Open	0.68	1061.15	1061.15	0.00	0.00
3383	P-1516	38.00	6.00	130.00	Open	7.71	963.95	963.95	0.00	0.00
3384	P-1517	38.00	6.00	130.00	Open	0.48	1060.97	1060.97	0.00	0.00
3386	P-1518	38.00	6.00	130.00	Open	0.08	1058.06	1058.06	0.00	0.00
3388	P-1519	38.00	6.00	130.00	Open	0.20	1216.97	1216.97	0.00	0.00
3391	P-1520	39.00	6.00	130.00	Open	1.75	1057.45	1057.45	0.00	0.00
3394	P-1521	40.00	6.00	130.00	Open	8.38	1217.75	1217.75	0.00	0.00
3396	P-1522	40.00	6.00	130.00	Open	0.28	1058.78	1058.78	0.00	0.00
3398	P-1523	40.00	6.00	130.00	Open	-0.96	1064.62	1064.62	0.00	0.00
3400	P-1524	41.00	6.00	130.00	Open	1.23	1064.84	1064.84	0.00	0.00
3402	P-1525	42.00	6.00	130.00	Open	1.81	1061.62	1061.62	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3404	P-1526	45.00	6.00	130.00	Open	-8.67	993.37	993.37	0.00	0.00
3406	P-1527	45.00	6.00	130.00	Open	-0.63	1064.87	1064.87	0.00	0.00
3409	P-1528	45.00	6.00	130.00	Open	2.72	1061.94	1061.94	0.00	0.00
3411	P-1529	47.00	6.00	130.00	Open	0.68	1059.72	1059.72	0.00	0.00
3414	P-1530	47.00	6.00	130.00	Open	0.48	1064.85	1064.85	0.00	0.00
3417	P-1531	48.00	6.00	130.00	Open	16.41	1064.85	1064.85	0.00	0.00
3419	P-1532	48.00	6.00	130.00	Open	4.18	1218.03	1218.03	0.00	0.00
3420	P-1533	48.00	6.00	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
3423	P-1534	48.00	6.00	130.00	Open	-1.59	1064.87	1064.87	0.00	0.00
3425	P-1535	48.00	6.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
3428	P-1536	50.00	6.00	130.00	Open	0.89	1062.86	1062.86	0.00	0.00
3431	P-1537	57.00	6.00	130.00	Open	3.37	1058.62	1058.62	0.00	0.00
3433	P-1538	52.00	6.00	130.00	Open	1.64	1058.95	1058.95	0.00	0.00
3435	P-1539	52.00	6.00	130.00	Open	-1.03	981.47	981.47	0.00	0.00
3437	P-1540	52.00	6.00	130.00	Open	-6.57	1057.45	1057.45	0.00	0.00
3440	P-1541	53.00	6.00	130.00	Open	-2.84	1057.42	1057.42	0.00	0.00
3443	P-1542	53.00	6.00	130.00	Open	-12.15	1057.84	1057.84	0.00	0.00
3445	P-1543	54.00	6.00	130.00	Open	2.16	1057.45	1057.45	0.00	0.00
3446	P-1544	55.00	6.00	130.00	Open	1.44	1059.96	1059.96	0.00	0.00
3449	P-1545	55.00	6.00	130.00	Open	3.04	1057.68	1057.68	0.00	0.00
3452	P-1546	56.00	6.00	130.00	Open	3.20	1063.37	1063.37	0.00	0.00
3455	P-1547	56.00	6.00	130.00	Open	-0.08	1064.87	1064.87	0.00	0.00
3457	P-1548	57.00	6.00	130.00	Open	-2.72	1062.02	1062.02	0.00	0.00
3459	P-1549	59.00	6.00	130.00	Open	1.23	1060.81	1060.81	0.00	0.00
3462	P-1550	59.00	6.00	130.00	Open	-2.11	1064.07	1064.07	0.00	0.00
3463	P-1551	61.00	6.00	130.00	Open	0.23	1057.41	1057.41	0.00	0.00
3465	P-1552	61.00	6.00	130.00	Open	12.13	1064.81	1064.81	0.00	0.00
3468	P-1553	62.00	6.00	130.00	Open	19.04	1058.63	1058.62	0.00	0.00
3471	P-1554	64.00	6.00	130.00	Open	-13.24	1060.87	1060.87	0.00	0.00
3474	P-1555	64.00	6.00	130.00	Open	-0.28	1057.82	1057.82	0.00	0.00
3477	P-1556	65.00	6.00	130.00	Open	-0.63	1060.33	1060.33	0.00	0.00
3479	P-1557	65.00	6.00	130.00	Open	1.32	1218.03	1218.03	0.00	0.00
3481	P-1558	65.00	6.00	130.00	Open	6.27	1059.10	1059.10	0.00	0.00
3483	P-1559	66.00	6.00	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
3486	P-1560	66.00	6.00	130.00	Open	4.55	1059.10	1059.10	0.00	0.00
3488	P-1561	67.00	6.00	130.00	Open	0.48	1059.97	1059.97	0.00	0.00
3491	P-1562	72.00	6.00	130.00	Open	1.41	1218.03	1218.03	0.00	0.00
3493	P-1563	68.00	6.00	130.00	Open	-3.21	1057.47	1057.47	0.00	0.00
3496	P-1564	70.00	6.00	130.00	Open	4.63	981.47	981.47	0.00	0.00
3498	P-1565	70.00	6.00	130.00	Open	-0.08	1056.91	1056.91	0.00	0.00
3500	P-1566	70.00	6.00	130.00	Open	0.08	1061.61	1061.61	0.00	0.00
3503	P-1567	100.00	6.00	130.00	Open	0.68	1059.96	1059.96	0.00	0.00
3506	P-1568	71.00	6.00	130.00	Open	-22.65	1057.51	1057.51	0.00	0.00
3509	P-1569	71.00	6.00	130.00	Open	-7.68	981.48	981.48	0.00	0.00
3512	P-1570	71.00	6.00	130.00	Open	1.58	1218.03	1218.03	0.00	0.00
3513	P-1571	71.00	6.00	130.00	Open	-1.08	1218.03	1218.03	0.00	0.00
3516	P-1572	73.00	6.00	130.00	Open	2.84	1057.82	1057.82	0.00	0.00
3518	P-1573	73.00	6.00	130.00	Open	1.84	1062.35	1062.35	0.00	0.00
3519	P-1574	73.00	6.00	130.00	Open	2.04	1061.61	1061.61	0.00	0.00
3521	P-1575	74.00	6.00	130.00	Open	2.64	1059.23	1059.23	0.00	0.00
3523	P-1576	74.00	6.00	130.00	Open	-1.38	1057.76	1057.76	0.00	0.00
3526	P-1577	76.00	6.00	130.00	Open	0.48	1059.35	1059.35	0.00	0.00
3529	P-1578	76.00	6.00	130.00	Open	-2.79	1056.91	1056.91	0.00	0.00
3530	P-1579	77.00	6.00	130.00	Open	-8.03	1061.53	1061.53	0.00	0.00
3531	P-1580	77.00	6.00	130.00	Open	-2.24	1057.42	1057.42	0.00	0.00
3534	P-1581	79.00	6.00	130.00	Open	7.35	1064.80	1064.80	0.00	0.00
3536	P-1582	79.00	6.00	130.00	Open	2.90	1058.78	1058.78	0.00	0.00
3538	P-1583	80.00	6.00	130.00	Open	0.23	1058.71	1058.71	0.00	0.00
3540	P-1584	80.00	6.00	130.00	Open	1.23	1059.26	1059.26	0.00	0.00
3542	P-1585	82.00	6.00	130.00	Open	4.20	1063.30	1063.30	0.00	0.00
3545	P-1586	82.00	6.00	130.00	Open	6.26	963.94	963.94	0.00	0.00
3548	P-1587	83.00	6.00	130.00	Open	0.60	1217.94	1217.94	0.00	0.00
3549	P-1588	83.00	6.00	130.00	Open	-3.57	1059.10	1059.10	0.00	0.00
3550	P-1589	84.00	6.00	130.00	Open	6.96	981.48	981.48	0.00	0.00
3553	P-1590	89.00	6.00	130.00	Open	2.89	988.98	988.98	0.00	0.00
3556	P-1591	85.00	6.00	130.00	Open	-0.08	1058.09	1058.09	0.00	0.00
3559	P-1592	89.00	6.00	130.00	Open	0.48	1064.87	1064.87	0.00	0.00
3562	P-1593	89.00	6.00	130.00	Open	1.81	1218.03	1218.03	0.00	0.00
3564	P-1594	90.00	6.00	130.00	Open	1.03	1059.10	1059.10	0.00	0.00
3565	P-1595	92.00	6.00	130.00	Open	-2.84	1064.10	1064.10	0.00	0.00
3568	P-1596	93.00	6.00	130.00	Open	-7.68	1061.62	1061.62	0.00	0.00
3570	P-1597	95.00	6.00	130.00	Open	1.24	1218.03	1218.03	0.00	0.00
3572	P-1598	94.00	6.00	130.00	Open	-27.70	1057.09	1057.10	0.01	0.00
3575	P-1599	95.00	6.00	130.00	Open	-0.70	1061.62	1061.62	0.00	0.00
3578	P-1600	96.00	6.00	130.00	Open	1.11	1057.76	1057.76	0.00	0.00
3580	P-1601	96.00	6.00	130.00	Open	8.77	1064.62	1064.62	0.00	0.00
3582	P-1602	97.00	6.00	130.00	Open	8.26	1058.64	1058.64	0.00	0.00
3584	P-1603	106.00	6.00	130.00	Open	0.08	1061.32	1061.32	0.00	0.00
3586	P-1604	98.00	6.00	130.00	Open	0.08	1057.46	1057.46	0.00	0.00
3589	P-1605	139.00	6.00	130.00	Open	2.97	1218.03	1218.03	0.00	0.00
3592	P-1606	101.00	6.00	130.00	Open	0.88	1059.72	1059.72	0.00	0.00
3595	P-1607	104.00	6.00	130.00	Open	2.04	1057.83	1057.83	0.00	0.00
3598	P-1608	105.00	6.00	130.00	Open	0.88	1059.72	1059.72	0.00	0.00
3600	P-1609	109.00	6.00	130.00	Open	4.46	1059.26	1059.26	0.00	0.00
3602	P-1610	109.00	6.00	130.00	Open	1.56	1063.37	1063.37	0.00	0.00
3604	P-1611	132.00	6.00	130.00	Open	7.40	1064.63	1064.63	0.00	0.00
3605	P-1612	112.00	6.00	130.00	Open	2.16	1061.94	1061.94	0.00	0.00
3606	P-1613	120.00	6.00	130.00	Open	1.76	1063.37	1063.37	0.00	0.00
3608	P-1614	120.00	6.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
3610	P-1615	122.00	6.00	130.00	Closed	0.00	1064.31	1064.83	0.00	0.00
3612	P-1616	123.00	6.00	130.00	Open	-3.70	1064.87	1064.87	0.00	0.00
3614	P-1617	123.00	6.00	130.00	Open	-10.65	1056.98	1056.98	0.00	0.00
3617	P-1618	123.00	6.00	130.00	Open	0.28	1059.73	1059.73	0.00	0.00
3619	P-1619	149.00	6.00	130.00	Open	10.50	1058.69	1058.68	0.00	0.00
3620	P-1620	135.00	6.00	130.00	Open	5.46	1218.03	1218.03	0.00	0.00
3622	P-1621	127.00	6.00	130.00	Open	0.52	1322.91	1322.91	0.00	0.00
3624	P-1622	127.00	6.00	130.00	Open	0.88	1064.62	1064.62	0.00	0.00
3627	P-1623	129.00	6.00	130.00	Open	3.18	1064.62	1064.62	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3629	P-1624	134.00	6.00	130.00	Open	-23.62	1057.06	1057.07	0.01	0.00
3632	P-1625	134.00	6.00	130.00	Open	3.44	1061.72	1061.72	0.00	0.00
3635	P-1626	139.00	6.00	130.00	Open	-10.32	1059.10	1059.11	0.00	0.00
3636	P-1627	136.00	6.00	130.00	Open	-12.31	1217.78	1217.78	0.00	0.00
3638	P-1628	145.00	6.00	130.00	Open	-3.33	1058.68	1058.68	0.00	0.00
3640	P-1629	147.00	6.00	130.00	Open	5.36	1061.60	1061.60	0.00	0.00
3642	P-1630	158.00	6.00	130.00	Open	-0.88	1057.42	1057.42	0.00	0.00
3645	P-1631	149.00	6.00	130.00	Open	8.74	1064.83	1064.83	0.00	0.00
3648	P-1632	151.00	6.00	130.00	Open	-0.28	994.76	994.76	0.00	0.00
3650	P-1633	152.00	6.00	130.00	Open	3.60	1057.42	1057.42	0.00	0.00
3653	P-1634	158.00	6.00	130.00	Open	0.48	1063.38	1063.38	0.00	0.00
3656	P-1635	160.00	6.00	130.00	Open	1.56	1064.79	1064.79	0.00	0.00
3657	P-1636	162.00	6.00	130.00	Open	5.74	1064.83	1064.83	0.00	0.00
3659	P-1637	165.00	6.00	130.00	Open	-9.32	993.37	993.37	0.00	0.00
3660	P-1638	165.00	6.00	130.00	Open	5.99	981.47	981.47	0.00	0.00
3661	P-1639	168.00	6.00	130.00	Open	0.28	1058.78	1058.78	0.00	0.00
3663	P-1640	168.00	6.00	130.00	Open	2.19	1061.61	1061.61	0.00	0.00
3665	P-1641	169.00	6.00	130.00	Open	2.27	1064.79	1064.79	0.00	0.00
3668	P-1642	172.00	6.00	130.00	Open	2.50	988.98	988.98	0.00	0.00
3669	P-1643	172.00	6.00	130.00	Open	-2.11	1063.25	1063.25	0.00	0.00
3672	P-1644	178.00	6.00	130.00	Open	-0.88	1057.41	1057.41	0.00	0.00
3675	P-1645	179.00	6.00	130.00	Open	1.08	1057.42	1057.42	0.00	0.00
3678	P-1646	180.00	6.00	130.00	Open	2.44	1060.80	1060.80	0.00	0.00
3681	P-1647	196.00	6.00	130.00	Open	-1.56	1057.07	1057.07	0.00	0.00
3682	P-1648	186.00	6.00	130.00	Open	-2.87	1062.02	1062.02	0.00	0.00
3684	P-1649	210.00	6.00	130.00	Open	-26.10	1218.12	1218.14	0.02	0.00
3687	P-1650	188.00	6.00	130.00	Open	-28.85	1062.79	1062.81	0.02	0.00
3690	P-1651	189.00	6.00	130.00	Open	-2.55	1057.82	1057.82	0.00	0.00
3693	P-1652	193.00	6.00	130.00	Open	0.22	1218.15	1218.15	0.00	0.00
3696	P-1653	195.00	6.00	130.00	Open	0.08	1060.20	1060.20	0.00	0.00
3698	P-1654	196.00	6.00	130.00	Open	-1.79	1064.83	1064.83	0.00	0.00
3700	P-1655	239.00	6.00	130.00	Open	0.48	1061.83	1061.83	0.00	0.00
3703	P-1656	197.00	6.00	130.00	Open	3.90	1059.26	1059.26	0.00	0.00
3704	P-1657	197.00	6.00	130.00	Open	2.64	981.47	981.47	0.00	0.00
3706	P-1658	199.00	6.00	130.00	Open	5.00	1057.81	1057.81	0.00	0.00
3709	P-1659	209.00	6.00	130.00	Open	-0.43	1057.44	1057.44	0.00	0.00
3711	P-1660	200.00	6.00	130.00	Open	1.84	1060.80	1060.80	0.00	0.00
3713	P-1661	203.00	6.00	130.00	Open	-1.71	1064.62	1064.62	0.00	0.00
3715	P-1662	210.00	6.00	130.00	Open	-0.88	1060.82	1060.82	0.00	0.00
3718	P-1663	204.00	6.00	130.00	Open	-1.36	1060.80	1060.80	0.00	0.00
3719	P-1664	205.00	6.00	130.00	Open	0.88	1062.60	1062.60	0.00	0.00
3722	P-1665	211.00	6.00	130.00	Open	-3.10	1057.41	1057.41	0.00	0.00
3724	P-1666	213.00	6.00	130.00	Open	10.90	1058.62	1058.62	0.00	0.00
3726	P-1667	234.00	6.00	130.00	Open	-1.28	1058.62	1058.62	0.00	0.00
3729	P-1668	220.00	6.00	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
3732	P-1669	217.00	6.00	130.00	Open	-1.08	981.47	981.47	0.00	0.00
3734	P-1670	228.00	6.00	130.00	Open	6.07	1062.60	1062.60	0.00	0.00
3736	P-1671	224.00	6.00	130.00	Open	-2.04	1060.91	1060.91	0.00	0.00
3739	P-1672	226.00	6.00	130.00	Open	1.34	1057.44	1057.44	0.00	0.00
3741	P-1673	227.00	6.00	130.00	Open	-2.24	1060.91	1060.91	0.00	0.00
3743	P-1674	291.00	6.00	130.00	Open	3.60	1064.87	1064.87	0.00	0.00
3745	P-1675	228.00	6.00	130.00	Open	1.56	1064.83	1064.83	0.00	0.00
3748	P-1676	231.00	6.00	130.00	Open	0.83	963.95	963.95	0.00	0.00
3749	P-1677	231.00	6.00	130.00	Open	0.23	1058.71	1058.71	0.00	0.00
3750	P-1678	233.00	6.00	130.00	Open	-0.48	1060.91	1060.91	0.00	0.00
3752	P-1679	235.00	6.00	130.00	Open	2.84	1057.42	1057.42	0.00	0.00
3755	P-1680	244.00	6.00	130.00	Open	6.29	1218.03	1218.03	0.00	0.00
3756	P-1681	238.00	6.00	130.00	Open	-1.56	1063.25	1063.25	0.00	0.00
3757	P-1682	238.00	6.00	130.00	Open	0.28	1061.72	1061.72	0.00	0.00
3759	P-1683	245.00	6.00	130.00	Open	5.67	1218.03	1218.03	0.00	0.00
3760	P-1684	239.00	6.00	130.00	Open	2.31	1057.45	1057.45	0.00	0.00
3762	P-1685	258.00	6.00	130.00	Open	-0.76	1057.09	1057.09	0.00	0.00
3763	P-1686	261.00	6.00	130.00	Open	-0.28	1060.04	1060.04	0.00	0.00
3766	P-1687	254.00	6.00	130.00	Open	14.67	1061.63	1061.62	0.01	0.00
3768	P-1688	261.00	6.00	130.00	Open	3.47	1059.73	1059.73	0.00	0.00
3771	P-1689	250.00	6.00	130.00	Open	0.12	1057.02	1057.02	0.00	0.00
3773	P-1690	250.00	6.00	130.00	Open	-0.43	1061.62	1061.62	0.00	0.00
3775	P-1691	280.00	6.00	130.00	Open	0.00	1064.83	1064.83	0.00	0.00
3776	P-1692	257.00	6.00	130.00	Open	1.08	1064.62	1064.62	0.00	0.00
3778	P-1693	298.00	6.00	130.00	Open	4.50	963.94	963.93	0.00	0.00
3780	P-1694	258.00	6.00	130.00	Open	0.83	1061.83	1061.83	0.00	0.00
3781	P-1695	265.00	6.00	130.00	Open	1.56	1063.25	1063.25	0.00	0.00
3783	P-1696	265.00	6.00	130.00	Open	0.68	1064.87	1064.87	0.00	0.00
3785	P-1697	265.00	6.00	130.00	Open	0.08	1057.43	1057.43	0.00	0.00
3788	P-1698	267.00	6.00	130.00	Open	2.84	1059.04	1059.04	0.00	0.00
3789	P-1699	268.00	6.00	130.00	Open	0.68	1064.62	1064.62	0.00	0.00
3792	P-1700	293.00	6.00	130.00	Open	1.56	1061.62	1061.62	0.00	0.00
3794	P-1701	276.00	6.00	130.00	Open	-2.16	1057.83	1057.83	0.00	0.00
3796	P-1702	286.00	6.00	130.00	Open	-1.04	1063.57	1063.57	0.00	0.00
3799	P-1703	278.00	6.00	130.00	Open	0.18	988.98	988.98	0.00	0.00
3800	P-1704	275.00	6.00	130.00	Open	0.96	1057.76	1057.76	0.00	0.00
3801	P-1705	276.00	6.00	130.00	Open	-1.08	1064.62	1064.62	0.00	0.00
3803	P-1706	276.00	6.00	130.00	Open	-1.08	1057.02	1057.02	0.00	0.00
3805	P-1707	338.00	6.00	130.00	Open	-1.08	1060.80	1060.80	0.00	0.00
3808	P-1708	290.00	6.00	130.00	Open	0.63	1057.44	1057.44	0.00	0.00
3809	P-1709	302.00	6.00	130.00	Open	5.20	1059.05	1059.04	0.00	0.00
3811	P-1710	314.00	6.00	130.00	Open	-4.96	1056.91	1056.92	0.00	0.00
3813	P-1711	281.00	6.00	130.00	Open	2.16	1056.94	1056.94	0.00	0.00
3815	P-1712	284.00	6.00	130.00	Open	7.04	1064.63	1064.63	0.00	0.00
3816	P-1713	290.00	6.00	130.00	Open	4.52	1056.94	1056.94	0.00	0.00
3818	P-1714	291.00	6.00	130.00	Open	0.80	1322.91	1322.91	0.00	0.00
3820	P-1715	285.00	6.00	130.00	Open	6.31	1061.60	1061.60	0.00	0.00
3821	P-1716	286.00	6.00	130.00	Open	5.00	1063.71	1063.71	0.00	0.00
3823	P-1717	286.00	6.00	130.00	Open	-1.28	1057.52	1057.52	0.00	0.00
3826	P-1718	286.00	6.00	130.00	Open	-2.32	981.47	981.47	0.00	0.00
3827	P-1719	290.00	6.00	130.00	Open	4.25	963.94	963.94	0.00	0.00
3830	P-1720	288.00	6.00	130.00	Open	0.88	1059.95	1059.95	0.00	0.00
3832	P-1721	288.00	6.00	130.00	Open	0.28	1059.16	1059.16	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3835	P-1722	301.00	6.00	130.00	Open	1.19	1064.62	1064.62	0.00	0.00
3836	P-1723	291.00	6.00	130.00	Open	-26.46	1057.07	1057.09	0.03	0.00
3837	P-1724	291.00	6.00	130.00	Open	5.59	963.95	963.95	0.00	0.00
3839	P-1725	293.00	6.00	130.00	Open	-9.37	1060.84	1060.85	0.00	0.00
3842	P-1726	293.00	6.00	130.00	Open	-0.43	1057.59	1057.59	0.00	0.00
3844	P-1727	294.00	6.00	130.00	Open	-1.56	1058.37	1058.37	0.00	0.00
3847	P-1728	298.00	6.00	130.00	Open	0.41	1058.75	1058.75	0.00	0.00
3849	P-1729	301.00	6.00	130.00	Open	11.36	1058.70	1058.69	0.01	0.00
3851	P-1730	299.00	6.00	130.00	Open	0.63	1218.15	1218.15	0.00	0.00
3852	P-1731	305.00	6.00	130.00	Open	0.68	1060.06	1060.05	0.00	0.00
3854	P-1732	302.00	6.00	130.00	Open	20.26	1057.44	1057.43	0.02	0.00
3857	P-1733	306.00	6.00	130.00	Open	4.37	993.43	993.43	0.00	0.00
3858	P-1734	304.00	6.00	130.00	Open	0.43	1064.62	1064.62	0.00	0.00
3859	P-1735	304.00	6.00	130.00	Open	-8.58	1057.42	1057.42	0.00	0.00
3861	P-1736	305.00	6.00	130.00	Open	-6.40	993.37	993.37	0.00	0.00
3862	P-1737	402.00	6.00	130.00	Open	0.48	1064.74	1064.74	0.00	0.00
3865	P-1738	326.00	6.00	130.00	Open	2.72	1057.81	1057.81	0.00	0.00
3866	P-1739	306.00	6.00	130.00	Open	11.01	1058.69	1058.69	0.01	0.00
3867	P-1740	307.00	6.00	130.00	Open	8.26	963.96	963.95	0.00	0.00
3869	P-1741	336.00	6.00	130.00	Open	5.36	1061.62	1061.62	0.00	0.00
3872	P-1742	319.00	6.00	130.00	Open	-1.36	1058.36	1058.36	0.00	0.00
3874	P-1743	316.00	6.00	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
3877	P-1744	312.00	6.00	130.00	Open	11.07	1057.44	1057.43	0.01	0.00
3879	P-1745	314.00	6.00	130.00	Open	-1.68	1061.72	1061.72	0.00	0.00
3881	P-1746	314.00	6.00	130.00	Open	-3.44	1056.99	1056.99	0.00	0.00
3883	P-1747	326.00	6.00	130.00	Open	-1.08	1058.36	1058.36	0.00	0.00
3886	P-1748	316.00	6.00	130.00	Open	8.40	1057.82	1057.81	0.00	0.00
3887	P-1749	317.00	6.00	130.00	Open	-0.88	1057.82	1057.82	0.00	0.00
3889	P-1750	325.00	6.00	130.00	Open	0.48	1064.87	1064.87	0.00	0.00
3891	P-1751	322.00	6.00	130.00	Open	-6.93	1062.02	1062.02	0.00	0.00
3893	P-1752	320.00	6.00	130.00	Open	0.68	1060.06	1060.05	0.00	0.00
3895	P-1753	321.00	6.00	130.00	Open	2.44	1064.62	1064.62	0.00	0.00
3897	P-1754	330.00	6.00	130.00	Open	-1.08	1057.83	1057.83	0.00	0.00
3899	P-1755	336.00	6.00	130.00	Open	1.44	1063.75	1063.75	0.00	0.00
3900	P-1756	405.00	6.00	130.00	Open	-4.00	981.47	981.47	0.00	0.00
3902	P-1757	350.00	6.00	130.00	Open	12.61	993.45	993.44	0.01	0.00
3904	P-1758	336.00	6.00	130.00	Open	1.84	1063.38	1063.38	0.00	0.00
3906	P-1759	335.00	6.00	130.00	Open	-1.28	1060.91	1060.91	0.00	0.00
3908	P-1760	337.00	6.00	130.00	Open	9.29	1064.84	1064.83	0.00	0.00
3910	P-1761	344.00	6.00	130.00	Open	6.22	1062.02	1062.02	0.00	0.00
3912	P-1762	338.00	6.00	130.00	Open	1.95	1218.15	1218.15	0.00	0.00
3914	P-1763	340.00	6.00	130.00	Open	4.00	1059.95	1059.95	0.00	0.00
3916	P-1764	343.00	6.00	130.00	Open	-2.24	1060.80	1060.80	0.00	0.00
3917	P-1765	343.00	6.00	130.00	Open	6.36	1058.82	1058.82	0.00	0.00
3920	P-1766	351.00	6.00	130.00	Open	6.15	963.95	963.95	0.00	0.00
3921	P-1767	345.00	6.00	130.00	Open	0.88	1057.83	1057.83	0.00	0.00
3923	P-1768	342.00	6.00	130.00	Open	-4.86	1057.41	1057.42	0.00	0.00
3925	P-1769	343.00	6.00	130.00	Open	-0.88	1057.45	1057.45	0.00	0.00
3928	P-1770	345.00	6.00	130.00	Open	1.28	1057.42	1057.41	0.00	0.00
3931	P-1771	351.00	6.00	130.00	Open	-3.60	994.76	994.76	0.00	0.00
3933	P-1772	375.00	6.00	130.00	Open	1.23	1064.83	1064.83	0.00	0.00
3934	P-1773	384.00	6.00	130.00	Open	3.04	1063.58	1063.57	0.00	0.00
3936	P-1774	358.00	6.00	130.00	Open	-4.08	981.47	981.47	0.00	0.00
3937	P-1775	443.00	6.00	130.00	Open	2.39	1062.60	1062.60	0.00	0.00
3938	P-1776	397.00	6.00	130.00	Open	1.08	1059.26	1059.26	0.00	0.00
3940	P-1777	358.00	6.00	130.00	Open	-1.64	1061.29	1061.29	0.00	0.00
3942	P-1778	358.00	6.00	130.00	Open	4.20	1064.63	1064.62	0.00	0.00
3944	P-1779	361.00	6.00	130.00	Open	-6.05	1056.91	1056.92	0.00	0.00
3946	P-1780	361.00	6.00	130.00	Open	6.16	1063.71	1063.71	0.00	0.00
3948	P-1781	361.00	6.00	130.00	Open	4.25	994.76	994.76	0.00	0.00
3950	P-1782	368.00	6.00	130.00	Open	4.28	981.47	981.47	0.00	0.00
3951	P-1783	364.00	6.00	130.00	Open	-1.64	1059.42	1059.42	0.00	0.00
3953	P-1784	370.00	6.00	130.00	Open	4.03	1218.03	1218.03	0.00	0.00
3954	P-1785	378.00	6.00	130.00	Open	0.68	1064.10	1064.10	0.00	0.00
3956	P-1786	379.00	6.00	130.00	Open	5.70	1059.73	1059.73	0.00	0.00
3958	P-1787	457.00	6.00	130.00	Open	0.88	1063.57	1063.57	0.00	0.00
3960	P-1788	370.00	6.00	130.00	Open	-1.28	1057.42	1057.42	0.00	0.00
3962	P-1789	478.00	6.00	130.00	Open	1.84	1064.87	1064.87	0.00	0.00
3963	P-1790	385.00	6.00	130.00	Open	0.34	1061.61	1061.61	0.00	0.00
3965	P-1791	374.00	6.00	130.00	Open	-3.63	1058.24	1058.25	0.00	0.00
3967	P-1792	380.00	6.00	130.00	Open	-7.36	981.47	981.48	0.00	0.00
3969	P-1793	382.00	6.00	130.00	Open	26.75	1057.61	1057.58	0.03	0.00
3972	P-1794	379.00	6.00	130.00	Open	4.93	1059.73	1059.72	0.00	0.00
3975	P-1795	410.00	6.00	130.00	Open	2.39	1059.26	1059.26	0.00	0.00
3976	P-1796	690.00	6.00	130.00	Open	-0.28	1063.57	1063.57	0.00	0.00
3977	P-1797	397.00	6.00	130.00	Open	-0.08	1064.83	1064.83	0.00	0.00
3978	P-1798	416.00	6.00	130.00	Open	3.24	1064.90	1064.90	0.00	0.00
3979	P-1799	389.00	6.00	130.00	Open	1.08	1057.41	1057.41	0.00	0.00
3982	P-1800	400.00	6.00	130.00	Open	1.35	988.98	988.98	0.00	0.00
3983	P-1801	385.00	6.00	130.00	Open	-2.84	1057.45	1057.45	0.00	0.00
3985	P-1802	389.00	6.00	130.00	Open	-6.72	981.47	981.48	0.00	0.00
3986	P-1803	387.00	6.00	130.00	Open	-1.91	1064.62	1064.62	0.00	0.00
3987	P-1804	390.00	6.00	130.00	Open	1.64	1057.76	1057.76	0.00	0.00
3989	P-1805	393.00	6.00	130.00	Open	-3.60	1062.02	1062.02	0.00	0.00
3991	P-1806	400.00	6.00	130.00	Open	2.32	1059.00	1059.00	0.00	0.00
3993	P-1807	392.00	6.00	130.00	Open	2.11	1060.13	1060.13	0.00	0.00
3995	P-1808	393.00	6.00	130.00	Open	6.29	1061.72	1061.72	0.00	0.00
3997	P-1809	397.00	6.00	130.00	Open	6.86	963.94	963.94	0.00	0.00
3999	P-1810	395.00	6.00	130.00	Open	-1.23	1057.41	1057.41	0.00	0.00
4001	P-1811	399.00	6.00	130.00	Open	-10.73	1060.85	1060.86	0.01	0.00
4003	P-1812	395.00	6.00	130.00	Open	-5.61	1057.45	1057.45	0.00	0.00
4004	P-1813	400.00	6.00	130.00	Open	-8.23	1057.82	1057.82	0.00	0.00
4006	P-1814	397.00	6.00	130.00	Open	0.88	1058.67	1058.67	0.00	0.00
4009	P-1815	401.00	6.00	130.00	Open	2.24	1058.27	1058.27	0.00	0.00
4011	P-1816	405.00	6.00	130.00	Open	2.11	1059.00	1059.00	0.00	0.00
4012	P-1817	403.00	6.00	130.00	Open	3.28	1064.62	1064.62	0.00	0.00
4013	P-1818	437.00	6.00	130.00	Open	-1.64	1057.81	1057.81	0.00	0.00
4015	P-1819	406.00	6.00	130.00	Open	7.75	981.48	981.47	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4017	P-1820	407.00	6.00	130.00	Open	-0.79	981.47	981.47	0.00	0.00
4018	P-1821	408.00	6.00	130.00	Open	6.29	1064.63	1064.62	0.00	0.00
4020	P-1822	411.00	6.00	130.00	Open	6.72	1061.62	1061.62	0.00	0.00
4021	P-1823	416.00	6.00	130.00	Open	1.46	1057.83	1057.83	0.00	0.00
4024	P-1824	446.00	6.00	130.00	Open	6.16	1057.83	1057.83	0.00	0.00
4026	P-1825	414.00	6.00	130.00	Open	1.08	1057.68	1057.68	0.00	0.00
4028	P-1826	419.00	6.00	130.00	Open	2.67	1062.02	1062.02	0.00	0.00
4029	P-1827	424.00	6.00	130.00	Open	-11.68	993.38	993.39	0.01	0.00
4030	P-1828	421.00	6.00	130.00	Open	9.39	1059.97	1059.97	0.01	0.00
4032	P-1829	426.00	6.00	130.00	Open	-2.92	1060.81	1060.81	0.00	0.00
4034	P-1830	441.00	6.00	130.00	Open	4.45	1058.62	1058.62	0.00	0.00
4035	P-1831	439.00	6.00	130.00	Open	4.49	1058.64	1058.64	0.00	0.00
4036	P-1832	436.00	6.00	130.00	Open	7.08	1058.75	1058.75	0.00	0.00
4039	P-1833	429.00	6.00	130.00	Open	-8.00	1057.46	1057.46	0.00	0.00
4041	P-1834	443.00	6.00	130.00	Open	-4.20	1060.91	1060.91	0.00	0.00
4044	P-1835	434.00	6.00	130.00	Open	2.44	993.48	993.48	0.00	0.00
4047	P-1836	503.00	6.00	130.00	Open	2.16	1061.61	1061.61	0.00	0.00
4049	P-1837	437.00	6.00	130.00	Open	7.58	1062.02	1062.02	0.00	0.00
4050	P-1838	453.00	6.00	130.00	Open	-4.96	1060.91	1060.91	0.00	0.00
4051	P-1839	449.00	6.00	130.00	Open	1.44	1064.19	1064.19	0.00	0.00
4052	P-1840	444.00	6.00	130.00	Open	1.71	1064.79	1064.79	0.00	0.00
4053	P-1841	439.00	6.00	130.00	Open	-1.03	1057.45	1057.45	0.00	0.00
4055	P-1842	454.00	6.00	130.00	Open	0.72	1216.97	1216.97	0.00	0.00
4058	P-1843	452.00	6.00	130.00	Open	2.04	1062.60	1062.60	0.00	0.00
4059	P-1844	442.00	6.00	130.00	Open	10.04	1061.61	1061.60	0.01	0.00
4060	P-1845	459.00	6.00	130.00	Open	1.28	1057.42	1057.42	0.00	0.00
4063	P-1846	445.00	6.00	130.00	Open	-6.24	1058.37	1058.37	0.00	0.00
4066	P-1847	464.00	6.00	130.00	Open	5.51	1059.10	1059.10	0.00	0.00
4067	P-1848	502.00	6.00	130.00	Open	-0.83	1059.66	1059.66	0.00	0.00
4070	P-1849	527.00	6.00	130.00	Open	-2.33	1057.76	1057.76	0.00	0.00
4072	P-1850	451.00	6.00	130.00	Open	1.39	1058.78	1058.78	0.00	0.00
4074	P-1851	461.00	6.00	130.00	Open	9.76	1057.82	1057.82	0.01	0.00
4075	P-1852	456.00	6.00	130.00	Open	0.57	1218.15	1218.15	0.00	0.00
4076	P-1853	457.00	6.00	130.00	Open	2.44	1064.10	1064.10	0.00	0.00
4079	P-1854	524.00	6.00	130.00	Open	-0.28	981.48	981.48	0.00	0.00
4081	P-1855	480.00	6.00	130.00	Open	-0.88	1060.91	1060.91	0.00	0.00
4084	P-1856	471.00	6.00	130.00	Open	-4.38	1061.62	1061.62	0.00	0.00
4086	P-1857	497.00	6.00	130.00	Open	-2.44	1063.08	1063.08	0.00	0.00
4088	P-1858	464.00	6.00	130.00	Open	10.16	1057.47	1057.47	0.01	0.00
4090	P-1859	462.00	6.00	130.00	Open	13.31	1061.62	1061.61	0.01	0.00
4091	P-1860	493.00	6.00	130.00	Open	8.34	1058.62	1058.62	0.01	0.00
4092	P-1861	626.00	6.00	130.00	Open	-0.68	1062.63	1062.63	0.00	0.00
4094	P-1862	473.00	6.00	130.00	Open	1.44	1063.30	1063.30	0.00	0.00
4096	P-1863	561.00	6.00	130.00	Open	-0.27	1064.62	1064.62	0.00	0.00
4097	P-1864	502.00	6.00	130.00	Open	2.50	1216.97	1216.97	0.00	0.00
4099	P-1865	478.00	6.00	130.00	Open	1.28	1060.80	1060.80	0.00	0.00
4101	P-1866	562.00	6.00	130.00	Open	-2.52	1058.36	1058.37	0.00	0.00
4102	P-1867	484.00	6.00	130.00	Open	2.50	1057.45	1057.44	0.00	0.00
4103	P-1868	483.00	6.00	130.00	Open	-0.28	1059.66	1059.66	0.00	0.00
4105	P-1869	613.00	6.00	130.00	Open	2.72	1061.60	1061.60	0.00	0.00
4106	P-1870	495.00	6.00	130.00	Open	-16.52	1057.00	1057.02	0.02	0.00
4108	P-1871	486.00	6.00	130.00	Open	4.20	1057.82	1057.82	0.00	0.00
4109	P-1872	531.00	6.00	130.00	Open	0.68	1060.81	1060.81	0.00	0.00
4111	P-1873	487.00	6.00	130.00	Open	-1.48	1064.10	1064.10	0.00	0.00
4113	P-1874	507.00	6.00	130.00	Open	1.28	1059.23	1059.23	0.00	0.00
4115	P-1875	488.00	6.00	130.00	Open	-0.62	1061.61	1061.61	0.00	0.00
4117	P-1876	492.00	6.00	130.00	Open	0.83	1057.81	1057.81	0.00	0.00
4119	P-1877	493.00	6.00	130.00	Open	10.72	1057.43	1057.42	0.01	0.00
4121	P-1878	514.00	6.00	130.00	Open	3.20	1059.16	1059.15	0.00	0.00
4122	P-1879	502.00	6.00	130.00	Open	2.99	1059.10	1059.10	0.00	0.00
4123	P-1880	496.00	6.00	130.00	Open	-3.44	1061.66	1061.66	0.00	0.00
4125	P-1881	507.00	6.00	130.00	Open	2.04	1064.74	1064.74	0.00	0.00
4126	P-1882	507.00	6.00	130.00	Open	6.21	1060.01	1060.01	0.00	0.00
4129	P-1883	505.00	6.00	130.00	Open	-1.79	1058.09	1058.09	0.00	0.00
4131	P-1884	516.00	6.00	130.00	Open	-14.20	1064.10	1064.12	0.01	0.00
4134	P-1885	516.00	6.00	130.00	Open	-1.94	1057.41	1057.41	0.00	0.00
4135	P-1886	510.00	6.00	130.00	Open	3.92	1059.73	1059.72	0.00	0.00
4137	P-1887	518.00	6.00	130.00	Open	1.19	1064.62	1064.62	0.00	0.00
4140	P-1888	515.00	6.00	130.00	Open	-2.67	1064.62	1064.62	0.00	0.00
4141	P-1889	514.00	6.00	130.00	Open	-14.92	1057.84	1057.85	0.02	0.00
4143	P-1890	542.00	6.00	130.00	Open	-5.09	981.47	981.47	0.00	0.00
4144	P-1891	517.00	6.00	130.00	Open	2.04	1062.86	1062.86	0.00	0.00
4145	P-1892	525.00	6.00	130.00	Open	3.20	1063.38	1063.38	0.00	0.00
4147	P-1893	520.00	6.00	130.00	Open	-1.08	1063.08	1063.08	0.00	0.00
4149	P-1894	562.00	6.00	130.00	Open	2.59	1062.60	1062.60	0.00	0.00
4150	P-1895	545.00	6.00	130.00	Open	-11.60	1056.98	1056.99	0.01	0.00
4151	P-1896	523.00	6.00	130.00	Open	0.88	1057.42	1057.42	0.00	0.00
4153	P-1897	524.00	6.00	130.00	Open	0.48	1059.96	1059.96	0.00	0.00
4155	P-1898	935.00	6.00	130.00	Open	1.83	1322.92	1322.92	0.00	0.00
4158	P-1899	558.00	6.00	130.00	Open	-164.87	1060.87	1062.34	1.47	0.00
4160	P-1900	616.00	6.00	130.00	Open	2.79	1064.62	1064.62	0.00	0.00
4162	P-1901	541.00	6.00	130.00	Open	-4.52	1060.86	1060.86	0.00	0.00
4164	P-1902	605.00	6.00	130.00	Open	-12.49	1060.86	1060.87	0.01	0.00
4165	P-1903	715.00	6.00	130.00	Open	-2.81	1062.02	1062.02	0.00	0.00
4167	P-1904	541.00	6.00	130.00	Open	-1.48	994.76	994.76	0.00	0.00
4169	P-1905	545.00	6.00	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
4171	P-1906	558.00	6.00	130.00	Open	2.44	1063.37	1063.37	0.00	0.00
4172	P-1907	541.00	6.00	130.00	Open	-6.62	1057.42	1057.42	0.00	0.00
4173	P-1908	560.00	6.00	130.00	Open	1.39	1064.62	1064.62	0.00	0.00
4175	P-1909	589.00	6.00	130.00	Open	-2.44	1058.36	1058.37	0.00	0.00
4176	P-1910	553.00	6.00	130.00	Open	1.91	1059.94	1059.94	0.00	0.00
4177	P-1911	564.00	6.00	130.00	Open	1.68	1064.10	1064.10	0.00	0.00
4179	P-1912	552.00	6.00	130.00	Open	3.60	1057.82	1057.81	0.00	0.00
4181	P-1913	554.00	6.00	130.00	Open	4.32	1064.62	1064.62	0.00	0.00
4182	P-1914	548.00	6.00	130.00	Open	-2.29	1057.42	1057.42	0.00	0.00
4185	P-1915	596.00	6.00	130.00	Open	-1.64	1216.97	1216.97	0.00	0.00
4187	P-1916	557.00	6.00	130.00	Open	-1.48	1056.99	1056.99	0.00	0.00
4189	P-1917	567.00	6.00	130.00	Open	17.29	1061.88	1061.86	0.02	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4191	P-1918	603.00	6.00	130.00	Open	-27.49	1062.73	1062.79	0.06	0.00
4192	P-1919	563.00	6.00	130.00	Open	-1.88	1057.42	1057.42	0.00	0.00
4194	P-1920	557.00	6.00	130.00	Open	8.61	1064.81	1064.80	0.01	0.00
4195	P-1921	636.00	6.00	130.00	Open	-1.79	1057.82	1057.82	0.00	0.00
4197	P-1922	571.00	6.00	130.00	Open	5.71	1058.67	1058.67	0.00	0.00
4198	P-1923	561.00	6.00	130.00	Open	1.78	993.48	993.48	0.00	0.00
4199	P-1924	580.00	6.00	130.00	Open	3.55	1059.26	1059.26	0.00	0.00
4202	P-1925	601.00	6.00	130.00	Open	-21.51	1056.94	1056.98	0.04	0.00
4203	P-1926	574.00	6.00	130.00	Open	-2.95	1064.83	1064.83	0.00	0.00
4204	P-1927	596.00	6.00	130.00	Open	-22.66	1057.02	1057.06	0.04	0.00
4205	P-1928	587.00	6.00	130.00	Open	-2.89	1057.76	1057.76	0.00	0.00
4206	P-1929	591.00	6.00	130.00	Open	-19.42	1056.99	1057.02	0.03	0.00
4207	P-1930	574.00	6.00	130.00	Open	-19.43	1060.08	1060.11	0.03	0.00
4210	P-1931	576.00	6.00	130.00	Open	9.16	1057.42	1057.42	0.01	0.00
4211	P-1932	581.00	6.00	130.00	Open	-5.96	1060.80	1060.80	0.00	0.00
4213	P-1933	580.00	6.00	130.00	Open	18.32	1064.90	1064.88	0.03	0.00
4215	P-1934	630.00	6.00	130.00	Open	2.09	963.94	963.94	0.00	0.00
4216	P-1935	587.00	6.00	130.00	Open	1.56	1059.72	1059.72	0.00	0.00
4217	P-1936	598.00	6.00	130.00	Open	-163.11	1059.33	1060.87	1.54	0.00
4218	P-1937	785.00	6.00	130.00	Open	2.52	1059.72	1059.72	0.00	0.00
4220	P-1938	607.00	6.00	130.00	Open	22.02	1061.96	1061.93	0.04	0.00
4223	P-1939	613.00	6.00	130.00	Open	-2.26	1061.62	1061.62	0.00	0.00
4224	P-1940	592.00	6.00	130.00	Open	9.23	1059.97	1059.96	0.01	0.00
4225	P-1941	592.00	6.00	130.00	Open	6.80	1057.47	1057.46	0.00	0.00
4226	P-1942	596.00	6.00	130.00	Open	2.99	1063.58	1063.57	0.00	0.00
4228	P-1943	597.00	6.00	130.00	Open	-17.00	1057.45	1057.47	0.02	0.00
4229	P-1944	664.00	6.00	130.00	Open	0.78	1061.62	1061.62	0.00	0.00
4231	P-1945	614.00	6.00	130.00	Open	-2.24	1056.73	1056.73	0.00	0.00
4232	P-1946	676.00	6.00	130.00	Open	-29.46	1057.10	1057.18	0.07	0.00
4233	P-1947	610.00	6.00	130.00	Open	17.37	1064.88	1064.85	0.02	0.00
4234	P-1948	608.00	6.00	130.00	Open	-21.29	1057.47	1057.51	0.04	0.00
4235	P-1949	608.00	6.00	130.00	Open	1.28	1064.79	1064.79	0.00	0.00
4237	P-1950	620.00	6.00	130.00	Open	-0.89	1057.45	1057.45	0.00	0.00
4238	P-1951	662.00	6.00	130.00	Open	-2.38	1061.61	1061.62	0.00	0.00
4239	P-1952	613.00	6.00	130.00	Open	2.99	1063.87	1063.87	0.00	0.00
4240	P-1953	621.00	6.00	130.00	Open	-2.79	1060.33	1060.33	0.00	0.00
4241	P-1954	657.00	6.00	130.00	Open	-2.64	1060.91	1060.91	0.00	0.00
4242	P-1955	689.00	6.00	130.00	Open	-1.28	1060.84	1060.84	0.00	0.00
4245	P-1956	611.00	6.00	130.00	Open	1.64	1058.67	1058.67	0.00	0.00
4247	P-1957	623.00	6.00	130.00	Open	13.36	1057.84	1057.82	0.02	0.00
4248	P-1958	616.00	6.00	130.00	Open	2.72	1060.08	1060.08	0.00	0.00
4250	P-1959	707.00	6.00	130.00	Open	2.52	1061.62	1061.62	0.00	0.00
4251	P-1960	618.00	6.00	130.00	Open	4.40	1057.83	1057.83	0.00	0.00
4252	P-1961	624.00	6.00	130.00	Open	-1.44	1057.82	1057.82	0.00	0.00
4253	P-1962	616.00	6.00	130.00	Open	-10.50	993.37	993.38	0.01	0.00
4254	P-1963	647.00	6.00	130.00	Open	-1.48	1061.64	1061.64	0.00	0.00
4257	P-1964	620.00	6.00	130.00	Open	2.59	1059.26	1059.26	0.00	0.00
4258	P-1965	628.00	6.00	130.00	Open	13.29	1064.83	1064.81	0.02	0.00
4260	P-1966	659.00	6.00	130.00	Open	2.79	1063.91	1063.91	0.00	0.00
4262	P-1967	629.00	6.00	130.00	Open	-0.28	1059.42	1059.42	0.00	0.00
4264	P-1968	757.00	6.00	130.00	Open	-0.83	1058.12	1058.12	0.00	0.00
4265	P-1969	637.00	6.00	130.00	Open	2.44	1057.42	1057.42	0.00	0.00
4266	P-1970	639.00	6.00	130.00	Open	-6.84	1057.42	1057.42	0.00	0.00
4269	P-1971	658.00	6.00	130.00	Open	-30.81	1062.81	1062.89	0.08	0.00
4271	P-1972	684.00	6.00	130.00	Open	5.44	991.26	991.25	0.00	0.00
4272	P-1973	650.00	6.00	130.00	Open	-17.37	1064.12	1064.14	0.03	0.00
4273	P-1974	650.00	6.00	130.00	Open	17.24	991.30	991.28	0.03	0.00
4274	P-1975	752.00	6.00	130.00	Open	2.24	1063.97	1063.97	0.00	0.00
4275	P-1976	720.00	6.00	130.00	Open	7.22	1057.76	1057.76	0.01	0.00
4277	P-1977	746.00	6.00	130.00	Open	1.28	1060.33	1060.33	0.00	0.00
4279	P-1978	670.00	6.00	130.00	Open	2.64	1059.73	1059.72	0.00	0.00
4280	P-1979	847.00	6.00	130.00	Open	1.91	1063.25	1063.25	0.00	0.00
4281	P-1980	711.00	6.00	130.00	Open	0.46	993.37	993.37	0.00	0.00
4283	P-1981	662.00	6.00	130.00	Open	3.75	1064.62	1064.62	0.00	0.00
4285	P-1982	690.00	6.00	130.00	Open	-26.10	991.30	991.36	0.06	0.00
4286	P-1983	890.00	6.00	130.00	Open	19.85	1061.93	1061.88	0.05	0.00
4287	P-1984	670.00	6.00	130.00	Open	-3.44	1057.52	1057.52	0.00	0.00
4289	P-1985	692.00	6.00	130.00	Open	-0.63	1058.09	1058.09	0.00	0.00
4290	P-1986	681.00	6.00	130.00	Open	6.76	1059.05	1059.05	0.00	0.00
4291	P-1987	716.00	6.00	130.00	Open	3.52	1063.37	1063.37	0.00	0.00
4293	P-1988	681.00	6.00	130.00	Open	2.07	1322.91	1322.91	0.00	0.00
4295	P-1989	690.00	6.00	130.00	Open	13.02	1059.95	1059.93	0.02	0.00
4298	P-1990	936.00	6.00	130.00	Open	1.75	1058.75	1058.75	0.00	0.00
4300	P-1991	699.00	6.00	130.00	Open	0.28	1059.74	1059.74	0.00	0.00
4302	P-1992	711.00	6.00	130.00	Open	3.40	1058.77	1058.76	0.00	0.00
4303	P-1993	754.00	6.00	130.00	Open	2.24	1061.30	1061.30	0.00	0.00
4304	P-1994	718.00	6.00	130.00	Open	-5.31	1063.25	1063.25	0.00	0.00
4305	P-1995	697.00	6.00	130.00	Open	2.37	1061.62	1061.62	0.00	0.00
4306	P-1996	698.00	6.00	130.00	Open	-4.97	1062.02	1062.02	0.00	0.00
4307	P-1997	716.00	6.00	130.00	Open	0.91	981.47	981.47	0.00	0.00
4308	P-1998	793.00	6.00	130.00	Open	5.37	1322.92	1322.91	0.00	0.00
4310	P-1999	707.00	6.00	130.00	Open	-18.68	1057.02	1057.05	0.03	0.00
4312	P-2000	721.00	6.00	130.00	Open	15.72	1058.40	1058.38	0.02	0.00
4313	P-2001	713.00	6.00	130.00	Open	-3.17	1060.62	1060.63	0.00	0.00
4314	P-2002	898.00	6.00	130.00	Open	2.44	1063.30	1063.30	0.00	0.00
4315	P-2003	718.00	6.00	130.00	Open	-10.19	1057.82	1057.84	0.01	0.00
4316	P-2004	740.00	6.00	130.00	Open	3.64	1058.67	1058.67	0.00	0.00
4317	P-2005	737.00	6.00	130.00	Open	4.92	1058.75	1058.75	0.00	0.00
4318	P-2006	867.00	6.00	130.00	Open	-1.09	988.98	988.98	0.00	0.00
4320	P-2007	793.00	6.00	130.00	Open	5.19	1064.83	1064.83	0.00	0.00
4321	P-2008	758.00	6.00	130.00	Open	2.11	1064.83	1064.83	0.00	0.00
4322	P-2009	764.00	6.00	130.00	Open	2.32	1063.90	1063.90	0.00	0.00
4324	P-2010	832.00	6.00	130.00	Open	-0.50	1059.73	1059.73	0.00	0.00
4325	P-2011	866.00	6.00	130.00	Open	-3.85	1060.84	1060.84	0.00	0.00
4327	P-2012	745.00	6.00	130.00	Open	-1.28	1062.10	1062.10	0.00	0.00
4329	P-2013	822.00	6.00	130.00	Open	-4.12	1057.83	1057.83	0.00	0.00
4331	P-2014	791.00	6.00	130.00	Open	2.56	1059.72	1059.72	0.00	0.00
4332	P-2015	764.00	6.00	130.00	Open	9.74	1058.68	1058.67	0.01	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4333	P-2016	759.00	6.00	130.00	Open	1.44	1057.76	1057.76	0.00	0.00
4334	P-2017	760.00	6.00	130.00	Open	1.48	1061.72	1061.72	0.00	0.00
4336	P-2018	819.00	6.00	130.00	Open	-6.08	1057.83	1057.84	0.00	0.00
4337	P-2019	803.00	6.00	130.00	Open	3.21	1062.86	1062.86	0.00	0.00
4338	P-2020	778.00	6.00	130.00	Open	1.64	1057.81	1057.81	0.00	0.00
4339	P-2021	827.00	6.00	130.00	Open	-1.65	1057.47	1057.47	0.00	0.00
4341	P-2022	855.00	6.00	130.00	Open	5.19	1057.76	1057.76	0.00	0.00
4344	P-2023	999.00	6.00	130.00	Open	0.74	1322.92	1322.91	0.00	0.00
4345	P-2024	784.00	6.00	130.00	Open	-17.28	1057.85	1057.88	0.03	0.00
4346	P-2025	804.00	6.00	130.00	Open	4.60	981.48	981.47	0.00	0.00
4347	P-2026	823.00	6.00	130.00	Open	24.58	1062.03	1061.96	0.06	0.00
4348	P-2027	948.00	6.00	130.00	Open	0.54	1057.76	1057.76	0.00	0.00
4350	P-2028	810.00	6.00	130.00	Open	3.40	1058.67	1058.67	0.00	0.00
4351	P-2029	817.00	6.00	130.00	Open	0.23	1062.86	1062.86	0.00	0.00
4352	P-2030	906.00	6.00	130.00	Open	3.04	1057.81	1057.81	0.00	0.00
4353	P-2031	823.00	6.00	130.00	Open	1.99	1057.82	1057.82	0.00	0.00
4355	P-2032	924.00	6.00	130.00	Open	0.54	1062.86	1062.86	0.00	0.00
4356	P-2033	827.00	6.00	130.00	Open	11.35	1059.89	1059.88	0.02	0.00
4359	P-2034	1038.00	6.00	130.00	Open	24.79	1057.58	1057.50	0.08	0.00
4361	P-2035	865.00	6.00	130.00	Open	-7.80	1058.37	1058.38	0.01	0.00
4362	P-2036	838.00	6.00	130.00	Open	-1.08	1059.45	1059.45	0.00	0.00
4364	P-2037	864.00	6.00	130.00	Open	12.31	1059.91	1059.89	0.02	0.00
4366	P-2038	854.00	6.00	130.00	Open	22.02	1057.50	1057.44	0.05	0.00
4367	P-2039	921.00	6.00	130.00	Open	-0.63	1059.53	1059.53	0.00	0.00
4368	P-2040	860.00	6.00	130.00	Open	2.55	1058.78	1058.78	0.00	0.00
4369	P-2041	866.00	6.00	130.00	Open	0.23	1057.80	1057.80	0.00	0.00
4371	P-2042	913.00	6.00	130.00	Open	0.43	1064.62	1064.62	0.00	0.00
4372	P-2043	881.00	6.00	130.00	Open	14.25	1064.85	1064.83	0.02	0.00
4373	P-2044	872.00	6.00	130.00	Open	-0.23	1057.80	1057.80	0.00	0.00
4375	P-2045	876.00	6.00	130.00	Open	-3.45	1064.81	1064.81	0.00	0.00
4376	P-2046	889.00	6.00	130.00	Open	0.28	1057.41	1057.41	0.00	0.00
4378	P-2047	894.00	6.00	130.00	Open	1.48	1060.01	1060.01	0.00	0.00
4381	P-2048	924.00	6.00	130.00	Open	3.02	1057.83	1057.83	0.00	0.00
4383	P-2049	1066.00	6.00	130.00	Open	-7.32	1059.95	1059.96	0.01	0.00
4385	P-2050	929.00	6.00	130.00	Open	-1.34	1059.53	1059.53	0.00	0.00
4387	P-2051	905.00	6.00	130.00	Open	10.00	1059.88	1059.86	0.01	0.00
4388	P-2052	905.00	6.00	130.00	Open	12.87	1059.93	1059.91	0.02	0.00
4389	P-2053	954.00	6.00	130.00	Open	-13.70	1056.92	1056.94	0.03	0.00
4390	P-2054	950.00	6.00	130.00	Open	-13.35	1056.98	1057.00	0.02	0.00
4391	P-2055	970.00	6.00	130.00	Open	7.32	1063.72	1063.71	0.01	0.00
4393	P-2056	985.00	6.00	130.00	Open	2.99	1060.06	1060.06	0.00	0.00
4394	P-2057	923.00	6.00	130.00	Open	7.12	1059.73	1059.72	0.01	0.00
4397	P-2058	989.00	6.00	130.00	Open	2.84	1063.71	1063.71	0.00	0.00
4398	P-2059	971.00	6.00	130.00	Open	-2.44	1057.42	1057.42	0.00	0.00
4400	P-2060	999.00	6.00	130.00	Open	4.40	1058.82	1058.81	0.00	0.00
4401	P-2061	1105.00	6.00	130.00	Open	2.70	1057.76	1057.76	0.00	0.00
4402	P-2062	945.00	6.00	130.00	Open	6.79	1064.80	1064.80	0.01	0.00
4404	P-2063	955.00	6.00	130.00	Open	13.43	1057.46	1057.44	0.02	0.00
4405	P-2064	957.00	6.00	130.00	Open	0.38	1057.80	1057.80	0.00	0.00
4406	P-2065	999.00	6.00	130.00	Open	-0.38	1057.80	1057.80	0.00	0.00
4408	P-2066	986.00	6.00	130.00	Open	4.05	1060.01	1060.01	0.00	0.00
4409	P-2067	1015.00	6.00	130.00	Open	-2.84	1057.67	1057.67	0.00	0.00
4411	P-2068	994.00	6.00	130.00	Open	4.63	1064.80	1064.79	0.00	0.00
4412	P-2069	1121.00	6.00	130.00	Open	-2.92	1058.37	1058.37	0.00	0.00
4414	P-2070	998.00	6.00	130.00	Open	-1.70	1059.53	1059.53	0.00	0.00
4416	P-2071	1024.00	6.00	130.00	Open	12.19	1061.64	1061.62	0.02	0.00
4417	P-2072	1039.00	6.00	130.00	Open	-1.34	1057.80	1057.80	0.00	0.00
4418	P-2073	1058.00	6.00	130.00	Open	-5.28	1058.37	1058.38	0.00	0.00
4419	P-2074	1100.00	6.00	130.00	Open	2.07	1057.76	1057.76	0.00	0.00
4421	P-2075	1027.00	6.00	130.00	Open	-3.27	1058.24	1058.24	0.00	0.00
4423	P-2076	1036.00	6.00	130.00	Open	9.19	1057.78	1057.76	0.01	0.00
4425	P-2077	1115.00	6.00	130.00	Open	6.75	1057.77	1057.76	0.01	0.00
4426	P-2078	1146.00	6.00	130.00	Open	-3.88	1057.42	1057.42	0.00	0.00
4427	P-2079	1062.00	6.00	130.00	Open	-1.31	1058.24	1058.24	0.00	0.00
4428	P-2080	1071.00	6.00	130.00	Open	7.10	993.44	993.43	0.01	0.00
4429	P-2081	1349.00	6.00	130.00	Open	22.23	1061.81	1061.72	0.09	0.00
4430	P-2082	1099.00	6.00	130.00	Open	1.44	1064.62	1064.62	0.00	0.00
4431	P-2083	1269.00	6.00	130.00	Open	1.24	1068.85	1068.85	0.00	0.00
4434	P-2084	1309.00	6.00	130.00	Open	-3.16	1322.91	1322.91	0.00	0.00
4435	P-2085	1341.00	6.00	130.00	Open	1.59	1064.62	1064.62	0.00	0.00
4436	P-2086	1183.00	6.00	130.00	Open	3.52	1064.64	1064.63	0.00	0.00
4437	P-2087	1215.00	6.00	130.00	Open	3.63	1057.76	1057.76	0.00	0.00
4438	P-2088	1200.00	6.00	130.00	Open	3.75	1057.83	1057.82	0.00	0.00
4440	P-2089	1313.00	6.00	130.00	Open	-33.38	1062.89	1063.07	0.18	0.00
4442	P-2090	1412.00	6.00	130.00	Open	0.69	1322.91	1322.91	0.00	0.00
4444	P-2091	1641.00	6.00	130.00	Open	-0.60	1218.03	1218.03	0.00	0.00
4445	P-2092	2157.00	6.00	130.00	Open	8.12	991.28	991.26	0.02	0.00
4446	P-2093	1966.00	6.00	130.00	Open	-13.71	993.39	993.44	0.05	0.00
4448	P-2094	1.00	6.10	130.00	Open	-0.26	1322.92	1322.92	0.00	0.00
4450	P-2095	1.00	6.10	130.00	Open	0.48	1060.63	1060.63	0.00	0.00
4452	P-2096	1.00	6.10	130.00	Open	0.48	1060.45	1060.45	0.00	0.00
4455	P-2097	2.00	6.10	130.00	Open	-0.26	1322.96	1322.96	0.00	0.00
4457	P-2098	2.00	6.10	130.00	Open	0.28	1059.36	1059.36	0.00	0.00
4460	P-2099	2.00	6.10	130.00	Open	-1.93	1216.97	1216.97	0.00	0.00
4463	P-2100	2.00	6.10	130.00	Open	0.48	1064.63	1064.63	0.00	0.00
4465	P-2101	3.00	6.10	130.00	Open	0.48	1060.80	1060.80	0.00	0.00
4467	P-2102	3.00	6.10	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
4469	P-2103	3.00	6.10	130.00	Open	-0.48	1060.83	1060.83	0.00	0.00
4472	P-2104	3.00	6.10	130.00	Open	-0.48	1061.85	1061.85	0.00	0.00
4475	P-2105	3.00	6.10	130.00	Open	0.48	1061.29	1061.29	0.00	0.00
4477	P-2106	3.00	6.10	130.00	Open	0.88	1057.40	1057.40	0.00	0.00
4480	P-2107	3.00	6.10	130.00	Open	0.68	1062.89	1062.89	0.00	0.00
4482	P-2108	3.00	6.10	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
4484	P-2109	3.00	6.10	130.00	Open	-0.48	1060.84	1060.84	0.00	0.00
4487	P-2110	3.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4489	P-2111	3.00	6.10	130.00	Open	0.68	1059.76	1059.76	0.00	0.00
4491	P-2112	3.00	6.10	130.00	Open	0.28	1058.24	1058.24	0.00	0.00
4493	P-2113	3.00	6.10	130.00	Open	0.08	981.47	981.47	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4495	P-2114	3.00	6.10	130.00	Open	0.08	1064.87	1064.87	0.00	0.00
4497	P-2115	4.00	6.10	130.00	Open	0.08	1058.58	1058.58	0.00	0.00
4499	P-2116	4.00	6.10	130.00	Open	1.28	1060.94	1060.94	0.00	0.00
4502	P-2117	4.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
4504	P-2118	4.00	6.10	130.00	Open	-1.68	1058.76	1058.76	0.00	0.00
4507	P-2119	4.00	6.10	130.00	Open	2.49	1057.40	1057.40	0.00	0.00
4510	P-2120	4.00	6.10	130.00	Open	-0.48	1064.21	1064.21	0.00	0.00
4512	P-2121	4.00	6.10	130.00	Open	0.88	1057.42	1057.42	0.00	0.00
4515	P-2122	4.00	6.10	130.00	Open	0.88	1057.40	1057.40	0.00	0.00
4517	P-2123	4.00	6.10	130.00	Open	0.48	1062.79	1062.79	0.00	0.00
4519	P-2124	4.00	6.10	130.00	Open	0.40	1322.92	1322.92	0.00	0.00
4521	P-2125	4.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
4523	P-2126	4.00	6.10	130.00	Open	0.08	1060.36	1060.36	0.00	0.00
4526	P-2127	4.00	6.10	130.00	Open	-0.28	1064.45	1064.45	0.00	0.00
4528	P-2128	4.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4531	P-2129	4.00	6.10	130.00	Open	-0.08	1057.81	1057.81	0.00	0.00
4533	P-2130	4.00	6.10	130.00	Open	0.08	1064.64	1064.64	0.00	0.00
4535	P-2131	4.00	6.10	130.00	Open	0.28	1057.44	1057.44	0.00	0.00
4537	P-2132	4.00	6.10	130.00	Open	0.68	981.47	981.47	0.00	0.00
4539	P-2133	4.00	6.10	130.00	Open	0.28	1058.76	1058.76	0.00	0.00
4542	P-2134	4.00	6.10	130.00	Open	0.11	1322.91	1322.91	0.00	0.00
4545	P-2135	4.00	6.10	130.00	Open	0.88	1057.76	1057.76	0.00	0.00
4547	P-2136	4.00	6.10	130.00	Open	-0.28	1058.74	1058.74	0.00	0.00
4550	P-2137	4.00	6.10	130.00	Open	0.08	1057.41	1057.41	0.00	0.00
4553	P-2138	4.00	6.10	130.00	Open	0.08	1060.81	1060.81	0.00	0.00
4555	P-2139	4.00	6.10	130.00	Open	0.08	1059.66	1059.66	0.00	0.00
4557	P-2140	4.00	6.10	130.00	Open	-0.48	1060.91	1060.91	0.00	0.00
4559	P-2141	4.00	6.10	130.00	Open	-0.20	1218.02	1218.02	0.00	0.00
4562	P-2142	4.00	6.10	130.00	Open	-0.88	1061.60	1061.60	0.00	0.00
4564	P-2143	4.00	6.10	130.00	Open	-0.08	1060.83	1060.83	0.00	0.00
4567	P-2144	4.00	6.10	130.00	Open	0.28	1064.25	1064.25	0.00	0.00
4569	P-2145	4.00	6.10	130.00	Open	0.08	1058.71	1058.71	0.00	0.00
4572	P-2146	4.00	6.10	130.00	Open	-1.08	1057.83	1057.83	0.00	0.00
4574	P-2147	4.00	6.10	130.00	Open	0.48	1057.83	1057.83	0.00	0.00
4577	P-2148	4.00	6.10	130.00	Open	1.08	1057.96	1057.96	0.00	0.00
4580	P-2149	4.00	6.10	130.00	Open	1.28	1058.75	1058.75	0.00	0.00
4583	P-2150	4.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4585	P-2151	4.00	6.10	130.00	Open	0.48	1058.75	1058.75	0.00	0.00
4587	P-2152	4.00	6.10	130.00	Open	0.08	1060.16	1060.16	0.00	0.00
5068	P-2153	7.00	6.10	130.00	Open	0.48	981.48	981.48	0.00	0.00
5071	P-2154	7.00	6.10	130.00	Open	0.08	1064.28	1064.28	0.00	0.00
5073	P-2155	7.00	6.10	130.00	Open	2.09	1057.88	1057.88	0.00	0.00
5075	P-2156	7.00	6.10	130.00	Open	-0.28	1058.91	1058.91	0.00	0.00
5077	P-2157	7.00	6.10	130.00	Open	0.28	1064.62	1064.62	0.00	0.00
5079	P-2158	7.00	6.10	130.00	Open	0.08	1058.72	1058.72	0.00	0.00
5081	P-2159	7.00	6.10	130.00	Open	0.48	1058.21	1058.21	0.00	0.00
5083	P-2160	7.00	6.10	130.00	Open	-0.08	1064.61	1064.61	0.00	0.00
5085	P-2161	7.00	6.10	130.00	Open	0.48	1057.41	1057.41	0.00	0.00
5087	P-2162	7.00	6.10	130.00	Open	0.08	1058.69	1058.69	0.00	0.00
5089	P-2163	7.00	6.10	130.00	Open	0.48	1059.73	1059.73	0.00	0.00
5091	P-2164	7.00	6.10	130.00	Open	-0.48	1064.19	1064.19	0.00	0.00
5093	P-2165	7.00	6.10	130.00	Open	0.08	1060.34	1060.34	0.00	0.00
5096	P-2166	7.00	6.10	130.00	Open	0.48	1061.66	1061.66	0.00	0.00
5098	P-2167	7.00	6.10	130.00	Open	0.48	1058.74	1058.74	0.00	0.00
5100	P-2168	7.00	6.10	130.00	Open	-0.08	1058.67	1058.67	0.00	0.00
5102	P-2169	7.00	6.10	130.00	Open	0.68	981.48	981.48	0.00	0.00
5105	P-2170	7.00	6.10	130.00	Open	0.48	1060.84	1060.84	0.00	0.00
5107	P-2171	7.00	6.10	130.00	Open	-0.48	1059.27	1059.27	0.00	0.00
5109	P-2172	9.00	6.10	130.00	Open	0.08	1061.21	1061.21	0.00	0.00
5111	P-2173	7.00	6.10	130.00	Open	0.68	1057.80	1057.80	0.00	0.00
5113	P-2174	7.00	6.10	130.00	Open	0.88	1058.24	1058.24	0.00	0.00
5115	P-2175	7.00	6.10	130.00	Open	-0.48	1058.67	1058.67	0.00	0.00
5117	P-2176	7.00	6.10	130.00	Open	-0.08	1064.11	1064.11	0.00	0.00
5119	P-2177	7.00	6.10	130.00	Open	0.28	1057.88	1057.88	0.00	0.00
5122	P-2178	7.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
5125	P-2179	7.00	6.10	130.00	Open	-0.08	1064.10	1064.10	0.00	0.00
5127	P-2180	7.00	6.10	130.00	Open	-0.08	1064.11	1064.11	0.00	0.00
5129	P-2181	7.00	6.10	130.00	Open	-0.28	1063.91	1063.91	0.00	0.00
5131	P-2182	7.00	6.10	130.00	Open	0.48	1063.57	1063.57	0.00	0.00
5133	P-2183	7.00	6.10	130.00	Open	-0.28	1064.07	1064.07	0.00	0.00
5135	P-2184	7.00	6.10	130.00	Open	0.08	1058.56	1058.56	0.00	0.00
5137	P-2185	7.00	6.10	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
5140	P-2186	7.00	6.10	130.00	Open	-0.08	1062.86	1062.86	0.00	0.00
5142	P-2187	7.00	6.10	130.00	Open	-0.08	1059.26	1059.26	0.00	0.00
5144	P-2188	7.00	6.10	130.00	Open	0.08	1058.85	1058.85	0.00	0.00
5146	P-2189	7.00	6.10	130.00	Open	0.68	1057.81	1057.81	0.00	0.00
5148	P-2190	7.00	6.10	130.00	Open	0.88	1057.82	1057.82	0.00	0.00
5150	P-2191	7.00	6.10	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
5153	P-2192	7.00	6.10	130.00	Open	0.88	963.94	963.94	0.00	0.00
5156	P-2193	7.00	6.10	130.00	Open	-0.08	1063.37	1063.37	0.00	0.00
5159	P-2194	7.00	6.10	130.00	Open	0.48	1058.75	1058.75	0.00	0.00
5161	P-2195	7.00	6.10	130.00	Open	0.28	1061.62	1061.62	0.00	0.00
5164	P-2196	7.00	6.10	130.00	Open	-0.08	1063.37	1063.37	0.00	0.00
5166	P-2197	7.00	6.10	130.00	Open	0.08	1058.64	1058.64	0.00	0.00
5169	P-2198	7.00	6.10	130.00	Open	-0.08	1058.78	1058.78	0.00	0.00
5171	P-2199	7.00	6.10	130.00	Open	-0.48	1064.62	1064.62	0.00	0.00
5173	P-2200	7.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
5175	P-2201	7.00	6.10	130.00	Open	-0.08	1064.08	1064.08	0.00	0.00
5177	P-2202	7.00	6.10	130.00	Open	0.08	1057.84	1057.84	0.00	0.00
5179	P-2203	7.00	6.10	130.00	Open	-0.48	1059.04	1059.04	0.00	0.00
5181	P-2204	7.00	6.10	130.00	Open	0.68	1060.83	1060.83	0.00	0.00
5183	P-2205	7.00	6.10	130.00	Open	0.88	1059.73	1059.73	0.00	0.00
5186	P-2206	7.00	6.10	130.00	Open	-0.26	1322.93	1322.93	0.00	0.00
5188	P-2207	7.00	6.10	130.00	Open	0.08	1058.73	1058.73	0.00	0.00
5190	P-2208	7.00	6.10	130.00	Open	1.28	1058.38	1058.38	0.00	0.00
5192	P-2209	7.00	6.10	130.00	Open	0.88	1057.83	1057.83	0.00	0.00
5194	P-2210	7.00	6.10	130.00	Open	-1.88	1061.93	1061.93	0.00	0.00
5196	P-2211	7.00	6.10	130.00	Open	0.08	1064.39	1064.39	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5198	P-2212	7.00	6.10	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
5200	P-2213	7.00	6.10	130.00	Open	0.88	1059.93	1059.93	0.00	0.00
5203	P-2214	7.00	6.10	130.00	Open	0.88	1057.76	1057.76	0.00	0.00
5205	P-2215	7.00	6.10	130.00	Open	0.28	963.95	963.95	0.00	0.00
5207	P-2216	7.00	6.10	130.00	Open	0.88	1064.62	1064.62	0.00	0.00
5209	P-2217	7.00	6.10	130.00	Open	0.28	1057.84	1057.84	0.00	0.00
5211	P-2218	7.00	6.10	130.00	Open	0.48	1057.83	1057.83	0.00	0.00
5214	P-2219	7.00	6.10	130.00	Open	0.08	1058.81	1058.81	0.00	0.00
5217	P-2220	7.00	6.10	130.00	Open	-1.08	1059.27	1059.27	0.00	0.00
5220	P-2221	7.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
5222	P-2222	7.00	6.10	130.00	Open	1.48	1060.15	1060.15	0.00	0.00
5225	P-2223	7.00	6.10	130.00	Open	-1.08	981.49	981.49	0.00	0.00
5228	P-2224	7.00	6.10	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
5231	P-2225	7.00	6.10	130.00	Open	-0.08	1059.71	1059.71	0.00	0.00
5233	P-2226	7.00	6.10	130.00	Open	0.28	1057.77	1057.77	0.00	0.00
5235	P-2227	7.00	6.10	130.00	Open	0.68	1057.99	1057.99	0.00	0.00
5238	P-2228	7.00	6.10	130.00	Open	-0.28	1059.16	1059.16	0.00	0.00
5241	P-2229	7.00	6.10	130.00	Open	1.88	1059.74	1059.74	0.00	0.00
5244	P-2230	7.00	6.10	130.00	Open	-0.20	1217.47	1217.47	0.00	0.00
5246	P-2231	7.00	6.10	130.00	Open	0.48	1060.86	1060.86	0.00	0.00
5249	P-2232	7.00	6.10	130.00	Open	0.48	1064.12	1064.12	0.00	0.00
5251	P-2233	7.00	6.10	130.00	Open	-0.28	1058.82	1058.82	0.00	0.00
5253	P-2234	7.00	6.10	130.00	Open	-0.08	1063.66	1063.66	0.00	0.00
5255	P-2235	7.00	6.10	130.00	Open	-0.20	1217.77	1217.77	0.00	0.00
5258	P-2236	7.00	6.10	130.00	Open	0.63	1218.03	1218.03	0.00	0.00
5260	P-2237	7.00	6.10	130.00	Open	0.68	1060.81	1060.81	0.00	0.00
5262	P-2238	7.00	6.10	130.00	Open	-0.11	1322.94	1322.94	0.00	0.00
5264	P-2239	7.00	6.10	130.00	Open	-0.08	1058.75	1058.75	0.00	0.00
5266	P-2240	7.00	6.10	130.00	Open	1.08	1057.91	1057.91	0.00	0.00
5268	P-2241	7.00	6.10	130.00	Open	-0.48	1058.88	1058.88	0.00	0.00
5270	P-2242	7.00	6.10	130.00	Open	0.48	1061.11	1061.11	0.00	0.00
5273	P-2243	7.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
5275	P-2244	7.00	6.10	130.00	Open	0.68	1060.11	1060.11	0.00	0.00
5278	P-2245	7.00	6.10	130.00	Open	0.68	1059.82	1059.82	0.00	0.00
5280	P-2246	7.00	6.10	130.00	Open	0.81	1218.03	1218.03	0.00	0.00
5283	P-2247	7.00	6.10	130.00	Open	-0.48	1064.09	1064.09	0.00	0.00
5285	P-2248	7.00	6.10	130.00	Open	0.28	1059.13	1059.13	0.00	0.00
5287	P-2249	7.00	6.10	130.00	Open	-0.20	1216.49	1216.49	0.00	0.00
5289	P-2250	7.00	6.10	130.00	Open	0.28	1060.08	1060.08	0.00	0.00
5291	P-2251	7.00	6.10	130.00	Open	0.08	1059.93	1059.93	0.00	0.00
5294	P-2252	7.00	6.10	130.00	Open	0.48	1058.06	1058.06	0.00	0.00
5296	P-2253	7.00	6.10	130.00	Open	0.48	1063.35	1063.35	0.00	0.00
5298	P-2254	7.00	6.10	130.00	Open	-0.08	1058.77	1058.77	0.00	0.00
5301	P-2255	7.00	6.10	130.00	Open	0.48	1062.02	1062.02	0.00	0.00
5303	P-2256	8.00	6.10	130.00	Open	-0.88	1063.08	1063.08	0.00	0.00
5306	P-2257	7.00	6.10	130.00	Open	0.08	1059.04	1059.04	0.00	0.00
5788	P-2258	9.00	6.10	130.00	Open	0.48	1058.36	1058.36	0.00	0.00
5790	P-2259	9.00	6.10	130.00	Open	1.48	1058.63	1058.63	0.00	0.00
5792	P-2260	9.00	6.10	130.00	Open	0.28	1061.62	1061.62	0.00	0.00
5795	P-2261	9.00	6.10	130.00	Open	-0.48	1063.90	1063.90	0.00	0.00
5798	P-2262	9.00	6.10	130.00	Open	-0.08	1059.53	1059.53	0.00	0.00
5801	P-2263	9.00	6.10	130.00	Open	0.68	1057.82	1057.82	0.00	0.00
5804	P-2264	9.00	6.10	130.00	Open	-0.20	1218.43	1218.43	0.00	0.00
5806	P-2265	9.00	6.10	130.00	Open	-0.28	1059.73	1059.73	0.00	0.00
5808	P-2266	9.00	6.10	130.00	Open	-0.08	1058.64	1058.64	0.00	0.00
5810	P-2267	9.00	6.10	130.00	Open	0.29	993.48	993.48	0.00	0.00
5812	P-2268	9.00	6.10	130.00	Open	0.48	1064.10	1064.10	0.00	0.00
5814	P-2269	9.00	6.10	130.00	Open	0.48	1061.54	1061.54	0.00	0.00
5817	P-2270	9.00	6.10	130.00	Open	-0.28	1061.62	1061.62	0.00	0.00
5819	P-2271	9.00	6.10	130.00	Open	0.88	1062.84	1062.84	0.00	0.00
5821	P-2272	9.00	6.10	130.00	Open	0.68	981.49	981.49	0.00	0.00
5823	P-2273	9.00	6.10	130.00	Open	0.88	1057.92	1057.92	0.00	0.00
5825	P-2274	9.00	6.10	130.00	Open	-0.08	1062.03	1062.03	0.00	0.00
5827	P-2275	9.00	6.10	130.00	Open	0.28	1057.96	1057.96	0.00	0.00
5830	P-2276	9.00	6.10	130.00	Open	1.08	1057.85	1057.85	0.00	0.00
5832	P-2277	9.00	6.10	130.00	Open	0.48	1063.08	1063.08	0.00	0.00
5834	P-2278	9.00	6.10	130.00	Open	0.08	1059.96	1059.96	0.00	0.00
5837	P-2279	9.00	6.10	130.00	Open	-0.08	1062.02	1062.02	0.00	0.00
5839	P-2280	9.00	6.10	130.00	Open	2.09	1057.40	1057.40	0.00	0.00
5842	P-2281	9.00	6.10	130.00	Open	0.28	1057.83	1057.83	0.00	0.00
5844	P-2282	9.00	6.10	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
5846	P-2283	9.00	6.10	130.00	Open	-0.08	1064.75	1064.75	0.00	0.00
5848	P-2284	9.00	6.10	130.00	Open	-0.20	1218.50	1218.50	0.00	0.00
5850	P-2285	9.00	6.10	130.00	Open	0.48	1057.42	1057.42	0.00	0.00
5852	P-2286	9.00	6.10	130.00	Open	-1.88	1063.37	1063.37	0.00	0.00
5855	P-2287	9.00	6.10	130.00	Open	0.88	1059.23	1059.23	0.00	0.00
5857	P-2288	9.00	6.10	130.00	Open	0.48	1057.83	1057.83	0.00	0.00
5859	P-2289	9.00	6.10	130.00	Open	0.20	1218.13	1218.13	0.00	0.00
5861	P-2290	9.00	6.10	130.00	Open	-0.28	1059.93	1059.93	0.00	0.00
5864	P-2291	9.00	6.10	130.00	Open	0.68	1057.84	1057.84	0.00	0.00
5866	P-2292	9.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5868	P-2293	9.00	6.10	130.00	Open	0.48	1058.69	1058.69	0.00	0.00
5871	P-2294	9.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5873	P-2295	9.00	6.10	130.00	Open	0.08	1057.47	1057.47	0.00	0.00
5875	P-2296	9.00	6.10	130.00	Open	1.68	1060.01	1060.01	0.00	0.00
5877	P-2297	9.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5880	P-2298	9.00	6.10	130.00	Open	-0.20	1218.55	1218.55	0.00	0.00
5882	P-2299	9.00	6.10	130.00	Open	-0.48	1063.57	1063.57	0.00	0.00
5884	P-2300	9.00	6.10	130.00	Open	0.08	1060.88	1060.88	0.00	0.00
5886	P-2301	9.00	6.10	130.00	Open	-0.20	1218.02	1218.02	0.00	0.00
5888	P-2302	9.00	6.10	130.00	Open	-0.20	1218.10	1218.10	0.00	0.00
5890	P-2303	9.00	6.10	130.00	Open	0.08	1060.96	1060.96	0.00	0.00
5892	P-2304	9.00	6.10	130.00	Open	-0.48	1058.69	1058.69	0.00	0.00
5894	P-2305	9.00	6.10	130.00	Open	-0.48	1061.62	1061.62	0.00	0.00
5896	P-2306	9.00	6.10	130.00	Open	0.08	1057.96	1057.96	0.00	0.00
5899	P-2307	9.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5901	P-2308	9.00	6.10	130.00	Open	0.48	1059.53	1059.53	0.00	0.00
5903	P-2309	10.00	6.10	130.00	Open	-0.68	1064.12	1064.12	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5906	P-2310	9.00	6.10	130.00	Open	2.49	1058.62	1058.62	0.00	0.00
5908	P-2311	9.00	6.10	130.00	Open	-0.20	1218.38	1218.38	0.00	0.00
5910	P-2312	9.00	6.10	130.00	Open	0.20	1216.70	1216.70	0.00	0.00
5912	P-2313	10.00	6.10	130.00	Open	0.29	1218.74	1218.74	0.00	0.00
5914	P-2314	10.00	6.10	130.00	Open	0.20	1217.91	1217.91	0.00	0.00
5916	P-2315	10.00	6.10	130.00	Open	-0.20	1218.68	1218.68	0.00	0.00
5918	P-2316	10.00	6.10	130.00	Open	0.88	1060.45	1060.45	0.00	0.00
5921	P-2317	10.00	6.10	130.00	Open	-0.20	1218.23	1218.23	0.00	0.00
5923	P-2318	10.00	6.10	130.00	Open	-0.68	1060.82	1060.82	0.00	0.00
5926	P-2319	10.00	6.10	130.00	Open	0.28	1059.95	1059.95	0.00	0.00
5928	P-2320	10.00	6.10	130.00	Open	-0.20	1218.96	1218.96	0.00	0.00
5930	P-2321	10.00	6.10	130.00	Open	0.28	1057.44	1057.44	0.00	0.00
5932	P-2322	10.00	6.10	130.00	Open	0.88	1061.99	1061.99	0.00	0.00
5935	P-2323	10.00	6.10	130.00	Open	0.08	1060.86	1060.86	0.00	0.00
5937	P-2324	10.00	6.10	130.00	Open	0.08	1060.45	1060.45	0.00	0.00
5940	P-2325	10.00	6.10	130.00	Open	0.48	1061.16	1061.16	0.00	0.00
5943	P-2326	10.00	6.10	130.00	Open	0.48	1060.45	1060.45	0.00	0.00
5946	P-2327	10.00	6.10	130.00	Open	0.29	1217.30	1217.30	0.00	0.00
5948	P-2328	10.00	6.10	130.00	Open	-0.20	1219.00	1219.00	0.00	0.00
5950	P-2329	10.00	6.10	130.00	Open	0.48	1057.47	1057.47	0.00	0.00
5952	P-2330	10.00	6.10	130.00	Open	0.48	981.48	981.48	0.00	0.00
5954	P-2331	10.00	6.10	130.00	Open	0.08	1059.86	1059.86	0.00	0.00
5956	P-2332	10.00	6.10	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
5958	P-2333	10.00	6.10	130.00	Open	0.08	963.95	963.95	0.00	0.00
5960	P-2334	10.00	6.10	130.00	Open	-0.68	1059.15	1059.15	0.00	0.00
5962	P-2335	10.00	6.10	130.00	Open	-0.20	1218.32	1218.32	0.00	0.00
5964	P-2336	10.00	6.10	130.00	Open	-0.26	1322.91	1322.91	0.00	0.00
5966	P-2337	10.00	6.10	130.00	Open	-0.28	1064.79	1064.79	0.00	0.00
5968	P-2338	10.00	6.10	130.00	Open	0.48	1057.79	1057.79	0.00	0.00
5971	P-2339	10.00	6.10	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
5973	P-2340	10.00	6.10	130.00	Open	-0.37	1218.85	1218.85	0.00	0.00
5975	P-2341	10.00	6.10	130.00	Open	0.48	1057.79	1057.79	0.00	0.00
5978	P-2342	10.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5980	P-2343	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5982	P-2344	10.00	6.10	130.00	Open	0.08	1057.84	1057.84	0.00	0.00
5985	P-2345	10.00	6.10	130.00	Open	-0.20	1218.60	1218.60	0.00	0.00
5987	P-2346	10.00	6.10	130.00	Open	0.88	1057.90	1057.90	0.00	0.00
5990	P-2347	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5992	P-2348	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5994	P-2349	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5996	P-2350	10.00	6.10	130.00	Open	0.68	1058.59	1058.59	0.00	0.00
5998	P-2351	10.00	6.10	130.00	Open	-0.20	1218.62	1218.62	0.00	0.00
6000	P-2352	10.00	6.10	130.00	Open	0.68	1057.89	1057.89	0.00	0.00
6003	P-2353	10.00	6.10	130.00	Open	0.08	1060.05	1060.05	0.00	0.00
6005	P-2354	10.00	6.10	130.00	Open	-0.28	1058.67	1058.67	0.00	0.00
6007	P-2355	10.00	6.10	130.00	Open	0.48	1063.41	1063.41	0.00	0.00
6009	P-2356	10.00	6.10	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
6012	P-2357	10.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
6014	P-2358	10.00	6.10	130.00	Open	0.08	1060.23	1060.23	0.00	0.00
6016	P-2359	10.00	6.10	130.00	Open	-0.08	1061.61	1061.61	0.00	0.00
6018	P-2360	10.00	6.10	130.00	Open	0.08	1057.81	1057.81	0.00	0.00
6021	P-2361	10.00	6.10	130.00	Open	0.28	1058.09	1058.09	0.00	0.00
6023	P-2362	10.00	6.10	130.00	Open	0.88	1059.21	1059.21	0.00	0.00
6025	P-2363	10.00	6.10	130.00	Open	0.48	1059.82	1059.82	0.00	0.00
6028	P-2364	10.00	6.10	130.00	Open	0.28	1057.76	1057.76	0.00	0.00
6030	P-2365	10.00	6.10	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
6033	P-2366	10.00	6.10	130.00	Open	0.28	1064.80	1064.80	0.00	0.00
6035	P-2367	10.00	6.10	130.00	Open	0.28	1058.64	1058.64	0.00	0.00
6037	P-2368	10.00	6.10	130.00	Open	-0.48	1060.20	1060.20	0.00	0.00
6040	P-2369	10.00	6.10	130.00	Open	0.88	1061.66	1061.66	0.00	0.00
6043	P-2370	10.00	6.10	130.00	Open	-0.68	1064.63	1064.63	0.00	0.00
6046	P-2371	10.00	6.10	130.00	Open	-0.28	1064.21	1064.21	0.00	0.00
6049	P-2372	10.00	6.10	130.00	Open	0.68	1057.80	1057.80	0.00	0.00
6051	P-2373	10.00	6.10	130.00	Open	1.88	1060.16	1060.16	0.00	0.00
6054	P-2374	10.00	6.10	130.00	Open	0.48	1061.66	1061.66	0.00	0.00
6057	P-2375	10.00	6.10	130.00	Open	0.08	1061.38	1061.38	0.00	0.00
6060	P-2376	10.00	6.10	130.00	Open	-0.63	988.98	988.98	0.00	0.00
6063	P-2377	10.00	6.10	130.00	Open	-0.20	1217.75	1217.75	0.00	0.00
6066	P-2378	10.00	6.10	130.00	Open	-0.20	1218.17	1218.17	0.00	0.00
6068	P-2379	10.00	6.10	130.00	Open	-0.46	967.36	967.36	0.00	0.00
6071	P-2380	10.00	6.10	130.00	Open	-0.20	1217.79	1217.79	0.00	0.00
6074	P-2381	10.00	6.10	130.00	Open	-0.20	988.99	988.99	0.00	0.00
6077	P-2382	10.00	6.10	130.00	Open	-0.08	1064.12	1064.12	0.00	0.00
6079	P-2383	10.00	6.10	130.00	Open	0.08	1064.60	1064.60	0.00	0.00
6082	P-2384	10.00	6.10	130.00	Open	0.88	1064.80	1064.80	0.00	0.00
6084	P-2385	10.00	6.10	130.00	Open	0.08	1057.69	1057.69	0.00	0.00
6086	P-2386	10.00	6.10	130.00	Open	0.20	1218.24	1218.24	0.00	0.00
6089	P-2387	10.00	6.10	130.00	Open	-0.20	1218.29	1218.29	0.00	0.00
6092	P-2388	10.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
6094	P-2389	10.00	6.10	130.00	Open	0.08	1060.99	1060.99	0.00	0.00
6096	P-2390	10.00	6.10	130.00	Open	0.28	1058.37	1058.37	0.00	0.00
6098	P-2391	10.00	6.10	130.00	Open	0.08	1057.42	1057.42	0.00	0.00
6100	P-2392	10.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
6102	P-2393	10.00	6.10	130.00	Open	0.48	1057.42	1057.42	0.00	0.00
6105	P-2394	10.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
6108	P-2395	10.00	6.10	130.00	Open	0.08	1058.91	1058.91	0.00	0.00
6110	P-2396	10.00	6.10	130.00	Open	0.29	1217.99	1217.99	0.00	0.00
6112	P-2397	10.00	6.10	130.00	Open	0.20	1218.17	1218.17	0.00	0.00
6115	P-2398	10.00	6.10	130.00	Open	0.20	1218.34	1218.34	0.00	0.00
6118	P-2399	10.00	6.10	130.00	Open	-0.20	1218.20	1218.20	0.00	0.00
6120	P-2400	10.00	6.10	130.00	Open	-0.48	1058.83	1058.83	0.00	0.00
6123	P-2401	10.00	6.10	130.00	Open	0.20	1218.16	1218.16	0.00	0.00
6126	P-2402	10.00	6.10	130.00	Open	0.08	1057.40	1057.40	0.00	0.00
6129	P-2403	10.00	6.10	130.00	Open	0.68	1057.50	1057.50	0.00	0.00
6131	P-2404	10.00	6.10	130.00	Open	-0.20	1218.31	1218.31	0.00	0.00
6133	P-2405	10.00	6.10	130.00	Open	0.28	1064.87	1064.87	0.00	0.00
6136	P-2406	10.00	6.10	130.00	Open	0.88	1057.80	1057.80	0.00	0.00
6138	P-2407	10.00	6.10	130.00	Open	0.08	1060.05	1060.05	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6141	P-2408	10.00	6.10	130.00	Open	0.28	1060.66	1060.66	0.00	0.00
6143	P-2409	10.00	6.10	130.00	Open	0.29	1218.03	1218.03	0.00	0.00
6145	P-2410	10.00	6.10	130.00	Open	0.48	1057.45	1057.45	0.00	0.00
6147	P-2411	10.00	6.10	130.00	Open	0.48	1064.83	1064.83	0.00	0.00
6149	P-2412	10.00	6.10	130.00	Open	0.88	963.94	963.94	0.00	0.00
6152	P-2413	10.00	6.10	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
6154	P-2414	10.00	6.10	130.00	Open	-0.68	1061.61	1061.61	0.00	0.00
6156	P-2415	10.00	6.10	130.00	Open	0.68	873.78	873.78	0.00	0.00
6159	P-2416	10.00	6.10	130.00	Open	0.88	1057.68	1057.68	0.00	0.00
6162	P-2417	10.00	6.10	130.00	Open	0.08	1064.85	1064.85	0.00	0.00
6165	P-2418	10.00	6.10	130.00	Open	0.68	1063.71	1063.71	0.00	0.00
6167	P-2419	10.00	6.10	130.00	Open	0.28	1060.12	1060.12	0.00	0.00
6170	P-2420	10.00	6.10	130.00	Open	0.08	1060.74	1060.74	0.00	0.00
6172	P-2421	10.00	6.10	130.00	Open	0.28	1060.37	1060.37	0.00	0.00
6174	P-2422	10.00	6.10	130.00	Open	0.48	1059.95	1059.95	0.00	0.00
6177	P-2423	10.00	6.10	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
6179	P-2424	11.00	6.10	130.00	Open	-0.48	1063.87	1063.87	0.00	0.00
6181	P-2425	11.00	6.10	130.00	Open	-0.48	1063.49	1063.49	0.00	0.00
6183	P-2426	11.00	6.10	130.00	Open	-0.11	1322.98	1322.98	0.00	0.00
6185	P-2427	11.00	6.10	130.00	Open	0.68	1064.81	1064.81	0.00	0.00
6187	P-2428	11.00	6.10	130.00	Open	1.28	1064.62	1064.62	0.00	0.00
6190	P-2429	11.00	6.10	130.00	Open	0.48	1057.79	1057.79	0.00	0.00
6193	P-2430	11.00	6.10	130.00	Open	1.08	1057.76	1057.76	0.00	0.00
6195	P-2431	11.00	6.10	130.00	Open	0.28	1059.53	1059.53	0.00	0.00
6198	P-2432	11.00	6.10	130.00	Open	0.88	1060.83	1060.83	0.00	0.00
6201	P-2433	11.00	6.10	130.00	Open	0.88	1057.44	1057.44	0.00	0.00
6204	P-2434	11.00	6.10	130.00	Open	0.20	1218.19	1218.19	0.00	0.00
6207	P-2435	11.00	6.10	130.00	Open	-0.20	1218.01	1218.01	0.00	0.00
6209	P-2436	11.00	6.10	130.00	Open	0.28	1060.94	1060.94	0.00	0.00
6211	P-2437	11.00	6.10	130.00	Open	1.08	1057.80	1057.80	0.00	0.00
6214	P-2438	11.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
6217	P-2439	11.00	6.10	130.00	Open	0.48	1061.60	1061.60	0.00	0.00
6219	P-2440	11.00	6.10	130.00	Open	-0.48	1062.86	1062.86	0.00	0.00
6221	P-2441	11.00	6.10	130.00	Open	0.20	1218.35	1218.35	0.00	0.00
6224	P-2442	11.00	6.10	130.00	Open	0.20	1218.21	1218.21	0.00	0.00
6227	P-2443	11.00	6.10	130.00	Open	-1.48	1063.30	1063.30	0.00	0.00
6230	P-2444	11.00	6.10	130.00	Open	1.28	1057.81	1057.81	0.00	0.00
6232	P-2445	11.00	6.10	130.00	Open	0.20	1218.23	1218.23	0.00	0.00
6235	P-2446	11.00	6.10	130.00	Open	-0.88	1064.21	1064.21	0.00	0.00
6238	P-2447	11.00	6.10	130.00	Open	0.48	1057.68	1057.68	0.00	0.00
6241	P-2448	11.00	6.10	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
6244	P-2449	11.00	6.10	130.00	Open	0.08	1063.91	1063.91	0.00	0.00
6247	P-2450	11.00	6.10	130.00	Open	-0.28	1058.95	1058.95	0.00	0.00
6250	P-2451	11.00	6.10	130.00	Open	-0.20	1217.87	1217.87	0.00	0.00
6252	P-2452	11.00	6.10	130.00	Open	0.48	1060.77	1060.77	0.00	0.00
6254	P-2453	11.00	6.10	130.00	Open	0.28	1057.84	1057.84	0.00	0.00
6257	P-2454	11.00	6.10	130.00	Open	-0.08	1063.71	1063.71	0.00	0.00
6259	P-2455	11.00	6.10	130.00	Open	1.08	1060.45	1060.45	0.00	0.00
6262	P-2456	11.00	6.10	130.00	Open	0.88	1061.17	1061.17	0.00	0.00
6264	P-2457	11.00	6.10	130.00	Open	-0.20	1217.93	1217.93	0.00	0.00
6266	P-2458	11.00	6.10	130.00	Open	-0.20	1217.83	1217.83	0.00	0.00
6268	P-2459	11.00	6.10	130.00	Open	-0.20	1217.89	1217.89	0.00	0.00
6270	P-2460	11.00	6.10	130.00	Open	-0.20	1217.92	1217.92	0.00	0.00
6272	P-2461	11.00	6.10	130.00	Open	-0.37	1217.76	1217.76	0.00	0.00
6275	P-2462	11.00	6.10	130.00	Open	-0.20	967.37	967.37	0.00	0.00
6278	P-2463	11.00	6.10	130.00	Open	0.48	1057.81	1057.81	0.00	0.00
6280	P-2464	11.00	6.10	130.00	Open	-0.88	1064.83	1064.83	0.00	0.00
6282	P-2465	11.00	6.10	130.00	Open	-0.08	1064.91	1064.91	0.00	0.00
6284	P-2466	11.00	6.10	130.00	Open	-0.08	1059.20	1059.20	0.00	0.00
6287	P-2467	11.00	6.10	130.00	Open	0.08	1063.15	1063.15	0.00	0.00
6289	P-2468	11.00	6.10	130.00	Open	-0.48	1060.91	1060.91	0.00	0.00
6291	P-2469	11.00	6.10	130.00	Open	1.28	1059.43	1059.43	0.00	0.00
6294	P-2470	11.00	6.10	130.00	Open	0.88	1061.62	1061.62	0.00	0.00
6296	P-2471	11.00	6.10	130.00	Open	0.48	873.78	873.78	0.00	0.00
6299	P-2472	11.00	6.10	130.00	Open	1.68	1057.00	1057.00	0.00	0.00
6301	P-2473	11.00	6.10	130.00	Open	0.48	1057.44	1057.44	0.00	0.00
6304	P-2474	11.00	6.10	130.00	Open	0.08	1060.04	1060.04	0.00	0.00
6307	P-2475	11.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6309	P-2476	11.00	6.10	130.00	Open	0.08	1061.04	1061.04	0.00	0.00
6311	P-2477	11.00	6.10	130.00	Open	-0.08	1060.91	1060.91	0.00	0.00
6313	P-2478	11.00	6.10	130.00	Open	1.48	1060.80	1060.80	0.00	0.00
6316	P-2479	11.00	6.10	130.00	Open	0.88	1056.73	1056.73	0.00	0.00
6318	P-2480	11.00	6.10	130.00	Open	0.28	1057.79	1057.79	0.00	0.00
6320	P-2481	11.00	6.10	130.00	Open	-0.88	1059.35	1059.35	0.00	0.00
6323	P-2482	11.00	6.10	130.00	Open	1.48	1057.79	1057.79	0.00	0.00
6326	P-2483	11.00	6.10	130.00	Open	0.68	1057.45	1057.45	0.00	0.00
6328	P-2484	11.00	6.10	130.00	Open	-0.20	1218.25	1218.25	0.00	0.00
6330	P-2485	11.00	6.10	130.00	Open	0.08	1058.68	1058.68	0.00	0.00
6333	P-2486	11.00	6.10	130.00	Open	0.20	993.44	993.44	0.00	0.00
6336	P-2487	11.00	6.10	130.00	Open	1.68	1057.46	1057.46	0.00	0.00
6339	P-2488	11.00	6.10	130.00	Open	0.08	1058.65	1058.65	0.00	0.00
6342	P-2489	11.00	6.10	130.00	Open	0.20	1216.88	1216.88	0.00	0.00
6344	P-2490	11.00	6.10	130.00	Open	-0.48	1061.62	1061.62	0.00	0.00
6346	P-2491	11.00	6.10	130.00	Open	0.68	1059.72	1059.72	0.00	0.00
6348	P-2492	11.00	6.10	130.00	Open	1.28	1057.47	1057.47	0.00	0.00
6351	P-2493	11.00	6.10	130.00	Open	0.48	1059.53	1059.53	0.00	0.00
6354	P-2494	11.00	6.10	130.00	Open	-0.28	1061.62	1061.62	0.00	0.00
6357	P-2495	11.00	6.10	130.00	Open	-0.88	1058.95	1058.95	0.00	0.00
6359	P-2496	11.00	6.10	130.00	Open	-1.28	1063.71	1063.71	0.00	0.00
6361	P-2497	11.00	6.10	130.00	Open	2.09	1057.47	1057.47	0.00	0.00
6363	P-2498	11.00	6.10	130.00	Open	-0.08	1063.38	1063.38	0.00	0.00
6366	P-2499	11.00	6.10	130.00	Open	-0.08	1061.61	1061.61	0.00	0.00
6369	P-2500	12.00	6.10	130.00	Open	0.20	993.44	993.44	0.00	0.00
6371	P-2501	11.00	6.10	130.00	Open	-0.20	1217.72	1217.72	0.00	0.00
6373	P-2502	11.00	6.10	130.00	Open	0.28	1057.42	1057.42	0.00	0.00
6376	P-2503	11.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
6378	P-2504	11.00	6.10	130.00	Open	0.48	1057.42	1057.42	0.00	0.00
6380	P-2505	12.00	6.10	130.00	Open	0.28	1060.09	1060.09	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6383	P-2506	12.00	6.10	130.00	Open	-0.29	1218.15	1218.15	0.00	0.00
6385	P-2507	12.00	6.10	130.00	Open	0.08	1060.94	1060.94	0.00	0.00
6387	P-2508	12.00	6.10	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
6390	P-2509	12.00	6.10	130.00	Open	-0.08	1059.35	1059.35	0.00	0.00
6393	P-2510	12.00	6.10	130.00	Open	-0.08	1061.62	1061.62	0.00	0.00
6395	P-2511	12.00	6.10	130.00	Open	-1.08	1061.62	1061.62	0.00	0.00
6397	P-2512	12.00	6.10	130.00	Open	-0.08	1062.34	1062.34	0.00	0.00
6399	P-2513	12.00	6.10	130.00	Open	-0.48	1064.87	1064.87	0.00	0.00
6402	P-2514	12.00	6.10	130.00	Open	0.20	1218.47	1218.47	0.00	0.00
6404	P-2515	12.00	6.10	130.00	Open	-0.28	1061.85	1061.85	0.00	0.00
6407	P-2516	12.00	6.10	130.00	Open	0.48	1063.74	1063.74	0.00	0.00
6409	P-2517	12.00	6.10	130.00	Open	-0.48	1063.30	1063.30	0.00	0.00
6411	P-2518	12.00	6.10	130.00	Open	-0.48	1064.21	1064.21	0.00	0.00
6414	P-2519	12.00	6.10	130.00	Open	-0.08	1061.62	1061.62	0.00	0.00
6416	P-2520	12.00	6.10	130.00	Open	-0.28	1064.92	1064.92	0.00	0.00
6418	P-2521	12.00	6.10	130.00	Open	-0.28	1063.39	1063.39	0.00	0.00
6421	P-2522	12.00	6.10	130.00	Open	-0.28	1060.62	1060.62	0.00	0.00
6423	P-2523	12.00	6.10	130.00	Open	-0.08	1061.05	1061.05	0.00	0.00
6425	P-2524	12.00	6.10	130.00	Open	0.08	1064.87	1064.87	0.00	0.00
6428	P-2525	12.00	6.10	130.00	Open	0.28	1061.10	1061.10	0.00	0.00
6430	P-2526	12.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
6432	P-2527	12.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6435	P-2528	12.00	6.10	130.00	Open	-0.37	1218.15	1218.15	0.00	0.00
6438	P-2529	12.00	6.10	130.00	Open	0.20	1218.32	1218.32	0.00	0.00
6441	P-2530	12.00	6.10	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
6443	P-2531	12.00	6.10	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
6445	P-2532	12.00	6.10	130.00	Open	-0.48	1064.83	1064.83	0.00	0.00
6447	P-2533	12.00	6.10	130.00	Open	-1.28	1061.63	1061.63	0.00	0.00
6449	P-2534	12.00	6.10	130.00	Open	-0.48	1061.62	1061.62	0.00	0.00
6451	P-2535	12.00	6.10	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
6454	P-2536	12.00	6.10	130.00	Open	0.08	1062.90	1062.90	0.00	0.00
6457	P-2537	12.00	6.10	130.00	Open	0.08	1062.15	1062.15	0.00	0.00
6459	P-2538	12.00	6.10	130.00	Open	0.68	1057.67	1057.67	0.00	0.00
6461	P-2539	12.00	6.10	130.00	Open	-0.26	1322.98	1322.98	0.00	0.00
6463	P-2540	12.00	6.10	130.00	Open	0.20	1218.58	1218.58	0.00	0.00
6465	P-2541	12.00	6.10	130.00	Open	0.08	1058.34	1058.34	0.00	0.00
6468	P-2542	12.00	6.10	130.00	Open	-0.28	1058.95	1058.95	0.00	0.00
6470	P-2543	12.00	6.10	130.00	Open	1.08	1057.49	1057.49	0.00	0.00
6473	P-2544	12.00	6.10	130.00	Open	-0.68	1063.37	1063.37	0.00	0.00
6475	P-2545	12.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
6478	P-2546	12.00	6.10	130.00	Open	-0.08	1064.10	1064.10	0.00	0.00
6480	P-2547	12.00	6.10	130.00	Open	1.08	1057.76	1057.76	0.00	0.00
6482	P-2548	12.00	6.10	130.00	Open	0.08	1064.61	1064.61	0.00	0.00
6485	P-2549	12.00	6.10	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
6487	P-2550	12.00	6.10	130.00	Open	0.20	1218.37	1218.37	0.00	0.00
6489	P-2551	12.00	6.10	130.00	Open	0.48	1057.92	1057.92	0.00	0.00
6491	P-2552	12.00	6.10	130.00	Open	0.68	1057.81	1057.81	0.00	0.00
6494	P-2553	12.00	6.10	130.00	Open	0.08	1062.37	1062.37	0.00	0.00
6496	P-2554	12.00	6.10	130.00	Open	0.08	1058.49	1058.49	0.00	0.00
6498	P-2555	12.00	6.10	130.00	Open	0.20	1217.75	1217.75	0.00	0.00
6501	P-2556	12.00	6.10	130.00	Open	1.48	1058.37	1058.37	0.00	0.00
6503	P-2557	12.00	6.10	130.00	Open	0.68	1057.82	1057.82	0.00	0.00
6505	P-2558	12.00	6.10	130.00	Open	0.28	1057.46	1057.46	0.00	0.00
6508	P-2559	12.00	6.10	130.00	Open	-0.11	1322.97	1322.97	0.00	0.00
6510	P-2560	12.00	6.10	130.00	Open	-0.08	1062.20	1062.20	0.00	0.00
6513	P-2561	12.00	6.10	130.00	Open	-0.48	1062.02	1062.02	0.00	0.00
6515	P-2562	12.00	6.10	130.00	Open	0.48	1064.60	1064.60	0.00	0.00
6518	P-2563	12.00	6.10	130.00	Open	0.68	1057.79	1057.79	0.00	0.00
6521	P-2564	12.00	6.10	130.00	Open	0.28	1061.04	1061.04	0.00	0.00
6523	P-2565	12.00	6.10	130.00	Open	1.28	1059.16	1059.16	0.00	0.00
6525	P-2566	12.00	6.10	130.00	Open	1.48	1059.35	1059.35	0.00	0.00
6527	P-2567	12.00	6.10	130.00	Open	0.20	1218.65	1218.65	0.00	0.00
6529	P-2568	12.00	6.10	130.00	Open	0.48	1059.43	1059.43	0.00	0.00
6532	P-2569	12.00	6.10	130.00	Open	0.20	1216.06	1216.06	0.00	0.00
6534	P-2570	12.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
6536	P-2571	12.00	6.10	130.00	Open	-0.48	1061.85	1061.85	0.00	0.00
6539	P-2572	12.00	6.10	130.00	Open	-0.68	1064.86	1064.86	0.00	0.00
6542	P-2573	12.00	6.10	130.00	Open	0.68	1062.86	1062.86	0.00	0.00
6544	P-2574	12.00	6.10	130.00	Open	-0.29	1215.66	1215.66	0.00	0.00
6546	P-2575	13.00	6.10	130.00	Open	-0.48	1061.61	1061.61	0.00	0.00
6549	P-2576	13.00	6.10	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
6552	P-2577	13.00	6.10	130.00	Open	0.28	1057.68	1057.68	0.00	0.00
6555	P-2578	13.00	6.10	130.00	Open	0.48	1058.02	1058.02	0.00	0.00
6558	P-2579	13.00	6.10	130.00	Open	0.28	1057.54	1057.54	0.00	0.00
6561	P-2580	13.00	6.10	130.00	Open	0.48	1057.69	1057.69	0.00	0.00
6564	P-2581	13.00	6.10	130.00	Open	0.08	1057.83	1057.83	0.00	0.00
6566	P-2582	13.00	6.10	130.00	Open	-1.88	1064.12	1064.12	0.00	0.00
6569	P-2583	13.00	6.10	130.00	Open	0.08	1060.81	1060.81	0.00	0.00
6571	P-2584	13.00	6.10	130.00	Open	-0.08	1058.95	1058.95	0.00	0.00
6574	P-2585	13.00	6.10	130.00	Open	0.68	1057.72	1057.72	0.00	0.00
6576	P-2586	13.00	6.10	130.00	Open	-0.68	1059.74	1059.74	0.00	0.00
6578	P-2587	13.00	6.10	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
6581	P-2588	13.00	6.10	130.00	Open	0.28	1059.98	1059.98	0.00	0.00
6584	P-2589	13.00	6.10	130.00	Open	0.28	1058.24	1058.24	0.00	0.00
6586	P-2590	13.00	6.10	130.00	Open	-0.20	1218.12	1218.12	0.00	0.00
6588	P-2591	13.00	6.10	130.00	Open	0.08	1058.39	1058.39	0.00	0.00
6590	P-2592	13.00	6.10	130.00	Open	0.08	1057.84	1057.84	0.00	0.00
6592	P-2593	13.00	6.10	130.00	Open	0.28	1058.65	1058.65	0.00	0.00
6595	P-2594	13.00	6.10	130.00	Open	-0.28	1059.29	1059.29	0.00	0.00
6597	P-2595	13.00	6.10	130.00	Open	0.48	1057.42	1057.42	0.00	0.00
6599	P-2596	13.00	6.10	130.00	Open	0.20	1218.31	1218.31	0.00	0.00
6602	P-2597	13.00	6.10	130.00	Open	0.08	1057.85	1057.85	0.00	0.00
6604	P-2598	13.00	6.10	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
6607	P-2599	13.00	6.10	130.00	Open	-0.08	1062.12	1062.12	0.00	0.00
6610	P-2600	13.00	6.10	130.00	Open	-0.28	1062.34	1062.34	0.00	0.00
6612	P-2601	13.00	6.10	130.00	Open	-0.08	1058.75	1058.75	0.00	0.00
6615	P-2602	13.00	6.10	130.00	Open	0.28	1059.89	1059.89	0.00	0.00
6617	P-2603	13.00	6.10	130.00	Open	1.08	1057.83	1057.83	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6619	P-2604	13.00	6.10	130.00	Open	0.08	1058.64	1058.64	0.00	0.00
6622	P-2605	13.00	6.10	130.00	Open	0.48	1060.08	1060.08	0.00	0.00
6625	P-2606	13.00	6.10	130.00	Open	-1.28	1059.27	1059.27	0.00	0.00
6628	P-2607	13.00	6.10	130.00	Open	0.68	1059.22	1059.22	0.00	0.00
6631	P-2608	13.00	6.10	130.00	Open	0.08	1058.63	1058.63	0.00	0.00
6634	P-2609	13.00	6.10	130.00	Open	0.28	1057.02	1057.02	0.00	0.00
6636	P-2610	13.00	6.10	130.00	Open	0.08	1061.01	1061.01	0.00	0.00
6638	P-2611	13.00	6.10	130.00	Open	0.48	1064.62	1064.62	0.00	0.00
6640	P-2612	13.00	6.10	130.00	Open	1.48	1058.17	1058.17	0.00	0.00
6643	P-2613	13.00	6.10	130.00	Open	0.08	1064.61	1064.61	0.00	0.00
6646	P-2614	13.00	6.10	130.00	Open	0.20	1218.14	1218.14	0.00	0.00
6648	P-2615	13.00	6.10	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
6651	P-2616	13.00	6.10	130.00	Open	0.08	1062.65	1062.65	0.00	0.00
6653	P-2617	13.00	6.10	130.00	Open	-0.48	1064.62	1064.62	0.00	0.00
6655	P-2618	13.00	6.10	130.00	Open	-0.20	1218.05	1218.05	0.00	0.00
6657	P-2619	13.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6659	P-2620	13.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
6661	P-2621	13.00	6.10	130.00	Open	-0.88	1064.60	1064.60	0.00	0.00
6664	P-2622	13.00	6.10	130.00	Open	0.28	1064.12	1064.12	0.00	0.00
6667	P-2623	13.00	6.10	130.00	Open	0.08	1057.85	1057.85	0.00	0.00
6670	P-2624	13.00	6.10	130.00	Open	0.48	1064.85	1064.85	0.00	0.00
6672	P-2625	13.00	6.10	130.00	Open	0.08	1058.02	1058.02	0.00	0.00
6674	P-2626	13.00	6.10	130.00	Open	0.48	1058.99	1058.99	0.00	0.00
6676	P-2627	13.00	6.10	130.00	Open	-0.88	1064.60	1064.60	0.00	0.00
6679	P-2628	13.00	6.10	130.00	Open	0.08	1059.72	1059.72	0.00	0.00
6681	P-2629	13.00	6.10	130.00	Open	0.88	1057.93	1057.93	0.00	0.00
6683	P-2630	14.00	6.10	130.00	Open	0.28	1057.88	1057.88	0.00	0.00
6686	P-2631	14.00	6.10	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
6689	P-2632	14.00	6.10	130.00	Open	-0.68	1063.38	1063.38	0.00	0.00
6692	P-2633	14.00	6.10	130.00	Open	-0.08	1062.86	1062.86	0.00	0.00
6694	P-2634	14.00	6.10	130.00	Open	1.88	1061.61	1061.61	0.00	0.00
6697	P-2635	14.00	6.10	130.00	Open	0.08	1057.83	1057.83	0.00	0.00
6699	P-2636	14.00	6.10	130.00	Open	0.08	1060.31	1060.31	0.00	0.00
6701	P-2637	14.00	6.10	130.00	Open	0.28	1064.83	1064.83	0.00	0.00
6703	P-2638	14.00	6.10	130.00	Open	0.08	1057.94	1057.94	0.00	0.00
6706	P-2639	14.00	6.10	130.00	Open	-0.08	1062.86	1062.86	0.00	0.00
6708	P-2640	14.00	6.10	130.00	Open	-0.88	1064.83	1064.83	0.00	0.00
6710	P-2641	14.00	6.10	130.00	Open	0.08	1059.91	1059.91	0.00	0.00
6712	P-2642	14.00	6.10	130.00	Open	0.48	1059.96	1059.96	0.00	0.00
6715	P-2643	14.00	6.10	130.00	Open	-0.68	1061.95	1061.95	0.00	0.00
6718	P-2644	14.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
6720	P-2645	14.00	6.10	130.00	Open	-0.20	1218.07	1218.07	0.00	0.00
6722	P-2646	14.00	6.10	130.00	Open	-0.48	1062.01	1062.01	0.00	0.00
6724	P-2647	14.00	6.10	130.00	Open	0.68	1060.91	1060.91	0.00	0.00
6727	P-2648	14.00	6.10	130.00	Open	-0.28	1063.38	1063.38	0.00	0.00
6730	P-2649	14.00	6.10	130.00	Open	0.28	1058.14	1058.14	0.00	0.00
6732	P-2650	14.00	6.10	130.00	Open	0.20	1218.42	1218.42	0.00	0.00
6734	P-2651	14.00	6.10	130.00	Open	0.28	1060.78	1060.78	0.00	0.00
6736	P-2652	14.00	6.10	130.00	Open	1.28	1058.62	1058.62	0.00	0.00
6738	P-2653	14.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
6741	P-2654	14.00	6.10	130.00	Open	0.48	1064.16	1064.16	0.00	0.00
6743	P-2655	14.00	6.10	130.00	Open	0.28	1057.76	1057.76	0.00	0.00
6746	P-2656	14.00	6.10	130.00	Open	-1.08	981.48	981.48	0.00	0.00
7228	P-2657	11.00	8.00	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
7230	P-2658	11.00	8.00	130.00	Open	26.47	1218.14	1218.14	0.00	0.00
7231	P-2659	11.00	8.00	130.00	Open	0.28	1064.12	1064.12	0.00	0.00
7233	P-2660	11.00	8.00	130.00	Open	0.08	1058.14	1058.14	0.00	0.00
7236	P-2661	11.00	8.00	130.00	Open	0.68	1057.84	1057.84	0.00	0.00
7238	P-2662	11.00	8.00	130.00	Open	2.04	873.78	873.78	0.00	0.00
7239	P-2663	11.00	8.00	130.00	Open	1.76	1064.11	1064.11	0.00	0.00
7240	P-2664	11.00	8.00	130.00	Open	0.88	1064.62	1064.62	0.00	0.00
7242	P-2665	11.00	8.00	130.00	Open	0.20	1217.76	1217.76	0.00	0.00
7245	P-2666	11.00	8.00	130.00	Open	7.40	1064.12	1064.12	0.00	0.00
7247	P-2667	11.00	8.00	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
7250	P-2668	11.00	8.00	130.00	Open	-0.08	1061.38	1061.38	0.00	0.00
7252	P-2669	11.00	8.00	130.00	Open	-26.69	1060.01	1060.01	0.00	0.00
7253	P-2670	11.00	8.00	130.00	Open	-0.08	1059.93	1059.93	0.00	0.00
7256	P-2671	11.00	8.00	130.00	Open	-0.96	1059.53	1059.53	0.00	0.00
7257	P-2672	12.00	8.00	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7259	P-2673	12.00	8.00	130.00	Open	8.94	1060.45	1060.45	0.00	0.00
7261	P-2675	12.00	8.00	130.00	Open	0.20	988.99	988.99	0.00	0.00
7264	P-2676	13.00	8.00	130.00	Open	1.84	1060.83	1060.83	0.00	0.00
7265	P-2677	13.00	8.00	130.00	Open	-0.68	1057.41	1057.41	0.00	0.00
7267	P-2678	13.00	8.00	130.00	Open	34.98	1064.87	1064.87	0.00	0.00
7270	P-2679	13.00	8.00	130.00	Open	21.54	1058.77	1058.77	0.00	0.00
7271	P-2680	13.00	8.00	130.00	Open	4.71	1059.93	1059.93	0.00	0.00
7273	P-2681	13.00	8.00	130.00	Open	1.16	1063.37	1063.37	0.00	0.00
7274	P-2682	13.00	8.00	130.00	Open	11.57	1061.62	1061.62	0.00	0.00
7275	P-2683	13.00	8.00	130.00	Open	8.80	1063.72	1063.72	0.00	0.00
7276	P-2684	13.00	8.00	130.00	Open	4.68	1063.30	1063.30	0.00	0.00
7278	P-2685	13.00	8.00	130.00	Open	-0.08	1059.82	1059.82	0.00	0.00
7281	P-2686	13.00	8.00	130.00	Open	4.25	1322.91	1322.91	0.00	0.00
7282	P-2687	13.00	8.00	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
7285	P-2688	14.00	8.00	130.00	Open	1.16	1064.21	1064.21	0.00	0.00
7286	P-2689	14.00	8.00	130.00	Open	-1.36	1064.21	1064.21	0.00	0.00
7287	P-2690	14.00	8.00	130.00	Open	-1.08	1059.82	1059.82	0.00	0.00
7290	P-2691	14.00	8.00	130.00	Open	3.75	1060.83	1060.83	0.00	0.00
7291	P-2692	14.00	8.00	130.00	Open	4.77	1217.75	1217.75	0.00	0.00
7292	P-2693	15.00	8.00	130.00	Open	-40.52	1063.90	1063.90	0.00	0.00
7293	P-2694	15.00	8.00	130.00	Open	3.12	1218.15	1218.15	0.00	0.00
7294	P-2695	15.00	8.00	130.00	Open	-0.08	1059.94	1059.94	0.00	0.00
7296	P-2696	15.00	8.00	130.00	Open	0.28	981.48	981.48	0.00	0.00
7298	P-2697	15.00	8.00	130.00	Open	-21.23	1061.63	1061.63	0.00	0.00
7300	P-2698	15.00	8.00	130.00	Open	0.08	1059.46	1059.46	0.00	0.00
7302	P-2699	15.00	8.00	130.00	Open	92.13	1061.66	1061.66	0.00	0.00
7303	P-2700	16.00	8.00	130.00	Open	3.74	1216.97	1216.97	0.00	0.00
7304	P-2701	17.00	8.00	130.00	Open	1.56	1064.86	1064.86	0.00	0.00
7306	P-2702	16.00	8.00	130.00	Open	12.59	1060.80	1060.80	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7307	P-2703	16.00	8.00	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
7312	P-2705	17.00	8.00	130.00	Open	3.20	1064.60	1064.60	0.00	0.00
7313	P-2706	17.00	8.00	130.00	Open	3.07	1063.58	1063.58	0.00	0.00
7314	P-2707	17.00	8.00	130.00	Open	3.63	1061.05	1061.05	0.00	0.00
7315	P-2708	17.00	8.00	130.00	Open	0.94	1218.15	1218.15	0.00	0.00
7317	P-2709	17.00	8.00	130.00	Open	14.35	993.44	993.44	0.00	0.00
7318	P-2710	17.00	8.00	130.00	Open	5.21	1057.46	1057.46	0.00	0.00
7319	P-2711	18.00	8.00	130.00	Open	-0.08	1057.79	1057.79	0.00	0.00
7321	P-2712	18.00	8.00	130.00	Open	0.91	1064.63	1064.63	0.00	0.00
7322	P-2713	18.00	8.00	130.00	Open	4.80	1063.37	1063.37	0.00	0.00
7324	P-2714	18.00	8.00	130.00	Open	13.30	1059.95	1059.95	0.00	0.00
7326	P-2715	18.00	8.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
7328	P-2716	18.00	8.00	130.00	Open	5.71	1057.83	1057.83	0.00	0.00
7330	P-2717	18.00	8.00	130.00	Open	-1.11	1059.66	1059.66	0.00	0.00
7331	P-2718	18.00	8.00	130.00	Open	-1.36	1061.63	1061.63	0.00	0.00
7332	P-2719	18.00	8.00	130.00	Open	10.99	1063.38	1063.38	0.00	0.00
7333	P-2720	19.00	8.00	130.00	Open	7.33	1057.42	1057.42	0.00	0.00
7334	P-2721	19.00	8.00	130.00	Open	6.40	1217.75	1217.75	0.00	0.00
7335	P-2722	30.00	8.00	130.00	Open	-0.48	1061.32	1061.32	0.00	0.00
7338	P-2723	19.00	8.00	130.00	Open	0.08	1063.37	1063.37	0.00	0.00
7341	P-2724	20.00	8.00	130.00	Open	-0.08	1059.82	1059.82	0.00	0.00
7344	P-2725	21.00	8.00	130.00	Open	0.48	1058.74	1058.74	0.00	0.00
7347	P-2726	21.00	8.00	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
7349	P-2727	21.00	8.00	130.00	Open	0.08	1057.87	1057.87	0.00	0.00
7351	P-2728	21.00	8.00	130.00	Open	-1.12	988.98	988.98	0.00	0.00
7352	P-2729	21.00	8.00	130.00	Open	-52.28	1061.04	1061.04	0.00	0.00
7353	P-2730	22.00	8.00	130.00	Open	-8.23	1057.42	1057.42	0.00	0.00
7354	P-2731	22.00	8.00	130.00	Open	30.45	1057.54	1057.54	0.00	0.00
7355	P-2732	24.00	8.00	130.00	Open	-38.72	1060.89	1060.89	0.00	0.00
7356	P-2733	23.00	8.00	130.00	Open	0.08	1064.87	1064.87	0.00	0.00
7358	P-2734	27.00	8.00	130.00	Open	9.37	1060.85	1060.85	0.00	0.00
7360	P-2735	24.00	8.00	130.00	Open	2.79	1061.02	1061.02	0.00	0.00
7361	P-2736	24.00	8.00	130.00	Open	-61.36	1058.71	1058.71	0.00	0.00
7362	P-2737	24.00	8.00	130.00	Open	60.72	1058.34	1058.34	0.00	0.00
7363	P-2738	24.00	8.00	130.00	Open	2.76	1059.43	1059.43	0.00	0.00
7364	P-2739	25.00	8.00	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
7366	P-2740	25.00	8.00	130.00	Open	81.02	1058.82	1058.81	0.00	0.00
7367	P-2741	25.00	8.00	130.00	Open	1.51	1064.62	1064.62	0.00	0.00
7370	P-2742	25.00	8.00	130.00	Open	-65.64	1057.84	1057.85	0.00	0.00
7371	P-2743	26.00	8.00	130.00	Open	45.51	1063.95	1063.95	0.00	0.00
7372	P-2744	26.00	8.00	130.00	Open	2.24	1061.62	1061.62	0.00	0.00
7373	P-2745	26.00	8.00	130.00	Open	10.12	1064.12	1064.12	0.00	0.00
7375	P-2746	26.00	8.00	130.00	Open	0.48	1058.72	1058.72	0.00	0.00
7377	P-2747	27.00	8.00	130.00	Open	18.47	1063.37	1063.37	0.00	0.00
7379	P-2748	27.00	8.00	130.00	Open	0.08	1059.93	1059.93	0.00	0.00
7382	P-2749	28.00	8.00	130.00	Open	0.63	1058.72	1058.72	0.00	0.00
7383	P-2750	28.00	8.00	130.00	Open	-0.29	1218.03	1218.03	0.00	0.00
7385	P-2751	28.00	8.00	130.00	Open	1.91	1062.01	1062.01	0.00	0.00
7387	P-2752	28.00	8.00	130.00	Open	-6.87	988.99	988.99	0.00	0.00
7388	P-2753	29.00	8.00	130.00	Open	0.28	1060.79	1060.79	0.00	0.00
7390	P-2754	29.00	8.00	130.00	Open	7.24	1059.95	1059.95	0.00	0.00
7391	P-2755	29.00	8.00	130.00	Open	-20.71	1060.11	1060.11	0.00	0.00
7392	P-2756	29.00	8.00	130.00	Open	3.20	1059.72	1059.72	0.00	0.00
7393	P-2757	29.00	8.00	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
7396	P-2758	29.00	8.00	130.00	Open	9.60	1058.71	1058.71	0.00	0.00
7398	P-2759	30.00	8.00	130.00	Open	5.56	1058.95	1058.95	0.00	0.00
7399	P-2760	30.00	8.00	130.00	Open	0.48	1059.76	1059.76	0.00	0.00
7401	P-2761	30.00	8.00	130.00	Open	0.28	1058.64	1058.64	0.00	0.00
7403	P-2762	30.00	8.00	130.00	Open	0.16	1059.82	1059.82	0.00	0.00
7404	P-2763	31.00	8.00	130.00	Open	-5.84	1058.76	1058.76	0.00	0.00
7405	P-2764	31.00	8.00	130.00	Open	-16.32	1064.85	1064.85	0.00	0.00
7406	P-2765	31.00	8.00	130.00	Open	6.00	1218.03	1218.03	0.00	0.00
7407	P-2766	31.00	8.00	130.00	Open	2.52	1064.63	1064.63	0.00	0.00
7411	P-2768	32.00	8.00	130.00	Open	7.97	1061.61	1061.61	0.00	0.00
7412	P-2769	32.00	8.00	130.00	Open	16.33	1057.69	1057.69	0.00	0.00
7414	P-2770	32.00	8.00	130.00	Open	1.23	1064.63	1064.63	0.00	0.00
7415	P-2771	32.00	8.00	130.00	Open	0.08	1057.87	1057.87	0.00	0.00
7418	P-2772	32.00	8.00	130.00	Open	0.08	1060.36	1060.36	0.00	0.00
7420	P-2773	33.00	8.00	130.00	Open	1.26	1064.62	1064.62	0.00	0.00
7421	P-2774	34.00	8.00	130.00	Open	1.44	1064.21	1064.21	0.00	0.00
7423	P-2775	35.00	8.00	130.00	Open	0.63	1064.87	1064.87	0.00	0.00
7424	P-2776	35.00	8.00	130.00	Open	64.31	1062.12	1062.12	0.00	0.00
7425	P-2777	36.00	8.00	130.00	Open	6.67	1060.83	1060.83	0.00	0.00
7427	P-2778	36.00	8.00	130.00	Open	15.64	1064.62	1064.62	0.00	0.00
7428	P-2779	39.00	8.00	130.00	Open	30.59	1218.28	1218.28	0.00	0.00
7430	P-2780	36.00	8.00	130.00	Open	16.10	1064.12	1064.12	0.00	0.00
7432	P-2781	38.00	8.00	130.00	Open	8.04	981.48	981.48	0.00	0.00
7433	P-2782	38.00	8.00	130.00	Open	-5.66	1218.02	1218.02	0.00	0.00
7435	P-2783	38.00	8.00	130.00	Open	-46.54	1061.02	1061.02	0.00	0.00
7436	P-2784	38.00	8.00	130.00	Open	0.63	1064.12	1064.12	0.00	0.00
7438	P-2785	38.00	8.00	130.00	Open	10.11	1064.12	1064.12	0.00	0.00
7440	P-2786	38.00	8.00	130.00	Open	11.81	1064.62	1064.62	0.00	0.00
7441	P-2787	38.00	8.00	130.00	Open	2.26	1218.03	1218.03	0.00	0.00
7442	P-2788	38.00	8.00	130.00	Open	7.75	1063.37	1063.37	0.00	0.00
7443	P-2789	39.00	8.00	130.00	Open	0.60	1218.03	1218.03	0.00	0.00
7444	P-2790	40.00	8.00	130.00	Open	5.48	1063.37	1063.37	0.00	0.00
7445	P-2791	40.00	8.00	130.00	Open	-1.64	1059.49	1059.49	0.00	0.00
7446	P-2792	40.00	8.00	130.00	Open	1.64	1064.62	1064.62	0.00	0.00
7447	P-2793	40.00	8.00	130.00	Open	0.77	1057.68	1057.68	0.00	0.00
7449	P-2794	42.00	8.00	130.00	Open	-143.41	1059.92	1059.94	0.02	0.00
7451	P-2795	41.00	8.00	130.00	Open	5.33	1060.84	1060.84	0.00	0.00
7453	P-2796	41.00	8.00	130.00	Open	65.48	1061.22	1061.21	0.00	0.00
7455	P-2797	42.00	8.00	130.00	Open	0.28	1059.36	1059.36	0.00	0.00
7457	P-2798	42.00	8.00	130.00	Open	14.22	1060.84	1060.84	0.00	0.00
7458	P-2799	42.00	8.00	130.00	Open	9.80	1064.87	1064.87	0.00	0.00
7459	P-2800	44.00	8.00	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
7462	P-2801	43.00	8.00	130.00	Open	-8.48	1057.79	1057.79	0.00	0.00
7464	P-2802	43.00	8.00	130.00	Open	-53.19	1061.04	1061.05	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7466	P-2803	43.00	8.00	130.00	Open	-44.07	1061.01	1061.01	0.00	0.00
7467	P-2804	44.00	8.00	130.00	Open	4.40	1064.62	1064.62	0.00	0.00
7468	P-2805	44.00	8.00	130.00	Open	3.35	1059.53	1059.53	0.00	0.00
7470	P-2806	45.00	8.00	130.00	Open	0.69	1060.01	1060.01	0.00	0.00
7471	P-2807	45.00	8.00	130.00	Open	12.23	1063.37	1063.37	0.00	0.00
7472	P-2808	45.00	8.00	130.00	Open	0.48	1059.96	1059.96	0.00	0.00
7475	P-2809	47.00	8.00	130.00	Open	3.28	1322.91	1322.91	0.00	0.00
7477	P-2810	48.00	8.00	130.00	Open	0.56	1061.32	1061.32	0.00	0.00
7478	P-2811	47.00	8.00	130.00	Open	5.03	1064.61	1064.60	0.00	0.00
7480	P-2812	47.00	8.00	130.00	Open	2.59	1059.94	1059.94	0.00	0.00
7482	P-2813	47.00	8.00	130.00	Open	21.66	1063.38	1063.38	0.00	0.00
7483	P-2814	47.00	8.00	130.00	Open	4.06	1059.53	1059.53	0.00	0.00
7484	P-2815	48.00	8.00	130.00	Open	0.96	1057.76	1057.76	0.00	0.00
7485	P-2816	49.00	8.00	130.00	Open	0.20	1216.97	1216.97	0.00	0.00
7487	P-2817	50.00	8.00	130.00	Open	-5.66	967.43	967.43	0.00	0.00
7488	P-2818	50.00	8.00	130.00	Open	33.42	1059.98	1059.97	0.00	0.00
7490	P-2819	59.00	8.00	130.00	Open	3.10	1059.93	1059.93	0.00	0.00
7492	P-2820	50.00	8.00	130.00	Open	29.40	1060.82	1060.82	0.00	0.00
7494	P-2821	50.00	8.00	130.00	Open	1.59	1061.85	1061.85	0.00	0.00
7495	P-2822	50.00	8.00	130.00	Open	83.29	1058.75	1058.74	0.01	0.00
7496	P-2823	51.00	8.00	130.00	Open	-7.92	1057.79	1057.79	0.00	0.00
7498	P-2824	51.00	8.00	130.00	Open	79.55	1058.56	1058.55	0.01	0.00
7499	P-2825	51.00	8.00	130.00	Open	8.75	1322.92	1322.92	0.00	0.00
7500	P-2826	52.00	8.00	130.00	Open	-16.01	1057.40	1057.40	0.00	0.00
7502	P-2827	52.00	8.00	130.00	Open	-1.76	1057.40	1057.40	0.00	0.00
7503	P-2828	53.00	8.00	130.00	Open	19.32	1057.47	1057.47	0.00	0.00
7504	P-2829	53.00	8.00	130.00	Open	4.32	1058.17	1058.17	0.00	0.00
7506	P-2830	54.00	8.00	130.00	Open	-21.26	1057.81	1057.82	0.00	0.00
7507	P-2831	54.00	8.00	130.00	Open	0.43	1059.46	1059.46	0.00	0.00
7509	P-2832	54.00	8.00	130.00	Open	0.48	1057.80	1057.80	0.00	0.00
7512	P-2833	71.00	8.00	130.00	Open	-58.47	1056.91	1056.92	0.01	0.00
7513	P-2834	54.00	8.00	130.00	Open	5.56	1057.76	1057.76	0.00	0.00
7515	P-2835	57.00	8.00	130.00	Open	14.62	1057.84	1057.84	0.00	0.00
7516	P-2836	55.00	8.00	130.00	Open	-0.08	1058.76	1058.76	0.00	0.00
7518	P-2837	55.00	8.00	130.00	Open	0.08	1064.11	1064.11	0.00	0.00
7521	P-2838	56.00	8.00	130.00	Open	12.84	967.36	967.36	0.00	0.00
7522	P-2839	57.00	8.00	130.00	Open	4.09	1061.85	1061.85	0.00	0.00
7523	P-2840	57.00	8.00	130.00	Open	0.08	1064.12	1064.12	0.00	0.00
7525	P-2841	58.00	8.00	130.00	Open	10.28	1064.62	1064.62	0.00	0.00
7527	P-2842	58.00	8.00	130.00	Open	-19.36	1057.40	1057.40	0.00	0.00
7530	P-2843	58.00	8.00	130.00	Open	-0.83	1057.41	1057.41	0.00	0.00
7531	P-2844	58.00	8.00	130.00	Open	8.42	1216.97	1216.97	0.00	0.00
7532	P-2845	59.00	8.00	130.00	Open	1.16	1058.75	1058.75	0.00	0.00
7534	P-2846	59.00	8.00	130.00	Open	-14.36	1061.62	1061.62	0.00	0.00
7535	P-2847	60.00	8.00	130.00	Open	0.20	1218.15	1218.15	0.00	0.00
7537	P-2848	60.00	8.00	130.00	Open	-72.39	1057.93	1057.94	0.01	0.00
7539	P-2849	60.00	8.00	130.00	Open	10.68	1216.97	1216.97	0.00	0.00
7540	P-2850	61.00	8.00	130.00	Open	20.41	1063.39	1063.39	0.00	0.00
7542	P-2851	62.00	8.00	130.00	Open	0.99	1057.41	1057.41	0.00	0.00
7544	P-2852	62.00	8.00	130.00	Open	6.48	1061.85	1061.85	0.00	0.00
7545	P-2853	63.00	8.00	130.00	Open	0.08	1064.11	1064.11	0.00	0.00
7547	P-2854	63.00	8.00	130.00	Open	-23.63	1061.61	1061.61	0.00	0.00
7549	P-2855	64.00	8.00	130.00	Open	-9.17	1059.94	1059.94	0.00	0.00
7550	P-2856	65.00	8.00	130.00	Open	-46.94	1061.61	1061.61	0.00	0.00
7552	P-2857	65.00	8.00	130.00	Open	61.96	1061.11	1061.10	0.01	0.00
7554	P-2858	69.00	8.00	130.00	Open	3.50	1064.60	1064.60	0.00	0.00
7555	P-2859	65.00	8.00	130.00	Open	1.36	1060.08	1060.08	0.00	0.00
7556	P-2860	66.00	8.00	130.00	Open	0.63	1057.87	1057.87	0.00	0.00
7557	P-2861	67.00	8.00	130.00	Open	7.92	1064.62	1064.62	0.00	0.00
7558	P-2862	67.00	8.00	130.00	Open	41.03	1060.97	1060.97	0.00	0.00
7560	P-2863	68.00	8.00	130.00	Open	1.79	1059.53	1059.53	0.00	0.00
7562	P-2864	68.00	8.00	130.00	Open	20.49	1059.73	1059.73	0.00	0.00
7563	P-2865	68.00	8.00	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
7564	P-2866	68.00	8.00	130.00	Open	-45.79	1061.02	1061.02	0.00	0.00
7565	P-2867	68.00	8.00	130.00	Open	-4.66	1218.15	1218.15	0.00	0.00
7566	P-2868	68.00	8.00	130.00	Open	66.38	1062.32	1062.31	0.01	0.00
7567	P-2869	70.00	8.00	130.00	Open	-12.02	1061.72	1061.72	0.00	0.00
7568	P-2870	68.00	8.00	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
7570	P-2871	69.00	8.00	130.00	Open	-53.04	1061.04	1061.04	0.01	0.00
7571	P-2872	70.00	8.00	130.00	Open	9.46	1059.97	1059.97	0.00	0.00
7572	P-2873	71.00	8.00	130.00	Open	-4.87	1057.42	1057.42	0.00	0.00
7573	P-2874	71.00	8.00	130.00	Open	0.08	1064.12	1064.12	0.00	0.00
7575	P-2875	72.00	8.00	130.00	Open	39.23	1057.86	1057.86	0.00	0.00
7577	P-2876	72.00	8.00	130.00	Open	-1.95	1058.68	1058.68	0.00	0.00
7579	P-2877	72.00	8.00	130.00	Open	5.06	1064.63	1064.62	0.00	0.00
7580	P-2878	73.00	8.00	130.00	Open	-2.94	1057.96	1057.96	0.00	0.00
7581	P-2879	73.00	8.00	130.00	Open	-4.34	1059.53	1059.53	0.00	0.00
7583	P-2880	74.00	8.00	130.00	Open	-10.29	1057.42	1057.43	0.00	0.00
7584	P-2881	74.00	8.00	130.00	Open	5.03	1057.68	1057.68	0.00	0.00
7585	P-2882	74.00	8.00	130.00	Open	1.16	1060.45	1060.45	0.00	0.00
7586	P-2883	79.00	8.00	130.00	Open	-14.60	1057.82	1057.82	0.00	0.00
7587	P-2884	76.00	8.00	130.00	Open	-0.48	1061.85	1061.85	0.00	0.00
7589	P-2885	76.00	8.00	130.00	Open	10.14	1058.71	1058.71	0.00	0.00
7590	P-2886	76.00	8.00	130.00	Open	6.19	1063.58	1063.58	0.00	0.00
7591	P-2887	77.00	8.00	130.00	Open	21.24	1058.64	1058.64	0.00	0.00
7592	P-2888	77.00	8.00	130.00	Open	7.24	1060.80	1060.80	0.00	0.00
7594	P-2889	78.00	8.00	130.00	Open	-35.32	1060.20	1060.21	0.00	0.00
7596	P-2890	78.00	8.00	130.00	Open	48.38	1217.82	1217.82	0.01	0.00
7598	P-2891	79.00	8.00	130.00	Open	0.38	1060.01	1060.01	0.00	0.00
7599	P-2892	79.00	8.00	130.00	Open	0.08	1063.30	1063.30	0.00	0.00
7601	P-2893	96.00	8.00	130.00	Open	0.37	1218.02	1218.02	0.00	0.00
7603	P-2894	134.00	8.00	130.00	Open	-143.06	1059.85	1059.92	0.07	0.00
7604	P-2895	81.00	8.00	130.00	Open	-6.07	988.99	988.99	0.00	0.00
7605	P-2896	81.00	8.00	130.00	Open	27.11	1057.81	1057.80	0.00	0.00
7607	P-2897	81.00	8.00	130.00	Open	44.50	1061.62	1061.62	0.00	0.00
7609	P-2898	98.00	8.00	130.00	Open	-7.61	1058.69	1058.69	0.00	0.00
7611	P-2899	82.00	8.00	130.00	Open	40.11	1058.78	1058.77	0.00	0.00
7613	P-2900	84.00	8.00	130.00	Open	8.57	1057.40	1057.40	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7615	P-2901	85.00	8.00	130.00	Open	-59.24	1061.05	1061.05	0.01	0.00
7616	P-2902	86.00	8.00	130.00	Open	-0.48	1059.00	1059.00	0.00	0.00
7618	P-2903	86.00	8.00	130.00	Open	-77.10	1058.02	1058.03	0.01	0.00
7620	P-2904	87.00	8.00	130.00	Open	-11.63	1060.08	1060.08	0.00	0.00
7621	P-2905	89.00	8.00	130.00	Open	-13.16	1057.80	1057.80	0.00	0.00
7623	P-2906	89.00	8.00	130.00	Open	1.34	1218.03	1218.03	0.00	0.00
7624	P-2907	90.00	8.00	130.00	Open	127.56	1060.19	1060.16	0.04	0.00
7625	P-2908	95.00	8.00	130.00	Open	30.59	993.49	993.48	0.00	0.00
7626	P-2909	90.00	8.00	130.00	Open	58.00	1058.28	1058.27	0.01	0.00
7627	P-2910	91.00	8.00	130.00	Open	6.66	1057.54	1057.54	0.00	0.00
7628	P-2911	91.00	8.00	130.00	Open	2.72	1218.02	1218.02	0.00	0.00
7630	P-2912	93.00	8.00	130.00	Open	-139.47	1057.61	1057.66	0.04	0.00
7631	P-2913	98.00	8.00	130.00	Open	-10.79	1059.00	1059.00	0.00	0.00
7635	P-2915	94.00	8.00	130.00	Open	0.20	1218.15	1218.15	0.00	0.00
7637	P-2916	94.00	8.00	130.00	Open	25.13	1057.78	1057.78	0.00	0.00
7638	P-2917	94.00	8.00	130.00	Open	0.08	1061.72	1061.72	0.00	0.00
7640	P-2918	95.00	8.00	130.00	Open	-0.15	1061.07	1061.07	0.00	0.00
7642	P-2919	95.00	8.00	130.00	Open	-12.51	1057.83	1057.83	0.00	0.00
7643	P-2920	97.00	8.00	130.00	Open	0.28	1060.83	1060.83	0.00	0.00
7645	P-2921	97.00	8.00	130.00	Open	35.25	1064.88	1064.87	0.00	0.00
7646	P-2922	97.00	8.00	130.00	Open	-21.67	1064.63	1064.63	0.00	0.00
7647	P-2923	98.00	8.00	130.00	Open	2.67	1061.05	1061.05	0.00	0.00
7648	P-2924	99.00	8.00	130.00	Open	35.70	1060.02	1060.01	0.00	0.00
7650	P-2925	100.00	8.00	130.00	Open	96.79	1059.38	1059.36	0.02	0.00
7651	P-2926	100.00	8.00	130.00	Open	9.69	1216.97	1216.97	0.00	0.00
7652	P-2927	100.00	8.00	130.00	Open	0.08	1061.63	1061.63	0.00	0.00
7654	P-2928	102.00	8.00	130.00	Open	4.96	1059.72	1059.72	0.00	0.00
7655	P-2929	102.00	8.00	130.00	Open	31.87	1218.35	1218.35	0.00	0.00
7656	P-2930	103.00	8.00	130.00	Open	9.56	1058.75	1058.75	0.00	0.00
7657	P-2931	103.00	8.00	130.00	Open	0.08	1063.38	1063.38	0.00	0.00
7659	P-2932	106.00	8.00	130.00	Open	-1.76	1060.36	1060.36	0.00	0.00
7660	P-2933	107.00	8.00	130.00	Open	-2.29	1057.41	1057.41	0.00	0.00
7662	P-2934	111.00	8.00	130.00	Open	5.97	1061.05	1061.05	0.00	0.00
7663	P-2935	108.00	8.00	130.00	Open	24.25	1057.49	1057.49	0.00	0.00
7664	P-2936	108.00	8.00	130.00	Open	-3.32	1058.76	1058.76	0.00	0.00
7665	P-2937	134.00	8.00	130.00	Open	0.68	1061.70	1061.70	0.00	0.00
7668	P-2938	109.00	8.00	130.00	Open	12.51	1061.62	1061.62	0.00	0.00
7669	P-2939	110.00	8.00	130.00	Open	72.26	1058.64	1058.62	0.02	0.00
7670	P-2940	115.00	8.00	130.00	Open	2.92	1059.43	1059.43	0.00	0.00
7672	P-2941	118.00	8.00	130.00	Open	-5.67	1060.08	1060.08	0.00	0.00
7673	P-2942	121.00	8.00	130.00	Open	-21.13	1060.85	1060.85	0.00	0.00
7674	P-2943	121.00	8.00	130.00	Open	-2.99	1060.81	1060.81	0.00	0.00
7675	P-2944	119.00	8.00	130.00	Open	15.44	1061.62	1061.62	0.00	0.00
7676	P-2945	120.00	8.00	130.00	Open	-0.48	1063.91	1063.91	0.00	0.00
7678	P-2946	122.00	8.00	130.00	Open	5.22	1061.05	1061.05	0.00	0.00
7679	P-2947	154.00	8.00	130.00	Open	0.83	1059.93	1059.93	0.00	0.00
7680	P-2948	123.00	8.00	130.00	Open	3.32	1058.76	1058.76	0.00	0.00
7681	P-2949	124.00	8.00	130.00	Open	-0.29	988.98	988.98	0.00	0.00
7683	P-2950	126.00	8.00	130.00	Open	0.76	1064.60	1064.60	0.00	0.00
7684	P-2951	126.00	8.00	130.00	Open	3.40	1057.80	1057.80	0.00	0.00
7685	P-2952	126.00	8.00	130.00	Open	-44.83	1061.01	1061.02	0.01	0.00
7686	P-2953	129.00	8.00	130.00	Open	221.38	1059.49	1059.34	0.14	0.00
7687	P-2954	127.00	8.00	130.00	Open	5.56	1060.08	1060.08	0.00	0.00
7689	P-2955	129.00	8.00	130.00	Open	1.88	1061.61	1061.61	0.00	0.00
7691	P-2956	129.00	8.00	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
7694	P-2957	129.00	8.00	130.00	Open	-17.43	1064.85	1064.86	0.00	0.00
7695	P-2958	134.00	8.00	130.00	Open	-24.23	1060.13	1060.13	0.00	0.00
7696	P-2959	136.00	8.00	130.00	Open	-8.76	1057.81	1057.81	0.00	0.00
7697	P-2960	137.00	8.00	130.00	Open	21.98	1064.87	1064.86	0.00	0.00
7698	P-2961	137.00	8.00	130.00	Open	16.42	967.37	967.37	0.00	0.00
7700	P-2962	138.00	8.00	130.00	Open	5.56	1058.69	1058.69	0.00	0.00
7702	P-2963	139.00	8.00	130.00	Open	8.30	1218.15	1218.15	0.00	0.00
7703	P-2964	139.00	8.00	130.00	Open	9.79	1058.95	1058.95	0.00	0.00
7704	P-2965	140.00	8.00	130.00	Open	1.11	1060.04	1060.04	0.00	0.00
7705	P-2966	142.00	8.00	130.00	Open	5.59	1060.45	1060.45	0.00	0.00
7707	P-2967	166.00	8.00	130.00	Open	7.58	1057.80	1057.80	0.00	0.00
4590	P-2968	4.00	6.10	130.00	Open	0.08	1064.06	1064.06	0.00	0.00
4592	P-2969	4.00	6.10	130.00	Open	-0.08	1058.64	1058.64	0.00	0.00
4594	P-2970	4.00	6.10	130.00	Open	0.48	1060.84	1060.84	0.00	0.00
4597	P-2971	4.00	6.10	130.00	Open	-1.08	1060.84	1060.84	0.00	0.00
4600	P-2972	5.00	6.10	130.00	Open	-0.37	1216.97	1216.97	0.00	0.00
4602	P-2973	5.00	6.10	130.00	Open	-1.28	1063.97	1063.97	0.00	0.00
4604	P-2974	5.00	6.10	130.00	Open	0.08	1064.12	1064.12	0.00	0.00
4606	P-2975	5.00	6.10	130.00	Open	0.08	1057.81	1057.81	0.00	0.00
4608	P-2976	5.00	6.10	130.00	Open	0.88	1057.34	1057.34	0.00	0.00
4611	P-2977	5.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
4613	P-2978	5.00	6.10	130.00	Open	0.88	1060.85	1060.85	0.00	0.00
4616	P-2979	5.00	6.10	130.00	Open	-0.88	1060.91	1060.91	0.00	0.00
4618	P-2980	5.00	6.10	130.00	Open	-3.28	1322.91	1322.91	0.00	0.00
4620	P-2981	5.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
4622	P-2982	5.00	6.10	130.00	Open	0.08	1058.78	1058.78	0.00	0.00
4624	P-2983	5.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4626	P-2984	5.00	6.10	130.00	Open	-0.48	1059.53	1059.53	0.00	0.00
4629	P-2985	5.00	6.10	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
4632	P-2986	5.00	6.10	130.00	Open	-0.48	1060.83	1060.83	0.00	0.00
4635	P-2987	5.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
4637	P-2988	5.00	6.10	130.00	Open	-0.26	1322.91	1322.91	0.00	0.00
4639	P-2989	5.00	6.10	130.00	Open	0.48	981.48	981.48	0.00	0.00
4641	P-2990	5.00	6.10	130.00	Open	-0.08	1059.52	1059.52	0.00	0.00
4643	P-2991	5.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4645	P-2992	5.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
4647	P-2993	5.00	6.10	130.00	Open	0.72	1215.86	1215.86	0.00	0.00
4649	P-2994	5.00	6.10	130.00	Open	0.68	1057.81	1057.81	0.00	0.00
4651	P-2995	5.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4653	P-2996	5.00	6.10	130.00	Open	-0.48	1058.64	1058.64	0.00	0.00
4655	P-2997	5.00	6.10	130.00	Open	0.08	1058.12	1058.12	0.00	0.00
4657	P-2998	5.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4659	P-2999	5.00	6.10	130.00	Open	0.48	1062.77	1062.77	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4661	P-3000	5.00	6.10	130.00	Open	-1.28	1064.62	1064.62	0.00	0.00
4663	P-3001	5.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
4666	P-3002	5.00	6.10	130.00	Open	0.88	1058.75	1058.75	0.00	0.00
4669	P-3003	5.00	6.10	130.00	Open	0.08	1058.77	1058.77	0.00	0.00
4671	P-3004	5.00	6.10	130.00	Open	-1.68	1060.86	1060.86	0.00	0.00
4673	P-3005	5.00	6.10	130.00	Open	0.20	1218.21	1218.21	0.00	0.00
4675	P-3006	5.00	6.10	130.00	Open	-0.20	988.99	988.99	0.00	0.00
4678	P-3007	5.00	6.10	130.00	Open	0.48	1057.68	1057.68	0.00	0.00
4681	P-3008	5.00	6.10	130.00	Open	0.88	963.94	963.94	0.00	0.00
4683	P-3009	5.00	6.10	130.00	Open	1.48	1059.76	1059.76	0.00	0.00
4685	P-3010	5.00	6.10	130.00	Open	0.28	1061.63	1061.63	0.00	0.00
4687	P-3011	5.00	6.10	130.00	Open	0.48	1061.94	1061.94	0.00	0.00
4689	P-3012	5.00	6.10	130.00	Open	-0.28	1064.62	1064.62	0.00	0.00
4691	P-3013	5.00	6.10	130.00	Open	0.08	1059.75	1059.75	0.00	0.00
4693	P-3014	5.00	6.10	130.00	Open	-0.37	1216.97	1216.97	0.00	0.00
4695	P-3015	5.00	6.10	130.00	Open	-0.40	1322.95	1322.95	0.00	0.00
4697	P-3016	5.00	6.10	130.00	Open	-0.20	1217.94	1217.94	0.00	0.00
4699	P-3017	5.00	6.10	130.00	Open	-0.68	1060.89	1060.89	0.00	0.00
4701	P-3018	5.00	6.10	130.00	Open	0.88	1057.51	1057.51	0.00	0.00
4703	P-3019	5.00	6.10	130.00	Open	0.08	1064.09	1064.09	0.00	0.00
4705	P-3020	5.00	6.10	130.00	Open	0.28	981.48	981.48	0.00	0.00
4708	P-3021	5.00	6.10	130.00	Open	-0.08	981.49	981.49	0.00	0.00
4710	P-3022	5.00	6.10	130.00	Open	0.88	981.47	981.47	0.00	0.00
4712	P-3023	5.00	6.10	130.00	Open	-0.08	1059.39	1059.39	0.00	0.00
4714	P-3024	5.00	6.10	130.00	Open	-0.08	1059.66	1059.66	0.00	0.00
4716	P-3025	5.00	6.10	130.00	Open	-0.29	1217.76	1217.76	0.00	0.00
4719	P-3026	5.00	6.10	130.00	Open	0.08	1057.81	1057.81	0.00	0.00
4721	P-3027	5.00	6.10	130.00	Open	-0.08	1058.76	1058.76	0.00	0.00
4724	P-3028	5.00	6.10	130.00	Open	0.28	1060.89	1060.89	0.00	0.00
4727	P-3029	5.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4730	P-3030	5.00	6.10	130.00	Open	-1.08	1063.98	1063.98	0.00	0.00
4732	P-3031	5.00	6.10	130.00	Open	-0.20	1217.78	1217.78	0.00	0.00
4734	P-3032	5.00	6.10	130.00	Open	-0.08	1060.82	1060.82	0.00	0.00
4737	P-3033	5.00	6.10	130.00	Open	0.88	1057.92	1057.92	0.00	0.00
4739	P-3034	5.00	6.10	130.00	Open	0.48	1064.16	1064.16	0.00	0.00
4741	P-3035	5.00	6.10	130.00	Open	-0.72	1216.97	1216.97	0.00	0.00
4744	P-3036	5.00	6.10	130.00	Open	-0.11	1322.95	1322.95	0.00	0.00
4746	P-3037	5.00	6.10	130.00	Open	-1.08	1064.62	1064.62	0.00	0.00
4748	P-3038	5.00	6.10	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
4750	P-3039	5.00	6.10	130.00	Open	-0.08	1059.20	1059.20	0.00	0.00
4752	P-3040	5.00	6.10	130.00	Open	0.28	1057.82	1057.82	0.00	0.00
4754	P-3041	5.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
4756	P-3042	5.00	6.10	130.00	Open	-0.68	1058.78	1058.78	0.00	0.00
4758	P-3043	5.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4760	P-3044	5.00	6.10	130.00	Open	0.48	1057.83	1057.83	0.00	0.00
4762	P-3045	5.00	6.10	130.00	Open	0.28	981.48	981.48	0.00	0.00
4764	P-3046	5.00	6.10	130.00	Open	-0.48	1060.85	1060.85	0.00	0.00
4767	P-3047	5.00	6.10	130.00	Open	0.68	1064.84	1064.84	0.00	0.00
4770	P-3048	5.00	6.10	130.00	Open	0.08	981.47	981.47	0.00	0.00
4772	P-3049	5.00	6.10	130.00	Open	-0.08	1063.90	1063.90	0.00	0.00
4774	P-3050	5.00	6.10	130.00	Open	-0.28	1064.62	1064.62	0.00	0.00
4776	P-3051	5.00	6.10	130.00	Open	0.08	1060.33	1060.33	0.00	0.00
4778	P-3052	6.00	6.10	130.00	Open	0.48	1060.08	1060.08	0.00	0.00
4781	P-3053	6.00	6.10	130.00	Open	0.48	1056.91	1056.91	0.00	0.00
4783	P-3054	6.00	6.10	130.00	Open	0.88	1064.74	1064.74	0.00	0.00
4785	P-3055	6.00	6.10	130.00	Open	0.28	1061.09	1061.09	0.00	0.00
4788	P-3056	6.00	6.10	130.00	Open	-0.08	1063.95	1063.95	0.00	0.00
4791	P-3057	6.00	6.10	130.00	Open	0.28	1061.11	1061.11	0.00	0.00
4793	P-3058	6.00	6.10	130.00	Open	0.48	1063.57	1063.57	0.00	0.00
4795	P-3059	6.00	6.10	130.00	Open	-0.48	1060.90	1060.90	0.00	0.00
4797	P-3060	6.00	6.10	130.00	Open	-0.28	1058.69	1058.69	0.00	0.00
4799	P-3061	6.00	6.10	130.00	Open	-0.08	1058.82	1058.82	0.00	0.00
4801	P-3062	6.00	6.10	130.00	Open	0.08	981.48	981.48	0.00	0.00
4803	P-3063	6.00	6.10	130.00	Open	0.08	1064.20	1064.20	0.00	0.00
4805	P-3064	6.00	6.10	130.00	Open	-0.88	1058.67	1058.67	0.00	0.00
4807	P-3065	6.00	6.10	130.00	Open	-0.08	1064.75	1064.75	0.00	0.00
4809	P-3066	6.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4811	P-3067	6.00	6.10	130.00	Open	-0.68	1064.62	1064.62	0.00	0.00
4813	P-3068	6.00	6.10	130.00	Open	0.08	1061.53	1061.53	0.00	0.00
4815	P-3069	6.00	6.10	130.00	Open	-0.68	1060.13	1060.13	0.00	0.00
4817	P-3070	6.00	6.10	130.00	Open	-0.08	1058.66	1058.66	0.00	0.00
4819	P-3071	6.00	6.10	130.00	Open	0.08	1057.86	1057.86	0.00	0.00
4822	P-3072	6.00	6.10	130.00	Open	-0.28	1057.76	1057.76	0.00	0.00
4824	P-3073	6.00	6.10	130.00	Open	0.08	1061.72	1061.72	0.00	0.00
4827	P-3074	6.00	6.10	130.00	Open	0.48	1057.45	1057.45	0.00	0.00
4830	P-3075	6.00	6.10	130.00	Open	-0.08	1063.90	1063.90	0.00	0.00
4832	P-3076	6.00	6.10	130.00	Open	0.08	1061.02	1061.02	0.00	0.00
4835	P-3077	6.00	6.10	130.00	Open	-0.08	1058.70	1058.70	0.00	0.00
4837	P-3078	6.00	6.10	130.00	Open	0.28	1059.92	1059.92	0.00	0.00
4840	P-3079	6.00	6.10	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
4842	P-3080	6.00	6.10	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
4844	P-3081	6.00	6.10	130.00	Open	-1.08	1058.77	1058.77	0.00	0.00
4847	P-3082	6.00	6.10	130.00	Open	-0.08	1059.53	1059.53	0.00	0.00
4849	P-3083	6.00	6.10	130.00	Open	-0.28	1058.66	1058.66	0.00	0.00
4851	P-3084	6.00	6.10	130.00	Open	0.63	1218.03	1218.03	0.00	0.00
4854	P-3085	6.00	6.10	130.00	Open	-0.28	1059.01	1059.01	0.00	0.00
4856	P-3086	6.00	6.10	130.00	Open	-0.08	1064.48	1064.48	0.00	0.00
4858	P-3087	6.00	6.10	130.00	Open	0.08	1059.93	1059.93	0.00	0.00
4861	P-3088	6.00	6.10	130.00	Open	0.48	1064.62	1064.62	0.00	0.00
4863	P-3089	6.00	6.10	130.00	Open	-0.48	1064.06	1064.06	0.00	0.00
4865	P-3090	6.00	6.10	130.00	Open	-0.48	1057.41	1057.41	0.00	0.00
4867	P-3091	6.00	6.10	130.00	Open	-0.28	1063.75	1063.75	0.00	0.00
4869	P-3092	6.00	6.10	130.00	Open	-0.88	1064.33	1064.33	0.00	0.00
4871	P-3093	6.00	6.10	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
4873	P-3094	6.00	6.10	130.00	Open	0.28	1058.78	1058.78	0.00	0.00
4875	P-3095	6.00	6.10	130.00	Open	-0.08	1060.82	1060.82	0.00	0.00
4878	P-3096	6.00	6.10	130.00	Open	-0.08	1058.72	1058.72	0.00	0.00
4881	P-3097	6.00	6.10	130.00	Open	0.88	1061.62	1061.62	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4884	P-3098	6.00	6.10	130.00	Open	0.88	1060.17	1060.17	0.00	0.00
4887	P-3099	6.00	6.10	130.00	Open	0.28	1059.93	1059.93	0.00	0.00
4890	P-3100	6.00	6.10	130.00	Open	0.48	1058.28	1058.28	0.00	0.00
4893	P-3101	6.00	6.10	130.00	Open	-0.11	1322.93	1322.93	0.00	0.00
4895	P-3102	6.00	6.10	130.00	Open	-0.68	1058.81	1058.81	0.00	0.00
4897	P-3103	6.00	6.10	130.00	Open	-0.11	1322.94	1322.94	0.00	0.00
4899	P-3104	6.00	6.10	130.00	Open	-0.28	1064.43	1064.43	0.00	0.00
4901	P-3105	6.00	6.10	130.00	Open	-0.48	1061.64	1061.64	0.00	0.00
4903	P-3106	6.00	6.10	130.00	Open	0.29	1218.14	1218.14	0.00	0.00
4906	P-3107	6.00	6.10	130.00	Open	-0.08	1062.42	1062.42	0.00	0.00
4908	P-3108	6.00	6.10	130.00	Open	0.68	1057.42	1057.42	0.00	0.00
4910	P-3109	6.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4912	P-3110	6.00	6.10	130.00	Open	0.48	1059.10	1059.10	0.00	0.00
4914	P-3111	6.00	6.10	130.00	Open	0.28	1058.65	1058.65	0.00	0.00
4917	P-3112	6.00	6.10	130.00	Open	3.29	1058.77	1058.77	0.00	0.00
4920	P-3113	6.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
4922	P-3114	6.00	6.10	130.00	Open	-0.08	1060.84	1060.84	0.00	0.00
4924	P-3115	6.00	6.10	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
4927	P-3116	6.00	6.10	130.00	Open	0.08	1059.09	1059.09	0.00	0.00
4929	P-3117	6.00	6.10	130.00	Open	0.08	1059.95	1059.95	0.00	0.00
4932	P-3118	6.00	6.10	130.00	Open	0.48	1059.82	1059.82	0.00	0.00
4935	P-3119	6.00	6.10	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
4938	P-3120	6.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4940	P-3121	6.00	6.10	130.00	Open	0.88	1057.44	1057.44	0.00	0.00
4942	P-3122	6.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4944	P-3123	6.00	6.10	130.00	Open	0.08	1062.10	1062.10	0.00	0.00
4946	P-3124	6.00	6.10	130.00	Open	1.28	1057.68	1057.68	0.00	0.00
4949	P-3125	6.00	6.10	130.00	Open	1.08	1064.34	1064.34	0.00	0.00
4951	P-3126	6.00	6.10	130.00	Open	0.08	1056.80	1056.80	0.00	0.00
4954	P-3127	6.00	6.10	130.00	Open	0.88	1062.81	1062.81	0.00	0.00
4956	P-3128	6.00	6.10	130.00	Open	0.28	1059.93	1059.93	0.00	0.00
4959	P-3129	6.00	6.10	130.00	Open	-0.48	1064.62	1064.62	0.00	0.00
4961	P-3130	6.00	6.10	130.00	Open	-0.48	994.76	994.76	0.00	0.00
4963	P-3131	6.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
4966	P-3132	6.00	6.10	130.00	Open	-0.48	1059.16	1059.16	0.00	0.00
4969	P-3133	6.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4971	P-3134	6.00	6.10	130.00	Open	-0.28	1059.53	1059.53	0.00	0.00
4973	P-3135	6.00	6.10	130.00	Open	0.08	1058.66	1058.66	0.00	0.00
4975	P-3136	6.00	6.10	130.00	Open	0.28	1056.98	1056.98	0.00	0.00
4977	P-3137	6.00	6.10	130.00	Open	0.28	1059.53	1059.53	0.00	0.00
4979	P-3138	6.00	6.10	130.00	Open	0.08	1058.71	1058.71	0.00	0.00
4981	P-3139	6.00	6.10	130.00	Open	0.08	1060.33	1060.33	0.00	0.00
4983	P-3140	6.00	6.10	130.00	Open	1.28	1057.54	1057.54	0.00	0.00
4986	P-3141	6.00	6.10	130.00	Open	-0.48	1063.38	1063.38	0.00	0.00
4989	P-3142	6.00	6.10	130.00	Open	0.68	1063.37	1063.37	0.00	0.00
4992	P-3143	6.00	6.10	130.00	Open	0.88	1064.10	1064.10	0.00	0.00
4994	P-3144	6.00	6.10	130.00	Open	0.28	1058.54	1058.54	0.00	0.00
4997	P-3145	6.00	6.10	130.00	Open	-0.48	1063.72	1063.72	0.00	0.00
5000	P-3146	6.00	6.10	130.00	Open	1.68	1063.61	1063.61	0.00	0.00
5002	P-3147	6.00	6.10	130.00	Open	-0.08	1064.06	1064.06	0.00	0.00
5004	P-3148	6.00	6.10	130.00	Open	0.48	1058.09	1058.09	0.00	0.00
5006	P-3149	6.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
5008	P-3150	6.00	6.10	130.00	Open	-0.28	1058.75	1058.75	0.00	0.00
5011	P-3151	6.00	6.10	130.00	Open	0.08	1064.51	1064.51	0.00	0.00
5013	P-3152	6.00	6.10	130.00	Open	2.29	1059.73	1059.73	0.00	0.00
5015	P-3153	6.00	6.10	130.00	Open	-0.08	1059.74	1059.74	0.00	0.00
5017	P-3154	6.00	6.10	130.00	Open	-0.08	1061.68	1061.68	0.00	0.00
5020	P-3155	6.00	6.10	130.00	Open	-0.48	1057.83	1057.83	0.00	0.00
5023	P-3156	6.00	6.10	130.00	Open	0.63	1218.03	1218.03	0.00	0.00
5026	P-3157	6.00	6.10	130.00	Open	-0.48	1064.07	1064.07	0.00	0.00
5028	P-3158	6.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
5031	P-3159	6.00	6.10	130.00	Open	1.08	1064.85	1064.85	0.00	0.00
5034	P-3160	6.00	6.10	130.00	Open	0.20	1217.85	1217.85	0.00	0.00
5036	P-3161	6.00	6.10	130.00	Open	0.68	1057.91	1057.91	0.00	0.00
5038	P-3162	6.00	6.10	130.00	Open	0.48	1057.40	1057.40	0.00	0.00
5041	P-3163	6.00	6.10	130.00	Open	1.08	1058.76	1058.76	0.00	0.00
5044	P-3164	6.00	6.10	130.00	Open	0.28	1061.32	1061.32	0.00	0.00
5047	P-3165	6.00	6.10	130.00	Open	0.08	1058.56	1058.56	0.00	0.00
5050	P-3166	7.00	6.10	130.00	Open	0.28	1057.84	1057.84	0.00	0.00
5052	P-3167	7.00	6.10	130.00	Open	0.48	1060.13	1060.13	0.00	0.00
5055	P-3168	7.00	6.10	130.00	Open	-0.08	1063.83	1063.83	0.00	0.00
5057	P-3169	7.00	6.10	130.00	Open	-0.08	1059.12	1059.12	0.00	0.00
5059	P-3170	7.00	6.10	130.00	Open	0.08	1058.71	1058.71	0.00	0.00
5061	P-3171	7.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
5064	P-3172	7.00	6.10	130.00	Open	2.09	981.48	981.48	0.00	0.00
5066	P-3173	7.00	6.10	130.00	Open	-0.08	1064.09	1064.09	0.00	0.00
5309	P-3174	7.00	6.10	130.00	Open	-0.68	1058.75	1058.75	0.00	0.00
5311	P-3175	8.00	6.10	130.00	Open	0.08	1062.35	1062.35	0.00	0.00
5313	P-3176	8.00	6.10	130.00	Open	0.88	1060.84	1060.84	0.00	0.00
5316	P-3177	8.00	6.10	130.00	Open	-0.08	1063.78	1063.78	0.00	0.00
5318	P-3178	8.00	6.10	130.00	Open	-0.68	1063.37	1063.37	0.00	0.00
5321	P-3179	8.00	6.10	130.00	Open	-0.08	1064.87	1064.87	0.00	0.00
5324	P-3180	8.00	6.10	130.00	Open	0.28	1059.93	1059.93	0.00	0.00
5327	P-3181	8.00	6.10	130.00	Open	0.08	1058.62	1058.62	0.00	0.00
5330	P-3182	8.00	6.10	130.00	Open	-0.20	1217.95	1217.95	0.00	0.00
5332	P-3183	8.00	6.10	130.00	Open	0.08	1057.84	1057.84	0.00	0.00
5334	P-3184	8.00	6.10	130.00	Open	-0.08	1063.58	1063.58	0.00	0.00
5336	P-3185	8.00	6.10	130.00	Open	-0.88	1059.00	1059.00	0.00	0.00
5339	P-3186	8.00	6.10	130.00	Open	-0.48	1061.60	1061.60	0.00	0.00
5341	P-3187	8.00	6.10	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
5344	P-3188	8.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
5346	P-3189	8.00	6.10	130.00	Open	0.28	1057.76	1057.76	0.00	0.00
5348	P-3190	8.00	6.10	130.00	Open	-0.88	1064.11	1064.11	0.00	0.00
5351	P-3191	8.00	6.10	130.00	Open	0.48	1059.72	1059.72	0.00	0.00
5353	P-3192	8.00	6.10	130.00	Open	0.28	1058.70	1058.70	0.00	0.00
5355	P-3193	8.00	6.10	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
5358	P-3194	8.00	6.10	130.00	Open	-0.08	1059.00	1059.00	0.00	0.00
5361	P-3195	8.00	6.10	130.00	Open	-0.08	1058.68	1058.68	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5363	P-3196	8.00	6.10	130.00	Open	-0.08	1059.00	1059.00	0.00	0.00
5365	P-3197	8.00	6.10	130.00	Open	0.08	1060.08	1060.08	0.00	0.00
5368	P-3198	8.00	6.10	130.00	Open	0.08	1060.80	1060.80	0.00	0.00
5370	P-3199	8.00	6.10	130.00	Open	-0.48	1058.79	1058.79	0.00	0.00
5373	P-3200	8.00	6.10	130.00	Open	0.08	1064.64	1064.64	0.00	0.00
5375	P-3201	8.00	6.10	130.00	Open	-0.48	1063.37	1063.37	0.00	0.00
5378	P-3202	8.00	6.10	130.00	Open	0.08	1059.49	1059.49	0.00	0.00
5381	P-3203	8.00	6.10	130.00	Open	0.88	1057.40	1057.40	0.00	0.00
5384	P-3204	8.00	6.10	130.00	Open	-0.88	1059.28	1059.28	0.00	0.00
5387	P-3205	8.00	6.10	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
5389	P-3206	8.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
5391	P-3207	8.00	6.10	130.00	Open	-0.83	1322.91	1322.91	0.00	0.00
5393	P-3208	8.00	6.10	130.00	Open	1.28	1057.81	1057.81	0.00	0.00
5395	P-3209	8.00	6.10	130.00	Open	3.49	1057.54	1057.54	0.00	0.00
5398	P-3210	8.00	6.10	130.00	Open	0.08	1060.02	1060.02	0.00	0.00
5400	P-3211	8.00	6.10	130.00	Open	0.48	1057.93	1057.93	0.00	0.00
5403	P-3212	8.00	6.10	130.00	Open	-0.28	1058.71	1058.71	0.00	0.00
5405	P-3213	8.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
5407	P-3214	8.00	6.10	130.00	Open	-0.68	1058.67	1058.67	0.00	0.00
5409	P-3215	8.00	6.10	130.00	Open	-0.08	1059.26	1059.26	0.00	0.00
5411	P-3216	8.00	6.10	130.00	Open	0.28	1058.76	1058.76	0.00	0.00
5413	P-3217	8.00	6.10	130.00	Open	1.08	1057.42	1057.42	0.00	0.00
5415	P-3218	8.00	6.10	130.00	Open	0.08	1060.02	1060.02	0.00	0.00
5417	P-3219	8.00	6.10	130.00	Open	0.48	1058.04	1058.04	0.00	0.00
5420	P-3220	8.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
5422	P-3221	8.00	6.10	130.00	Open	0.08	1061.63	1061.63	0.00	0.00
5425	P-3222	8.00	6.10	130.00	Open	-0.08	1058.76	1058.76	0.00	0.00
5427	P-3223	8.00	6.10	130.00	Open	0.08	1058.80	1058.80	0.00	0.00
5429	P-3224	8.00	6.10	130.00	Open	0.48	1057.82	1057.82	0.00	0.00
5431	P-3225	8.00	6.10	130.00	Open	0.48	1063.46	1063.46	0.00	0.00
5434	P-3226	8.00	6.10	130.00	Open	-0.68	1063.38	1063.38	0.00	0.00
5436	P-3227	8.00	6.10	130.00	Open	-0.40	1322.92	1322.92	0.00	0.00
5438	P-3228	8.00	6.10	130.00	Open	0.28	1057.81	1057.81	0.00	0.00
5441	P-3229	8.00	6.10	130.00	Open	-1.28	1061.96	1061.96	0.00	0.00
5443	P-3230	8.00	6.10	130.00	Open	0.48	1057.91	1057.91	0.00	0.00
5445	P-3231	8.00	6.10	130.00	Open	-0.28	1059.00	1059.00	0.00	0.00
5447	P-3232	8.00	6.10	130.00	Open	0.48	1057.81	1057.81	0.00	0.00
5449	P-3233	8.00	6.10	130.00	Open	0.08	1058.40	1058.40	0.00	0.00
5451	P-3234	8.00	6.10	130.00	Open	0.08	1057.41	1057.41	0.00	0.00
5453	P-3235	8.00	6.10	130.00	Open	0.28	1060.02	1060.02	0.00	0.00
5456	P-3236	8.00	6.10	130.00	Open	0.48	1060.84	1060.84	0.00	0.00
5459	P-3237	8.00	6.10	130.00	Open	1.48	1057.68	1057.68	0.00	0.00
5461	P-3238	8.00	6.10	130.00	Open	-0.88	1064.62	1064.62	0.00	0.00
5464	P-3239	8.00	6.10	130.00	Open	-0.68	1064.62	1064.62	0.00	0.00
5467	P-3240	8.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
5469	P-3241	8.00	6.10	130.00	Open	0.88	1057.42	1057.42	0.00	0.00
5471	P-3242	8.00	6.10	130.00	Open	0.08	1062.02	1062.02	0.00	0.00
5473	P-3243	8.00	6.10	130.00	Open	0.68	1061.75	1061.75	0.00	0.00
5476	P-3244	8.00	6.10	130.00	Open	0.88	1059.96	1059.96	0.00	0.00
5478	P-3245	8.00	6.10	130.00	Open	0.28	1056.99	1056.99	0.00	0.00
5480	P-3246	8.00	6.10	130.00	Open	1.28	1062.24	1062.24	0.00	0.00
5482	P-3247	8.00	6.10	130.00	Open	0.48	1057.66	1057.66	0.00	0.00
5485	P-3248	8.00	6.10	130.00	Open	0.68	1061.33	1061.33	0.00	0.00
5487	P-3249	8.00	6.10	130.00	Open	-0.68	1064.62	1064.62	0.00	0.00
5489	P-3250	8.00	6.10	130.00	Open	-0.68	1058.64	1058.64	0.00	0.00
5491	P-3251	8.00	6.10	130.00	Open	-0.20	1218.32	1218.32	0.00	0.00
5493	P-3252	8.00	6.10	130.00	Open	-0.28	1058.99	1058.99	0.00	0.00
5495	P-3253	8.00	6.10	130.00	Open	0.28	1064.84	1064.84	0.00	0.00
5497	P-3254	8.00	6.10	130.00	Open	0.68	1057.69	1057.69	0.00	0.00
5499	P-3255	8.00	6.10	130.00	Open	0.48	1059.27	1059.27	0.00	0.00
5501	P-3256	8.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
5503	P-3257	8.00	6.10	130.00	Open	-1.48	1063.30	1063.30	0.00	0.00
5505	P-3258	8.00	6.10	130.00	Open	0.68	1057.67	1057.67	0.00	0.00
5508	P-3259	8.00	6.10	130.00	Open	0.29	1218.68	1218.68	0.00	0.00
5510	P-3260	8.00	6.10	130.00	Open	0.08	1060.24	1060.24	0.00	0.00
5512	P-3261	8.00	6.10	130.00	Open	-0.88	1060.84	1060.84	0.00	0.00
5515	P-3262	8.00	6.10	130.00	Open	0.48	1058.64	1058.64	0.00	0.00
5517	P-3263	8.00	6.10	130.00	Open	0.48	1060.50	1060.50	0.00	0.00
5519	P-3264	8.00	6.10	130.00	Open	0.28	1060.80	1060.80	0.00	0.00
5522	P-3265	8.00	6.10	130.00	Open	0.48	1058.84	1058.84	0.00	0.00
5525	P-3266	8.00	6.10	130.00	Open	0.48	1060.80	1060.80	0.00	0.00
5528	P-3267	8.00	6.10	130.00	Open	0.08	1058.73	1058.73	0.00	0.00
5531	P-3268	8.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
5533	P-3269	8.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
5535	P-3270	8.00	6.10	130.00	Open	-0.28	1059.05	1059.05	0.00	0.00
5537	P-3271	8.00	6.10	130.00	Open	0.48	1058.27	1058.27	0.00	0.00
5539	P-3272	8.00	6.10	130.00	Open	1.28	1057.44	1057.44	0.00	0.00
5541	P-3273	8.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5543	P-3274	8.00	6.10	130.00	Open	-0.08	1058.65	1058.65	0.00	0.00
5545	P-3275	8.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
5547	P-3276	8.00	6.10	130.00	Open	0.48	1057.90	1057.90	0.00	0.00
5550	P-3277	8.00	6.10	130.00	Open	0.48	1059.58	1059.58	0.00	0.00
5552	P-3278	8.00	6.10	130.00	Open	0.08	1057.44	1057.44	0.00	0.00
5554	P-3279	8.00	6.10	130.00	Open	-1.28	1059.73	1059.73	0.00	0.00
5556	P-3280	8.00	6.10	130.00	Open	1.28	1063.91	1063.91	0.00	0.00
5559	P-3281	8.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
5562	P-3282	8.00	6.10	130.00	Open	1.88	1057.68	1057.68	0.00	0.00
5565	P-3283	8.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5568	P-3284	8.00	6.10	130.00	Open	-0.20	1217.82	1217.82	0.00	0.00
5570	P-3285	8.00	6.10	130.00	Open	0.08	1057.75	1057.75	0.00	0.00
5572	P-3286	8.00	6.10	130.00	Open	0.88	1057.10	1057.10	0.00	0.00
5574	P-3287	8.00	6.10	130.00	Open	0.28	1057.96	1057.96	0.00	0.00
5576	P-3288	8.00	6.10	130.00	Open	0.48	1060.87	1060.87	0.00	0.00
5578	P-3289	8.00	6.10	130.00	Open	-0.20	1218.07	1218.07	0.00	0.00
5580	P-3290	8.00	6.10	130.00	Open	1.28	1062.60	1062.60	0.00	0.00
5582	P-3291	8.00	6.10	130.00	Open	0.28	1064.63	1064.63	0.00	0.00
5584	P-3292	8.00	6.10	130.00	Open	-0.48	1064.62	1064.62	0.00	0.00
5587	P-3293	8.00	6.10	130.00	Open	0.48	1057.82	1057.82	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5590	P-3294	8.00	6.10	130.00	Open	0.48	1059.76	1059.76	0.00	0.00
5592	P-3295	8.00	6.10	130.00	Open	0.48	1061.44	1061.44	0.00	0.00
5594	P-3296	9.00	6.10	130.00	Open	0.08	1060.91	1060.91	0.00	0.00
5597	P-3297	9.00	6.10	130.00	Open	0.88	1057.42	1057.42	0.00	0.00
5600	P-3298	9.00	6.10	130.00	Open	0.48	1057.59	1057.59	0.00	0.00
5603	P-3299	9.00	6.10	130.00	Open	0.46	1218.03	1218.03	0.00	0.00
5605	P-3300	9.00	6.10	130.00	Open	-4.42	1217.88	1217.88	0.00	0.00
5607	P-3301	9.00	6.10	130.00	Open	-0.48	1060.06	1060.06	0.00	0.00
5609	P-3302	9.00	6.10	130.00	Open	0.88	1064.60	1064.60	0.00	0.00
5611	P-3303	9.00	6.10	130.00	Open	-0.48	1064.62	1064.62	0.00	0.00
5614	P-3304	9.00	6.10	130.00	Open	0.28	1062.46	1062.46	0.00	0.00
5616	P-3305	9.00	6.10	130.00	Open	-0.88	1061.88	1061.88	0.00	0.00
5618	P-3306	9.00	6.10	130.00	Open	0.08	1057.78	1057.78	0.00	0.00
5620	P-3307	9.00	6.10	130.00	Open	0.08	1059.94	1059.94	0.00	0.00
5622	P-3308	9.00	6.10	130.00	Open	0.88	1057.40	1057.40	0.00	0.00
5625	P-3309	9.00	6.10	130.00	Open	0.48	1059.53	1059.53	0.00	0.00
5628	P-3310	9.00	6.10	130.00	Open	0.08	1061.61	1061.61	0.00	0.00
5631	P-3311	9.00	6.10	130.00	Open	-0.08	1061.30	1061.30	0.00	0.00
5633	P-3312	9.00	6.10	130.00	Open	0.08	1059.70	1059.70	0.00	0.00
5635	P-3313	9.00	6.10	130.00	Open	1.08	1057.52	1057.52	0.00	0.00
5637	P-3314	9.00	6.10	130.00	Open	0.08	1058.69	1058.69	0.00	0.00
5640	P-3315	9.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
5642	P-3316	9.00	6.10	130.00	Open	-0.20	1218.02	1218.02	0.00	0.00
5645	P-3317	9.00	6.10	130.00	Open	0.08	1059.53	1059.53	0.00	0.00
5648	P-3318	9.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5650	P-3319	9.00	6.10	130.00	Open	0.20	1218.27	1218.27	0.00	0.00
5653	P-3320	9.00	6.10	130.00	Open	0.48	1059.43	1059.43	0.00	0.00
5656	P-3321	9.00	6.10	130.00	Open	0.68	1064.10	1064.10	0.00	0.00
5659	P-3322	9.00	6.10	130.00	Open	1.48	1061.21	1061.21	0.00	0.00
5662	P-3323	9.00	6.10	130.00	Open	1.08	1057.83	1057.83	0.00	0.00
5664	P-3324	9.00	6.10	130.00	Open	0.48	1059.66	1059.66	0.00	0.00
5666	P-3325	9.00	6.10	130.00	Open	0.28	1061.83	1061.83	0.00	0.00
5668	P-3326	9.00	6.10	130.00	Open	0.29	1218.03	1218.03	0.00	0.00
5670	P-3327	9.00	6.10	130.00	Open	-0.88	1063.72	1063.72	0.00	0.00
5673	P-3328	9.00	6.10	130.00	Open	0.88	1060.86	1060.86	0.00	0.00
5675	P-3329	9.00	6.10	130.00	Open	-0.08	1062.00	1062.00	0.00	0.00
5677	P-3330	9.00	6.10	130.00	Open	-0.08	1063.43	1063.43	0.00	0.00
5680	P-3331	9.00	6.10	130.00	Open	-0.48	1062.60	1062.60	0.00	0.00
5682	P-3332	9.00	6.10	130.00	Open	0.28	1060.92	1060.92	0.00	0.00
5684	P-3333	9.00	6.10	130.00	Open	-1.08	1060.91	1060.91	0.00	0.00
5686	P-3334	9.00	6.10	130.00	Open	0.88	1059.69	1059.69	0.00	0.00
5688	P-3335	9.00	6.10	130.00	Open	-2.09	1064.11	1064.11	0.00	0.00
5691	P-3336	9.00	6.10	130.00	Open	0.28	1060.80	1060.80	0.00	0.00
5694	P-3337	9.00	6.10	130.00	Open	0.08	1057.76	1057.76	0.00	0.00
5696	P-3338	9.00	6.10	130.00	Open	-0.48	1064.90	1064.90	0.00	0.00
5698	P-3339	9.00	6.10	130.00	Open	0.48	1058.02	1058.02	0.00	0.00
5701	P-3340	9.00	6.10	130.00	Open	0.28	1059.93	1059.93	0.00	0.00
5704	P-3341	9.00	6.10	130.00	Open	0.08	1060.34	1060.34	0.00	0.00
5706	P-3342	9.00	6.10	130.00	Open	0.48	1064.62	1064.62	0.00	0.00
5708	P-3343	9.00	6.10	130.00	Open	-0.08	1059.11	1059.11	0.00	0.00
5710	P-3344	9.00	6.10	130.00	Open	0.28	1062.31	1062.31	0.00	0.00
5713	P-3345	9.00	6.10	130.00	Open	0.08	1057.06	1057.06	0.00	0.00
5715	P-3346	9.00	6.10	130.00	Open	1.08	1059.94	1059.94	0.00	0.00
5718	P-3347	9.00	6.10	130.00	Open	0.48	1060.06	1060.06	0.00	0.00
5720	P-3348	9.00	6.10	130.00	Open	0.48	1057.45	1057.45	0.00	0.00
5722	P-3349	9.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
5725	P-3350	9.00	6.10	130.00	Open	-0.08	1063.38	1063.38	0.00	0.00
5728	P-3351	9.00	6.10	130.00	Open	-0.11	1322.96	1322.96	0.00	0.00
5730	P-3352	9.00	6.10	130.00	Open	0.68	1059.93	1059.93	0.00	0.00
5733	P-3353	9.00	6.10	130.00	Open	0.28	1058.69	1058.69	0.00	0.00
5735	P-3354	9.00	6.10	130.00	Open	-0.88	1060.82	1060.82	0.00	0.00
5738	P-3355	9.00	6.10	130.00	Open	-0.48	1060.85	1060.85	0.00	0.00
5740	P-3356	9.00	6.10	130.00	Open	0.48	1064.62	1064.62	0.00	0.00
5742	P-3357	9.00	6.10	130.00	Open	0.08	1061.72	1061.72	0.00	0.00
5744	P-3358	9.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
5747	P-3359	9.00	6.10	130.00	Open	0.08	1063.20	1063.20	0.00	0.00
5749	P-3360	9.00	6.10	130.00	Open	0.20	1218.28	1218.28	0.00	0.00
5752	P-3361	9.00	6.10	130.00	Open	0.08	1064.81	1064.81	0.00	0.00
5754	P-3362	9.00	6.10	130.00	Open	-0.88	1062.02	1062.02	0.00	0.00
5756	P-3363	9.00	6.10	130.00	Open	-0.48	1064.21	1064.21	0.00	0.00
5759	P-3364	9.00	6.10	130.00	Open	0.48	1057.81	1057.81	0.00	0.00
5762	P-3365	9.00	6.10	130.00	Open	0.46	1216.30	1216.30	0.00	0.00
5764	P-3366	9.00	6.10	130.00	Open	0.08	1060.49	1060.49	0.00	0.00
5766	P-3367	9.00	6.10	130.00	Open	0.28	1059.42	1059.42	0.00	0.00
5768	P-3368	9.00	6.10	130.00	Open	-0.08	1064.61	1064.61	0.00	0.00
5770	P-3369	9.00	6.10	130.00	Open	0.48	1060.01	1060.01	0.00	0.00
5772	P-3370	9.00	6.10	130.00	Open	-0.28	1064.11	1064.11	0.00	0.00
5775	P-3371	9.00	6.10	130.00	Open	-0.08	1058.64	1058.64	0.00	0.00
5777	P-3372	9.00	6.10	130.00	Open	-0.08	1061.64	1061.64	0.00	0.00
5779	P-3373	9.00	6.10	130.00	Open	0.08	1064.60	1064.60	0.00	0.00
5782	P-3374	9.00	6.10	130.00	Open	0.68	1057.82	1057.82	0.00	0.00
5784	P-3375	9.00	6.10	130.00	Open	0.68	1057.82	1057.82	0.00	0.00
5786	P-3376	9.00	6.10	130.00	Open	0.08	1057.81	1057.81	0.00	0.00
6749	P-3377	14.00	6.10	130.00	Open	0.28	1059.46	1059.46	0.00	0.00
6752	P-3378	14.00	6.10	130.00	Open	0.48	1059.06	1059.06	0.00	0.00
6754	P-3379	14.00	6.10	130.00	Open	0.88	1059.94	1059.94	0.00	0.00
6756	P-3380	14.00	6.10	130.00	Open	0.68	1060.39	1060.39	0.00	0.00
6758	P-3381	14.00	6.10	130.00	Open	0.08	1057.87	1057.87	0.00	0.00
6761	P-3382	14.00	6.10	130.00	Open	1.08	1062.98	1062.98	0.00	0.00
6763	P-3383	14.00	6.10	130.00	Open	0.48	1060.08	1060.08	0.00	0.00
6766	P-3384	14.00	6.10	130.00	Open	0.48	1057.76	1057.76	0.00	0.00
6768	P-3385	14.00	6.10	130.00	Open	0.48	1060.02	1060.02	0.00	0.00
6770	P-3386	14.00	6.10	130.00	Open	-1.08	1062.02	1062.02	0.00	0.00
6772	P-3387	14.00	6.10	130.00	Open	0.28	1058.68	1058.68	0.00	0.00
6775	P-3388	14.00	6.10	130.00	Open	0.88	1059.31	1059.31	0.00	0.00
6778	P-3389	14.00	6.10	130.00	Open	1.88	1057.41	1057.41	0.00	0.00
6781	P-3390	14.00	6.10	130.00	Open	-0.08	1058.67	1058.67	0.00	0.00
6783	P-3391	14.00	6.10	130.00	Open	0.28	1057.83	1057.83	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6786	P-3392	14.00	6.10	130.00	Open	0.48	1060.01	1060.01	0.00	0.00
6789	P-3393	14.00	6.10	130.00	Open	0.20	993.47	993.47	0.00	0.00
6792	P-3394	14.00	6.10	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
6794	P-3395	14.00	6.10	130.00	Open	0.08	1061.04	1061.04	0.00	0.00
6797	P-3396	14.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
6799	P-3397	15.00	6.10	130.00	Open	2.09	1058.62	1058.62	0.00	0.00
6801	P-3398	15.00	6.10	130.00	Open	-1.88	1057.42	1057.42	0.00	0.00
6803	P-3399	15.00	6.10	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
6806	P-3400	15.00	6.10	130.00	Open	-0.88	1063.30	1063.30	0.00	0.00
6808	P-3401	15.00	6.10	130.00	Open	0.68	1061.61	1061.61	0.00	0.00
6811	P-3402	15.00	6.10	130.00	Open	1.68	1056.94	1056.94	0.00	0.00
6813	P-3403	15.00	6.10	130.00	Open	0.28	1060.91	1060.91	0.00	0.00
6815	P-3404	15.00	6.10	130.00	Open	0.20	988.98	988.98	0.00	0.00
6817	P-3405	15.00	6.10	130.00	Open	0.48	1059.96	1059.96	0.00	0.00
6820	P-3406	15.00	6.10	130.00	Open	-0.68	1063.38	1063.38	0.00	0.00
6822	P-3407	15.00	6.10	130.00	Open	-0.28	1062.62	1062.62	0.00	0.00
6824	P-3408	15.00	6.10	130.00	Open	0.08	1058.75	1058.75	0.00	0.00
6827	P-3409	15.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
6830	P-3410	15.00	6.10	130.00	Open	0.08	1060.83	1060.83	0.00	0.00
6832	P-3411	15.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6835	P-3412	15.00	6.10	130.00	Open	1.28	1061.61	1061.61	0.00	0.00
6838	P-3413	15.00	6.10	130.00	Open	0.48	1058.69	1058.69	0.00	0.00
6841	P-3414	15.00	6.10	130.00	Open	-0.48	1062.60	1062.60	0.00	0.00
6843	P-3415	15.00	6.10	130.00	Open	-1.28	1058.67	1058.67	0.00	0.00
6845	P-3416	15.00	6.10	130.00	Open	0.48	1064.62	1064.62	0.00	0.00
6847	P-3417	15.00	6.10	130.00	Open	0.48	1064.88	1064.88	0.00	0.00
6849	P-3418	15.00	6.10	130.00	Open	0.88	1059.72	1059.72	0.00	0.00
6851	P-3419	15.00	6.10	130.00	Open	0.28	1061.06	1061.06	0.00	0.00
6853	P-3420	15.00	6.10	130.00	Open	1.48	1059.72	1059.72	0.00	0.00
6855	P-3421	15.00	6.10	130.00	Open	-0.40	1322.92	1322.92	0.00	0.00
6858	P-3422	15.00	6.10	130.00	Open	0.08	1057.80	1057.80	0.00	0.00
6860	P-3423	16.00	6.10	130.00	Open	0.28	1057.77	1057.77	0.00	0.00
6863	P-3424	16.00	6.10	130.00	Open	0.28	1059.72	1059.72	0.00	0.00
6865	P-3425	16.00	6.10	130.00	Open	0.48	1060.97	1060.97	0.00	0.00
6868	P-3426	16.00	6.10	130.00	Open	-0.68	1059.26	1059.26	0.00	0.00
6871	P-3427	16.00	6.10	130.00	Open	0.08	1061.15	1061.15	0.00	0.00
6874	P-3428	16.00	6.10	130.00	Open	0.37	1218.52	1218.52	0.00	0.00
6876	P-3429	16.00	6.10	130.00	Open	0.48	1058.03	1058.03	0.00	0.00
6879	P-3430	16.00	6.10	130.00	Open	-1.99	1322.92	1322.92	0.00	0.00
6881	P-3431	16.00	6.10	130.00	Open	-0.28	1063.16	1063.16	0.00	0.00
6883	P-3432	16.00	6.10	130.00	Open	0.48	1064.60	1064.60	0.00	0.00
6886	P-3433	16.00	6.10	130.00	Open	0.08	1059.93	1059.93	0.00	0.00
6888	P-3434	16.00	6.10	130.00	Open	0.48	1059.96	1059.96	0.00	0.00
6891	P-3435	16.00	6.10	130.00	Open	0.08	1057.96	1057.96	0.00	0.00
6894	P-3436	16.00	6.10	130.00	Open	0.68	1059.88	1059.88	0.00	0.00
6896	P-3437	16.00	6.10	130.00	Open	0.28	963.94	963.94	0.00	0.00
6899	P-3438	16.00	6.10	130.00	Open	0.28	1059.73	1059.73	0.00	0.00
6902	P-3439	16.00	6.10	130.00	Open	0.08	1062.60	1062.60	0.00	0.00
6904	P-3440	16.00	6.10	130.00	Open	-2.09	1059.35	1059.35	0.00	0.00
6907	P-3441	16.00	6.10	130.00	Open	0.88	1060.03	1060.03	0.00	0.00
6909	P-3442	16.00	6.10	130.00	Open	0.28	1057.80	1057.80	0.00	0.00
6911	P-3443	16.00	6.10	130.00	Open	0.08	963.95	963.95	0.00	0.00
6914	P-3444	16.00	6.10	130.00	Open	0.28	1059.73	1059.73	0.00	0.00
6917	P-3445	17.00	6.10	130.00	Open	0.08	1059.82	1059.82	0.00	0.00
6920	P-3446	17.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
6922	P-3447	17.00	6.10	130.00	Open	0.88	1059.72	1059.72	0.00	0.00
6924	P-3448	17.00	6.10	130.00	Open	-0.48	1060.87	1060.87	0.00	0.00
6926	P-3449	17.00	6.10	130.00	Open	0.08	1057.59	1057.59	0.00	0.00
6928	P-3450	17.00	6.10	130.00	Open	0.08	963.95	963.95	0.00	0.00
6931	P-3451	17.00	6.10	130.00	Open	0.20	1217.86	1217.86	0.00	0.00
6933	P-3452	17.00	6.10	130.00	Open	-0.48	1059.34	1059.34	0.00	0.00
6936	P-3453	17.00	6.10	130.00	Open	0.48	1060.15	1060.15	0.00	0.00
6938	P-3454	17.00	6.10	130.00	Open	0.88	1058.36	1058.36	0.00	0.00
6940	P-3455	17.00	6.10	130.00	Open	0.08	1064.01	1064.01	0.00	0.00
6942	P-3456	17.00	6.10	130.00	Open	0.88	1058.37	1058.37	0.00	0.00
6944	P-3457	17.00	6.10	130.00	Open	-0.08	1058.95	1058.95	0.00	0.00
6947	P-3458	18.00	6.10	130.00	Open	0.28	1058.64	1058.64	0.00	0.00
6949	P-3459	18.00	6.10	130.00	Open	0.08	1057.82	1057.82	0.00	0.00
6951	P-3460	18.00	6.10	130.00	Open	-0.29	1218.03	1218.03	0.00	0.00
6953	P-3461	18.00	6.10	130.00	Open	0.08	1060.80	1060.80	0.00	0.00
6955	P-3462	18.00	6.10	130.00	Open	-0.68	1064.87	1064.87	0.00	0.00
6957	P-3463	18.00	6.10	130.00	Open	0.88	1057.47	1057.47	0.00	0.00
6960	P-3464	18.00	6.10	130.00	Open	0.08	1059.99	1059.99	0.00	0.00
6963	P-3465	18.00	6.10	130.00	Open	0.68	1059.26	1059.26	0.00	0.00
6965	P-3466	19.00	6.10	130.00	Open	0.28	1060.88	1060.88	0.00	0.00
6967	P-3467	19.00	6.10	130.00	Open	-0.28	1059.10	1059.10	0.00	0.00
6969	P-3468	19.00	6.10	130.00	Open	0.08	1061.15	1061.15	0.00	0.00
6971	P-3469	19.00	6.10	130.00	Open	0.28	1060.86	1060.86	0.00	0.00
6973	P-3470	19.00	6.10	130.00	Open	0.08	1064.76	1064.76	0.00	0.00
6975	P-3471	19.00	6.10	130.00	Open	1.28	1057.69	1057.69	0.00	0.00
6978	P-3472	19.00	6.10	130.00	Open	1.08	1056.92	1056.92	0.00	0.00
6981	P-3473	21.00	6.10	130.00	Open	-0.08	1058.13	1058.13	0.00	0.00
6983	P-3474	21.00	6.10	130.00	Open	0.68	981.47	981.47	0.00	0.00
6985	P-3475	22.00	6.10	130.00	Open	0.48	1060.04	1060.04	0.00	0.00
6987	P-3476	24.00	6.10	130.00	Open	0.68	1058.16	1058.16	0.00	0.00
6990	P-3477	24.00	6.10	130.00	Open	-1.68	1061.64	1061.64	0.00	0.00
6992	P-3478	28.00	6.10	130.00	Open	0.08	1061.42	1061.42	0.00	0.00
6995	P-3479	24.00	6.10	130.00	Open	0.48	1061.62	1061.62	0.00	0.00
6998	P-3480	24.00	6.10	130.00	Open	-0.68	1063.38	1063.38	0.00	0.00
7001	P-3481	24.00	6.10	130.00	Open	0.08	1057.83	1057.83	0.00	0.00
7003	P-3482	25.00	6.10	130.00	Open	0.08	1059.78	1059.78	0.00	0.00
7005	P-3483	25.00	6.10	130.00	Open	0.88	1059.82	1059.82	0.00	0.00
7008	P-3484	26.00	6.10	130.00	Open	0.68	1057.78	1057.78	0.00	0.00
7011	P-3485	27.00	6.10	130.00	Open	0.28	1059.63	1059.63	0.00	0.00
7013	P-3486	27.00	6.10	130.00	Open	-0.20	1218.24	1218.24	0.00	0.00
7015	P-3487	27.00	6.10	130.00	Open	0.08	1057.83	1057.83	0.00	0.00
7017	P-3488	28.00	6.10	130.00	Open	0.48	1064.62	1064.62	0.00	0.00
7020	P-3489	28.00	6.10	130.00	Open	0.08	1057.45	1057.45	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7022	P-3490	29.00	6.10	130.00	Open	0.08	1060.27	1060.27	0.00	0.00
7024	P-3491	31.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7026	P-3492	31.00	6.10	130.00	Open	-1.48	1057.58	1057.58	0.00	0.00
7028	P-3493	33.00	6.10	130.00	Open	0.48	1061.36	1061.36	0.00	0.00
7030	P-3494	34.00	6.10	130.00	Open	0.08	1063.25	1063.25	0.00	0.00
7032	P-3495	34.00	6.10	130.00	Open	0.08	1062.90	1062.90	0.00	0.00
7034	P-3496	34.00	6.10	130.00	Open	0.68	1059.85	1059.85	0.00	0.00
7037	P-3497	34.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7039	P-3498	34.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7041	P-3499	35.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7043	P-3500	35.00	6.10	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7045	P-3501	36.00	6.10	130.00	Open	-1.28	963.94	963.94	0.00	0.00
7047	P-3502	38.00	6.10	130.00	Open	-0.88	1059.85	1059.85	0.00	0.00
7050	P-3503	38.00	6.10	130.00	Open	0.68	1059.85	1059.85	0.00	0.00
7053	P-3504	38.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
7055	P-3505	38.00	6.10	130.00	Open	1.28	1057.82	1057.82	0.00	0.00
7057	P-3506	40.00	6.10	130.00	Open	0.28	1060.80	1060.80	0.00	0.00
7059	P-3507	42.00	6.10	130.00	Open	0.68	1060.80	1060.80	0.00	0.00
7061	P-3508	43.00	6.10	130.00	Open	0.08	1063.25	1063.25	0.00	0.00
7063	P-3509	47.00	6.10	130.00	Open	0.08	1064.07	1064.07	0.00	0.00
7065	P-3510	47.00	6.10	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
7067	P-3511	48.00	6.10	130.00	Open	1.68	1057.68	1057.68	0.00	0.00
7070	P-3512	50.00	6.10	130.00	Open	1.08	1058.43	1058.43	0.00	0.00
7073	P-3513	52.00	6.10	130.00	Open	0.08	1061.07	1061.07	0.00	0.00
7076	P-3514	54.00	6.10	130.00	Open	0.08	1062.90	1062.90	0.00	0.00
7078	P-3515	54.00	6.10	130.00	Open	-0.29	1216.98	1216.98	0.00	0.00
7081	P-3516	56.00	6.10	130.00	Open	0.08	1064.76	1064.76	0.00	0.00
7083	P-3517	63.00	6.10	130.00	Open	-0.20	1217.08	1217.08	0.00	0.00
7085	P-3518	63.00	6.10	130.00	Open	0.08	1063.22	1063.22	0.00	0.00
7087	P-3519	66.00	6.10	130.00	Open	0.28	1059.03	1059.03	0.00	0.00
7089	P-3520	74.00	6.10	130.00	Open	0.08	1062.30	1062.30	0.00	0.00
7091	P-3521	74.00	6.10	130.00	Open	0.28	1064.13	1064.13	0.00	0.00
7093	P-3522	89.00	6.10	130.00	Open	0.88	1060.04	1060.04	0.00	0.00
7095	P-3523	106.00	6.10	130.00	Open	0.08	1061.90	1061.90	0.00	0.00
7097	P-3524	190.00	6.10	130.00	Open	0.48	1061.21	1061.21	0.00	0.00
7099	P-3525	1.00	8.00	130.00	Open	2.41	1057.96	1057.96	0.00	0.00
7105	P-3527	2.00	8.00	130.00	Open	0.08	1057.42	1057.42	0.00	0.00
7107	P-3528	2.00	8.00	130.00	Open	0.20	1217.85	1217.85	0.00	0.00
7110	P-3529	3.00	8.00	130.00	Open	95.88	1059.36	1059.35	0.00	0.00
7112	P-3530	3.00	8.00	130.00	Open	2.99	1060.45	1060.45	0.00	0.00
7114	P-3531	3.00	8.00	130.00	Open	0.08	1063.38	1063.38	0.00	0.00
7116	P-3532	3.00	8.00	130.00	Open	0.08	1064.60	1064.60	0.00	0.00
7119	P-3533	3.00	8.00	130.00	Open	-0.08	1057.40	1057.40	0.00	0.00
7121	P-3534	3.00	8.00	130.00	Open	26.67	1218.14	1218.14	0.00	0.00
7123	P-3535	4.00	8.00	130.00	Open	-49.57	1061.02	1061.02	0.00	0.00
7125	P-3536	4.00	8.00	130.00	Open	0.48	1061.85	1061.85	0.00	0.00
7128	P-3537	4.00	8.00	130.00	Open	1.92	1218.02	1218.02	0.00	0.00
7129	P-3538	4.00	8.00	130.00	Open	2.44	1060.80	1060.80	0.00	0.00
7131	P-3539	5.00	8.00	130.00	Open	0.08	1057.40	1057.40	0.00	0.00
7134	P-3540	4.00	8.00	130.00	Open	0.08	1057.83	1057.83	0.00	0.00
7136	P-3541	4.00	8.00	130.00	Open	0.08	1059.35	1059.35	0.00	0.00
7138	P-3542	4.00	8.00	130.00	Open	0.20	1217.85	1217.85	0.00	0.00
7140	P-3543	5.00	8.00	130.00	Open	96.23	1059.36	1059.36	0.00	0.00
7142	P-3544	5.00	8.00	130.00	Open	0.08	1064.60	1064.60	0.00	0.00
7145	P-3545	5.00	8.00	130.00	Open	1.23	1058.74	1058.74	0.00	0.00
7147	P-3546	5.00	8.00	130.00	Open	84.28	1061.66	1061.66	0.00	0.00
7150	P-3547	6.00	8.00	130.00	Open	0.08	1064.21	1064.21	0.00	0.00
7152	P-3548	6.00	8.00	130.00	Open	0.08	1059.93	1059.93	0.00	0.00
7154	P-3549	6.00	8.00	130.00	Open	0.11	1322.98	1322.98	0.00	0.00
7156	P-3550	6.00	8.00	130.00	Open	0.48	1060.94	1060.94	0.00	0.00
7159	P-3551	7.00	8.00	130.00	Open	0.08	1059.35	1059.35	0.00	0.00
7161	P-3552	7.00	8.00	130.00	Open	-2.47	1218.03	1218.03	0.00	0.00
7163	P-3553	7.00	8.00	130.00	Open	220.82	1059.34	1059.33	0.01	0.00
7164	P-3554	7.00	8.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
7166	P-3555	7.00	8.00	130.00	Open	2.44	1059.94	1059.94	0.00	0.00
7167	P-3556	7.00	8.00	130.00	Open	220.78	1059.05	1059.05	0.01	0.00
7168	P-3557	7.00	8.00	130.00	Open	-0.28	1064.63	1064.63	0.00	0.00
7170	P-3558	7.00	8.00	130.00	Open	37.36	1060.94	1060.94	0.00	0.00
7171	P-3559	7.00	8.00	130.00	Open	0.08	1059.93	1059.93	0.00	0.00
7174	P-3560	7.00	8.00	130.00	Open	0.48	1064.63	1064.63	0.00	0.00
7176	P-3561	8.00	8.00	130.00	Open	-48.34	1063.46	1063.46	0.00	0.00
7177	P-3562	8.00	8.00	130.00	Open	13.44	1058.75	1058.75	0.00	0.00
7178	P-3563	8.00	8.00	130.00	Open	6.38	1060.84	1060.84	0.00	0.00
7179	P-3564	8.00	8.00	130.00	Open	0.08	1061.61	1061.61	0.00	0.00
7181	P-3565	8.00	8.00	130.00	Open	0.28	1060.02	1060.02	0.00	0.00
7183	P-3566	8.00	8.00	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7185	P-3567	8.00	8.00	130.00	Open	-0.28	1064.63	1064.63	0.00	0.00
7187	P-3568	8.00	8.00	130.00	Open	0.08	1064.62	1064.62	0.00	0.00
7189	P-3569	8.00	8.00	130.00	Open	6.72	1058.76	1058.76	0.00	0.00
7191	P-3570	9.00	8.00	130.00	Open	4.96	1059.35	1059.35	0.00	0.00
7192	P-3571	9.00	8.00	130.00	Open	0.20	1218.20	1218.20	0.00	0.00
7195	P-3572	9.00	8.00	130.00	Open	0.08	1057.41	1057.41	0.00	0.00
7198	P-3573	9.00	8.00	130.00	Open	-0.08	1064.63	1064.63	0.00	0.00
7200	P-3574	9.00	8.00	130.00	Open	-0.76	1060.45	1060.45	0.00	0.00
7201	P-3575	9.00	8.00	130.00	Open	0.28	1064.63	1064.63	0.00	0.00
7203	P-3576	9.00	8.00	130.00	Open	0.48	1060.02	1060.02	0.00	0.00
7205	P-3577	9.00	8.00	130.00	Open	-9.48	1060.84	1060.84	0.00	0.00
7207	P-3578	10.00	8.00	130.00	Open	15.37	967.36	967.36	0.00	0.00
7208	P-3579	10.00	8.00	130.00	Open	7.63	1059.35	1059.35	0.00	0.00
7210	P-3580	10.00	8.00	130.00	Open	0.28	1064.63	1064.63	0.00	0.00
7212	P-3581	10.00	8.00	130.00	Open	-4.81	1057.41	1057.41	0.00	0.00
7214	P-3582	10.00	8.00	130.00	Open	0.20	988.99	988.99	0.00	0.00
7217	P-3583	10.00	8.00	130.00	Open	0.08	1059.38	1059.38	0.00	0.00
7220	P-3584	10.00	8.00	130.00	Open	0.20	1217.75	1217.75	0.00	0.00
7222	P-3585	10.00	8.00	130.00	Open	3.47	1064.11	1064.11	0.00	0.00
7224	P-3586	10.00	8.00	130.00	Open	0.08	1058.76	1058.76	0.00	0.00
7226	P-3587	10.00	8.00	130.00	Open	0.43	1058.64	1058.64	0.00	0.00
7949	P-3588	338.00	8.00	130.00	Open	-2.24	1057.93	1057.93	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7950	P-3589	339.00	8.00	130.00	Open	-7.26	988.99	988.99	0.00	0.00
7952	P-3590	338.00	8.00	130.00	Open	6.42	1060.84	1060.84	0.00	0.00
7954	P-3591	343.00	8.00	130.00	Open	2.99	1217.85	1217.85	0.00	0.00
7955	P-3592	340.00	8.00	130.00	Open	3.13	1061.85	1061.85	0.00	0.00
7956	P-3593	341.00	8.00	130.00	Open	-16.54	1058.77	1058.77	0.00	0.00
7957	P-3594	345.00	8.00	130.00	Open	50.60	1060.89	1060.86	0.03	0.00
7958	P-3595	344.00	8.00	130.00	Open	1.03	1059.93	1059.93	0.00	0.00
7959	P-3596	386.00	8.00	130.00	Open	-4.25	1057.41	1057.41	0.00	0.00
7960	P-3597	344.00	8.00	130.00	Open	-7.01	1057.67	1057.67	0.00	0.00
7961	P-3598	354.00	8.00	130.00	Open	-38.37	1060.87	1060.89	0.02	0.00
7962	P-3599	347.00	8.00	130.00	Open	-7.26	1218.11	1218.11	0.00	0.00
7963	P-3600	348.00	8.00	130.00	Open	9.06	1064.63	1064.63	0.00	0.00
7964	P-3601	363.00	8.00	130.00	Open	1.76	1060.08	1060.08	0.00	0.00
7965	P-3602	362.00	8.00	130.00	Open	-19.88	1059.33	1059.33	0.00	0.00
7967	P-3603	355.00	8.00	130.00	Open	1.03	1061.85	1061.85	0.00	0.00
7968	P-3604	393.00	8.00	130.00	Open	-8.16	1058.69	1058.69	0.00	0.00
7969	P-3605	358.00	8.00	130.00	Open	5.72	1061.85	1061.85	0.00	0.00
7970	P-3606	356.00	8.00	130.00	Open	3.44	1057.40	1057.40	0.00	0.00
7971	P-3607	357.00	8.00	130.00	Open	5.51	1218.03	1218.03	0.00	0.00
7972	P-3608	357.00	8.00	130.00	Open	11.40	1060.92	1060.91	0.00	0.00
7973	P-3609	361.00	8.00	130.00	Open	45.66	1063.98	1063.95	0.02	0.00
7974	P-3610	356.00	8.00	130.00	Open	34.09	1057.45	1057.44	0.01	0.00
7976	P-3611	357.00	8.00	130.00	Open	0.36	1057.42	1057.42	0.00	0.00
7978	P-3612	360.00	8.00	130.00	Open	25.34	1063.39	1063.38	0.01	0.00
7979	P-3613	359.00	8.00	130.00	Open	24.27	1059.97	1059.96	0.01	0.00
7980	P-3614	402.00	8.00	130.00	Open	-16.47	1064.85	1064.85	0.00	0.00
7981	P-3615	373.00	8.00	130.00	Open	1.84	1064.62	1064.62	0.00	0.00
7982	P-3616	361.00	8.00	130.00	Open	-15.32	1061.62	1061.62	0.00	0.00
7984	P-3617	364.00	8.00	130.00	Open	-10.12	1059.94	1059.94	0.00	0.00
7985	P-3618	364.00	8.00	130.00	Open	-9.43	1059.00	1059.00	0.00	0.00
7987	P-3619	613.00	8.00	130.00	Open	72.11	1058.62	1058.54	0.09	0.00
7988	P-3620	366.00	8.00	130.00	Open	9.51	1061.62	1061.62	0.00	0.00
7989	P-3621	385.00	8.00	130.00	Open	2.52	1064.11	1064.11	0.00	0.00
7990	P-3622	381.00	8.00	130.00	Open	6.04	1063.37	1063.37	0.00	0.00
7991	P-3623	370.00	8.00	130.00	Open	35.66	1063.08	1063.07	0.01	0.00
7992	P-3624	372.00	8.00	130.00	Open	4.71	1063.38	1063.38	0.00	0.00
7993	P-3625	374.00	8.00	130.00	Open	6.79	1063.37	1063.37	0.00	0.00
7994	P-3626	413.00	8.00	130.00	Open	15.38	1060.84	1060.84	0.00	0.00
7995	P-3627	380.00	8.00	130.00	Open	0.48	1061.62	1061.62	0.00	0.00
7997	P-3628	376.00	8.00	130.00	Open	29.54	1057.70	1057.69	0.01	0.00
7998	P-3629	379.00	8.00	130.00	Open	2.59	1061.62	1061.62	0.00	0.00
7999	P-3630	388.00	8.00	130.00	Open	8.32	1058.75	1058.75	0.00	0.00
8000	P-3631	415.00	8.00	130.00	Open	6.69	1059.43	1059.43	0.00	0.00
8001	P-3632	384.00	8.00	130.00	Open	11.01	1061.62	1061.61	0.00	0.00
8002	P-3633	383.00	8.00	130.00	Open	0.63	1057.83	1057.83	0.00	0.00
8003	P-3634	383.00	8.00	130.00	Open	-1.20	1218.03	1218.03	0.00	0.00
8004	P-3635	383.00	8.00	130.00	Open	24.64	1060.81	1060.80	0.01	0.00
8005	P-3636	384.00	8.00	130.00	Open	20.85	1059.73	1059.73	0.01	0.00
8006	P-3637	446.00	8.00	130.00	Open	-5.87	1060.82	1060.82	0.00	0.00
8007	P-3638	384.00	8.00	130.00	Open	-10.28	1059.94	1059.94	0.00	0.00
8008	P-3639	392.00	8.00	130.00	Open	28.35	1218.20	1218.19	0.01	0.00
8009	P-3640	391.00	8.00	130.00	Open	-37.31	1057.82	1057.84	0.02	0.00
8010	P-3641	393.00	8.00	130.00	Open	2.44	1061.66	1061.66	0.00	0.00
8011	P-3642	492.00	8.00	130.00	Open	1.81	1057.40	1057.40	0.00	0.00
8012	P-3643	395.00	8.00	130.00	Open	4.83	1057.42	1057.42	0.00	0.00
8013	P-3644	415.00	8.00	130.00	Open	3.24	1061.61	1061.61	0.00	0.00
8014	P-3645	398.00	8.00	130.00	Open	22.16	1058.76	1058.75	0.01	0.00
8016	P-3646	406.00	8.00	130.00	Open	38.11	1060.96	1060.94	0.02	0.00
8017	P-3647	398.00	8.00	130.00	Open	40.74	1057.91	1057.90	0.02	0.00
8018	P-3648	428.00	8.00	130.00	Open	21.29	1059.28	1059.27	0.01	0.00
8019	P-3649	414.00	8.00	130.00	Open	1.64	1061.75	1061.75	0.00	0.00
8020	P-3650	408.00	8.00	130.00	Open	19.85	1063.39	1063.38	0.01	0.00
8021	P-3651	423.00	8.00	130.00	Open	1.08	1061.66	1061.66	0.00	0.00
8023	P-3652	410.00	8.00	130.00	Open	16.20	1057.55	1057.54	0.00	0.00
8024	P-3653	407.00	8.00	130.00	Open	13.31	1063.38	1063.38	0.00	0.00
8025	P-3654	405.00	8.00	130.00	Open	-23.79	1061.61	1061.62	0.01	0.00
8026	P-3655	409.00	8.00	130.00	Open	-10.49	1060.97	1060.97	0.00	0.00
8027	P-3656	406.00	8.00	130.00	Open	9.20	981.48	981.48	0.00	0.00
8028	P-3657	407.00	8.00	130.00	Open	-37.95	1061.64	1061.66	0.02	0.00
8029	P-3658	409.00	8.00	130.00	Open	28.75	1218.21	1218.20	0.01	0.00
8030	P-3659	410.00	8.00	130.00	Open	10.13	1059.73	1059.73	0.00	0.00
8031	P-3660	421.00	8.00	130.00	Open	5.51	1059.00	1059.00	0.00	0.00
8032	P-3661	421.00	8.00	130.00	Open	23.14	1064.87	1064.87	0.01	0.00
8033	P-3662	412.00	8.00	130.00	Open	6.05	1064.62	1064.62	0.00	0.00
8034	P-3663	416.00	8.00	130.00	Open	14.48	1064.85	1064.85	0.00	0.00
8035	P-3664	453.00	8.00	130.00	Open	-0.08	1064.62	1064.62	0.00	0.00
8037	P-3665	412.00	8.00	130.00	Open	5.36	1060.82	1060.82	0.00	0.00
8038	P-3666	555.00	8.00	130.00	Open	0.28	1061.75	1061.75	0.00	0.00
8040	P-3667	415.00	8.00	130.00	Open	-0.91	1057.59	1057.59	0.00	0.00
8041	P-3668	415.00	8.00	130.00	Open	9.02	1057.69	1057.68	0.00	0.00
8042	P-3669	440.00	8.00	130.00	Open	1.65	1061.61	1061.61	0.00	0.00
8043	P-3670	453.00	8.00	130.00	Open	-8.82	1060.84	1060.84	0.00	0.00
8044	P-3671	420.00	8.00	130.00	Open	-30.30	1057.42	1057.44	0.01	0.00
8045	P-3672	477.00	8.00	130.00	Open	-3.12	1218.02	1218.02	0.00	0.00
8046	P-3673	423.00	8.00	130.00	Open	-8.72	1057.40	1057.40	0.00	0.00
8047	P-3674	425.00	8.00	130.00	Open	0.66	1057.83	1057.83	0.00	0.00
8048	P-3675	453.00	8.00	130.00	Open	4.71	1064.62	1064.62	0.00	0.00
8049	P-3676	441.00	8.00	130.00	Open	-112.25	1057.47	1057.61	0.14	0.00
8050	P-3677	427.00	8.00	130.00	Open	-69.67	1057.87	1057.93	0.06	0.00
8051	P-3678	434.00	8.00	130.00	Open	10.72	1063.30	1063.30	0.00	0.00
8052	P-3679	427.00	8.00	130.00	Open	74.64	1061.61	1061.54	0.06	0.00
8053	P-3680	433.00	8.00	130.00	Open	13.34	1057.77	1057.77	0.00	0.00
8054	P-3681	432.00	8.00	130.00	Open	22.89	1058.77	1058.77	0.01	0.00
8055	P-3682	431.00	8.00	130.00	Open	-1.15	1057.68	1057.68	0.00	0.00
8056	P-3683	432.00	8.00	130.00	Open	-26.13	1060.01	1060.01	0.01	0.00
8057	P-3684	437.00	8.00	130.00	Open	-1.48	1218.03	1218.03	0.00	0.00
8058	P-3685	436.00	8.00	130.00	Open	10.96	1064.87	1064.87	0.00	0.00
8059	P-3686	439.00	8.00	130.00	Open	0.20	1218.02	1218.02	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8061	P-3687	434.00	8.00	130.00	Open	3.32	1058.66	1058.66	0.00	0.00
8063	P-3688	452.00	8.00	130.00	Open	1.28	1058.69	1058.69	0.00	0.00
8065	P-3689	467.00	8.00	130.00	Open	3.36	1061.62	1061.62	0.00	0.00
8066	P-3690	437.00	8.00	130.00	Open	-0.23	1061.38	1061.38	0.00	0.00
8067	P-3691	438.00	8.00	130.00	Open	97.34	1059.49	1059.38	0.11	0.00
8068	P-3692	444.00	8.00	130.00	Open	14.05	1057.46	1057.46	0.00	0.00
8070	P-3693	514.00	8.00	130.00	Open	-2.32	1060.45	1060.45	0.00	0.00
8071	P-3694	446.00	8.00	130.00	Open	-1.23	1060.80	1060.80	0.00	0.00
8072	P-3695	451.00	8.00	130.00	Open	-5.00	1063.91	1063.91	0.00	0.00
8073	P-3696	517.00	8.00	130.00	Open	-45.25	1061.64	1061.68	0.03	0.00
8074	P-3697	452.00	8.00	130.00	Open	31.90	1057.46	1057.45	0.01	0.00
8075	P-3698	452.00	8.00	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
8077	P-3699	454.00	8.00	130.00	Open	1.23	1059.53	1059.53	0.00	0.00
8078	P-3700	467.00	8.00	130.00	Open	-6.45	1060.84	1060.84	0.00	0.00
8079	P-3701	457.00	8.00	130.00	Open	8.28	1057.42	1057.42	0.00	0.00
8080	P-3702	457.00	8.00	130.00	Open	-1.74	1057.41	1057.41	0.00	0.00
8081	P-3703	484.00	8.00	130.00	Open	5.91	1217.75	1217.75	0.00	0.00
8082	P-3704	464.00	8.00	130.00	Open	-2.04	1059.96	1059.96	0.00	0.00
8083	P-3705	464.00	8.00	130.00	Open	28.44	1060.82	1060.81	0.01	0.00
8084	P-3706	462.00	8.00	130.00	Open	10.84	1060.91	1060.91	0.00	0.00
8085	P-3707	464.00	8.00	130.00	Open	24.64	1057.79	1057.78	0.01	0.00
8086	P-3708	466.00	8.00	130.00	Open	47.58	1063.46	1063.43	0.03	0.00
8087	P-3709	464.00	8.00	130.00	Open	-0.88	1060.83	1060.83	0.00	0.00
8089	P-3710	519.00	8.00	130.00	Open	11.18	1057.69	1057.69	0.00	0.00
8090	P-3711	487.00	8.00	130.00	Open	-20.12	1059.96	1059.96	0.01	0.00
8091	P-3712	476.00	8.00	130.00	Open	-60.60	1061.05	1061.10	0.05	0.00
8092	P-3713	485.00	8.00	130.00	Open	8.21	1060.85	1060.84	0.00	0.00
8093	P-3714	482.00	8.00	130.00	Open	3.72	1059.43	1059.43	0.00	0.00
8094	P-3715	472.00	8.00	130.00	Open	23.36	1057.52	1057.51	0.01	0.00
8095	P-3716	477.00	8.00	130.00	Open	9.79	1059.35	1059.35	0.00	0.00
8096	P-3717	473.00	8.00	130.00	Open	7.16	1064.63	1064.62	0.00	0.00
8097	P-3718	504.00	8.00	130.00	Open	4.40	1059.27	1059.27	0.00	0.00
8098	P-3719	476.00	8.00	130.00	Open	3.05	1057.46	1057.46	0.00	0.00
8099	P-3720	551.00	8.00	130.00	Open	20.52	1057.78	1057.77	0.01	0.00
8100	P-3721	520.00	8.00	130.00	Open	-0.19	1057.68	1057.68	0.00	0.00
8101	P-3722	482.00	8.00	130.00	Open	127.01	1060.16	1059.96	0.19	0.00
8102	P-3723	479.00	8.00	130.00	Open	7.77	1061.66	1061.66	0.00	0.00
8103	P-3724	479.00	8.00	130.00	Open	-3.25	1057.41	1057.41	0.00	0.00
8104	P-3725	486.00	8.00	130.00	Open	0.35	1218.15	1218.15	0.00	0.00
8105	P-3726	503.00	8.00	130.00	Open	20.68	1058.64	1058.63	0.01	0.00
8106	P-3727	483.00	8.00	130.00	Open	84.60	1059.31	1059.22	0.09	0.00
8107	P-3728	509.00	8.00	130.00	Open	3.04	1057.76	1057.76	0.00	0.00
8108	P-3729	652.00	8.00	130.00	Open	0.17	1057.96	1057.96	0.00	0.00
8109	P-3730	495.00	8.00	130.00	Open	3.27	1058.02	1058.02	0.00	0.00
8110	P-3731	507.00	8.00	130.00	Open	-19.17	1060.84	1060.85	0.01	0.00
8111	P-3732	506.00	8.00	130.00	Closed	0.00	963.94	1060.97	0.00	0.00
8112	P-3733	508.00	8.00	130.00	Open	9.26	1060.80	1060.80	0.00	0.00
8113	P-3734	489.00	8.00	130.00	Open	-0.28	1058.68	1058.68	0.00	0.00
8115	P-3735	490.00	8.00	130.00	Open	20.31	1063.38	1063.37	0.01	0.00
8116	P-3736	496.00	8.00	130.00	Open	80.66	1058.81	1058.73	0.09	0.00
8117	P-3737	505.00	8.00	130.00	Open	37.83	1063.10	1063.08	0.02	0.00
8118	P-3738	498.00	8.00	130.00	Open	-3.71	1057.42	1057.42	0.00	0.00
8119	P-3739	509.00	8.00	130.00	Open	-8.01	1057.81	1057.81	0.00	0.00
8120	P-3740	497.00	8.00	130.00	Open	28.89	1057.54	1057.52	0.01	0.00
8121	P-3741	498.00	8.00	130.00	Open	-22.49	1060.85	1060.86	0.01	0.00
8122	P-3742	499.00	8.00	130.00	Open	7.26	1058.76	1058.76	0.00	0.00
8123	P-3743	500.00	8.00	130.00	Open	-24.45	1060.86	1060.87	0.01	0.00
8124	P-3744	502.00	8.00	130.00	Open	-36.63	1057.45	1057.47	0.02	0.00
8125	P-3745	503.00	8.00	130.00	Open	8.12	1058.70	1058.69	0.00	0.00
8126	P-3746	507.00	8.00	130.00	Open	16.11	981.48	981.48	0.00	0.00
8127	P-3747	538.00	8.00	130.00	Open	1.23	1063.38	1063.38	0.00	0.00
8128	P-3748	547.00	8.00	130.00	Open	2.11	1058.02	1058.02	0.00	0.00
8129	P-3749	508.00	8.00	130.00	Open	66.69	1058.02	1057.96	0.06	0.00
8130	P-3750	514.00	8.00	130.00	Open	-8.68	1218.03	1218.03	0.00	0.00
8131	P-3751	515.00	8.00	130.00	Open	21.31	1059.74	1059.74	0.01	0.00
8132	P-3752	525.00	8.00	130.00	Open	3.35	1063.38	1063.38	0.00	0.00
8133	P-3753	514.00	8.00	130.00	Open	-1.51	1059.53	1059.53	0.00	0.00
8134	P-3754	518.00	8.00	130.00	Open	3.88	1057.45	1057.45	0.00	0.00
8135	P-3755	514.00	8.00	130.00	Open	28.58	1061.62	1061.61	0.01	0.00
8136	P-3756	560.00	8.00	130.00	Open	67.25	1058.09	1058.02	0.07	0.00
8137	P-3757	537.00	8.00	130.00	Open	11.70	1060.84	1060.84	0.00	0.00
8138	P-3758	528.00	8.00	130.00	Open	24.97	1060.01	1059.99	0.01	0.00
8139	P-3759	566.00	8.00	130.00	Open	46.56	1061.12	1061.09	0.04	0.00
8140	P-3760	518.00	8.00	130.00	Open	19.58	1057.81	1057.81	0.01	0.00
8141	P-3761	530.00	8.00	130.00	Open	11.19	1060.84	1060.83	0.00	0.00
8142	P-3762	524.00	8.00	130.00	Open	31.71	1218.36	1218.34	0.02	0.00
8143	P-3763	521.00	8.00	130.00	Open	1.19	1059.93	1059.93	0.00	0.00
8144	P-3764	523.00	8.00	130.00	Open	19.94	1064.86	1064.86	0.01	0.00
8145	P-3765	548.00	8.00	130.00	Open	6.60	1064.62	1064.62	0.00	0.00
8146	P-3766	527.00	8.00	130.00	Open	4.81	1057.42	1057.42	0.00	0.00
8147	P-3767	530.00	8.00	130.00	Open	-21.99	1061.63	1061.64	0.01	0.00
8148	P-3768	533.00	8.00	130.00	Open	-37.87	1057.84	1057.86	0.02	0.00
8149	P-3769	535.00	8.00	130.00	Open	25.12	1057.91	1057.90	0.01	0.00
8150	P-3770	618.00	8.00	130.00	Open	1.08	1057.79	1057.79	0.00	0.00
8152	P-3771	601.00	8.00	130.00	Open	2.72	1060.08	1060.08	0.00	0.00
8153	P-3772	543.00	8.00	130.00	Open	-1.43	1063.37	1063.37	0.00	0.00
8154	P-3773	541.00	8.00	130.00	Open	-10.95	1059.00	1059.00	0.00	0.00
8155	P-3774	708.00	8.00	130.00	Open	10.51	1322.92	1322.92	0.00	0.00
8156	P-3775	541.00	8.00	130.00	Open	-110.48	1057.18	1057.34	0.17	0.00
8157	P-3776	543.00	8.00	130.00	Open	-35.75	1060.82	1060.85	0.02	0.00
8158	P-3777	541.00	8.00	130.00	Open	-2.27	1057.59	1057.59	0.00	0.00
8159	P-3778	543.00	8.00	130.00	Open	-22.78	1057.42	1057.42	0.01	0.00
8160	P-3779	546.00	8.00	130.00	Open	2.04	1057.79	1057.79	0.00	0.00
8161	P-3780	555.00	8.00	130.00	Open	7.30	1060.80	1060.80	0.00	0.00
8162	P-3781	551.00	8.00	130.00	Open	14.74	993.45	993.44	0.00	0.00
8163	P-3782	595.00	8.00	130.00	Open	-28.01	1057.40	1057.42	0.01	0.00
8164	P-3783	550.00	8.00	130.00	Open	45.46	1061.66	1061.62	0.03	0.00
8165	P-3784	551.00	8.00	130.00	Open	1.23	1059.93	1059.93	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8166	P-3785	553.00	8.00	130.00	Open	10.05	1064.84	1064.84	0.00	0.00
8167	P-3786	564.00	8.00	130.00	Open	5.42	1060.84	1060.84	0.00	0.00
8168	P-3787	571.00	8.00	130.00	Open	9.63	1058.95	1058.95	0.00	0.00
8169	P-3788	612.00	8.00	130.00	Open	-6.13	1064.87	1064.87	0.00	0.00
8170	P-3789	556.00	8.00	130.00	Open	1.71	1064.21	1064.21	0.00	0.00
8171	P-3790	608.00	8.00	130.00	Open	-8.77	1057.67	1057.67	0.00	0.00
8172	P-3791	713.00	8.00	130.00	Open	2.19	1064.62	1064.62	0.00	0.00
8173	P-3792	581.00	8.00	130.00	Open	-62.49	1056.74	1056.80	0.06	0.00
8174	P-3793	572.00	8.00	130.00	Open	16.78	1058.77	1058.76	0.01	0.00
8175	P-3794	563.00	8.00	130.00	Open	7.74	1057.80	1057.80	0.00	0.00
8176	P-3795	569.00	8.00	130.00	Open	0.76	1060.04	1060.04	0.00	0.00
8177	P-3796	583.00	8.00	130.00	Open	-8.41	1057.83	1057.83	0.00	0.00
8178	P-3797	565.00	8.00	130.00	Open	82.53	1058.74	1058.64	0.10	0.00
8179	P-3798	568.00	8.00	130.00	Open	-1.87	1059.82	1059.82	0.00	0.00
8180	P-3799	585.00	8.00	130.00	Open	-15.26	981.48	981.49	0.00	0.00
8181	P-3800	569.00	8.00	130.00	Open	42.43	1058.82	1058.79	0.03	0.00
8182	P-3801	588.00	8.00	130.00	Open	5.23	1059.16	1059.16	0.00	0.00
8183	P-3802	574.00	8.00	130.00	Open	-0.60	1059.82	1059.82	0.00	0.00
8184	P-3803	601.00	8.00	130.00	Open	-16.83	1057.80	1057.80	0.01	0.00
8185	P-3804	577.00	8.00	130.00	Open	27.16	1218.16	1218.14	0.01	0.00
8186	P-3805	583.00	8.00	130.00	Open	34.04	1060.91	1060.89	0.02	0.00
8187	P-3806	575.00	8.00	130.00	Open	66.44	1061.29	1061.22	0.07	0.00
7708	P-3807	146.00	8.00	130.00	Open	0.10	1057.68	1057.68	0.00	0.00
7710	P-3808	147.00	8.00	130.00	Open	0.20	1216.98	1216.98	0.00	0.00
7712	P-3809	147.00	8.00	130.00	Open	0.08	1060.45	1060.45	0.00	0.00
7714	P-3810	148.00	8.00	130.00	Open	-8.12	1064.10	1064.10	0.00	0.00
7715	P-3811	149.00	8.00	130.00	Open	-0.68	1059.96	1059.96	0.00	0.00
7717	P-3812	153.00	8.00	130.00	Open	-50.32	1061.02	1061.04	0.01	0.00
7718	P-3813	166.00	8.00	130.00	Open	58.72	1061.95	1061.93	0.02	0.00
7719	P-3814	156.00	8.00	130.00	Open	3.27	1057.42	1057.42	0.00	0.00
7720	P-3815	158.00	8.00	130.00	Open	-0.88	1058.69	1058.69	0.00	0.00
7722	P-3816	162.00	8.00	130.00	Open	4.43	1059.26	1059.26	0.00	0.00
7723	P-3817	163.00	8.00	130.00	Open	-1.44	1058.69	1058.69	0.00	0.00
7725	P-3818	166.00	8.00	130.00	Open	0.28	1064.84	1064.84	0.00	0.00
7727	P-3819	164.00	8.00	130.00	Open	0.28	1057.51	1057.51	0.00	0.00
7729	P-3820	164.00	8.00	130.00	Open	0.43	1061.61	1061.61	0.00	0.00
7730	P-3821	165.00	8.00	130.00	Open	10.47	1061.62	1061.62	0.00	0.00
7731	P-3822	165.00	8.00	130.00	Open	-0.28	1060.82	1060.82	0.00	0.00
7734	P-3823	167.00	8.00	130.00	Open	2.95	1061.02	1061.02	0.00	0.00
7735	P-3824	167.00	8.00	130.00	Open	21.39	1058.64	1058.64	0.00	0.00
7736	P-3825	169.00	8.00	130.00	Open	-22.63	1064.63	1064.63	0.00	0.00
7738	P-3826	172.00	8.00	130.00	Open	3.71	981.48	981.48	0.00	0.00
7739	P-3827	170.00	8.00	130.00	Open	17.70	1217.76	1217.76	0.00	0.00
7740	P-3828	171.00	8.00	130.00	Open	3.95	981.48	981.48	0.00	0.00
7743	P-3829	172.00	8.00	130.00	Open	-5.71	1060.82	1060.82	0.00	0.00
7744	P-3830	175.00	8.00	130.00	Open	-36.29	1057.82	1057.82	0.01	0.00
7745	P-3831	176.00	8.00	130.00	Open	3.67	1057.76	1057.76	0.00	0.00
7746	P-3832	219.00	8.00	130.00	Open	0.23	1060.01	1060.01	0.00	0.00
7747	P-3833	180.00	8.00	130.00	Open	95.25	1062.04	1061.99	0.04	0.00
7748	P-3834	200.00	8.00	130.00	Open	18.58	1064.86	1064.86	0.00	0.00
7749	P-3835	183.00	8.00	130.00	Open	0.43	1057.51	1057.51	0.00	0.00
7750	P-3836	183.00	8.00	130.00	Open	-22.63	1064.63	1064.63	0.00	0.00
7751	P-3837	185.00	8.00	130.00	Open	-2.51	1059.82	1059.82	0.00	0.00
7752	P-3838	188.00	8.00	130.00	Open	-16.57	1057.40	1057.40	0.00	0.00
7753	P-3839	186.00	8.00	130.00	Open	-111.29	1057.41	1057.47	0.06	0.00
7754	P-3840	199.00	8.00	130.00	Open	-140.23	1057.66	1057.75	0.10	0.00
7755	P-3841	187.00	8.00	130.00	Open	4.15	1059.93	1059.93	0.00	0.00
7756	P-3842	195.00	8.00	130.00	Open	20.33	1058.63	1058.63	0.00	0.00
7757	P-3843	187.00	8.00	130.00	Open	14.46	1063.38	1063.38	0.00	0.00
7759	P-3844	189.00	8.00	130.00	Open	2.04	1060.82	1060.82	0.00	0.00
7760	P-3845	190.00	8.00	130.00	Open	-4.15	1059.96	1059.96	0.00	0.00
7762	P-3846	189.00	8.00	130.00	Open	-50.98	1063.50	1063.52	0.01	0.00
7764	P-3847	190.00	8.00	130.00	Open	16.10	1057.42	1057.42	0.00	0.00
7766	P-3848	191.00	8.00	130.00	Open	10.09	1216.97	1216.97	0.00	0.00
7767	P-3849	191.00	8.00	130.00	Open	-5.52	1060.08	1060.08	0.00	0.00
7769	P-3850	191.00	8.00	130.00	Open	23.69	1060.80	1060.80	0.00	0.00
7771	P-3851	196.00	8.00	130.00	Open	-35.87	1057.45	1057.45	0.01	0.00
7772	P-3852	201.00	8.00	130.00	Open	19.56	963.96	963.95	0.00	0.00
7773	P-3853	202.00	8.00	130.00	Open	-0.28	994.76	994.76	0.00	0.00
7775	P-3854	202.00	8.00	130.00	Open	-10.49	994.76	994.76	0.00	0.00
7777	P-3855	246.00	8.00	130.00	Open	10.96	1064.87	1064.87	0.00	0.00
7779	P-3856	203.00	8.00	130.00	Open	5.17	1217.75	1217.75	0.00	0.00
7780	P-3857	230.00	8.00	130.00	Open	2.39	981.48	981.48	0.00	0.00
7781	P-3858	204.00	8.00	130.00	Open	16.66	1064.12	1064.12	0.00	0.00
7782	P-3859	207.00	8.00	130.00	Open	-4.55	1057.40	1057.40	0.00	0.00
7783	P-3860	206.00	8.00	130.00	Open	5.31	1059.94	1059.94	0.00	0.00
7785	P-3861	308.00	8.00	130.00	Open	1.48	1059.94	1059.94	0.00	0.00
7787	P-3862	208.00	8.00	130.00	Open	7.14	1059.53	1059.53	0.00	0.00
7788	P-3863	215.00	8.00	130.00	Open	-1.39	1058.68	1058.68	0.00	0.00
7789	P-3864	214.00	8.00	130.00	Open	41.07	1058.79	1058.78	0.01	0.00
7790	P-3865	213.00	8.00	130.00	Open	18.45	963.95	963.95	0.00	0.00
7791	P-3866	213.00	8.00	130.00	Open	-1.03	1058.68	1058.68	0.00	0.00
7793	P-3867	220.00	8.00	130.00	Open	4.76	1059.94	1059.94	0.00	0.00
7794	P-3868	220.00	8.00	130.00	Open	0.83	1063.38	1063.38	0.00	0.00
7796	P-3869	215.00	8.00	130.00	Open	-66.20	1057.85	1057.87	0.03	0.00
7798	P-3870	243.00	8.00	130.00	Open	11.52	1063.72	1063.72	0.00	0.00
7799	P-3871	217.00	8.00	130.00	Open	4.80	1063.37	1063.37	0.00	0.00
7800	P-3872	221.00	8.00	130.00	Open	-32.10	1060.08	1060.09	0.01	0.00
7801	P-3873	265.00	8.00	130.00	Open	46.21	1061.09	1061.07	0.02	0.00
7803	P-3874	234.00	8.00	130.00	Open	-1.56	1062.90	1062.90	0.00	0.00
7804	P-3875	216.00	8.00	130.00	Open	-4.55	994.76	994.76	0.00	0.00
7805	P-3876	217.00	8.00	130.00	Open	-112.04	1057.34	1057.41	0.07	0.00
7806	P-3877	336.00	8.00	130.00	Open	128.12	1060.33	1060.19	0.14	0.00
7807	P-3878	223.00	8.00	130.00	Open	9.53	1064.63	1064.63	0.00	0.00
7809	P-3879	219.00	8.00	130.00	Open	1.96	1059.43	1059.43	0.00	0.00
7810	P-3880	221.00	8.00	130.00	Open	-2.72	1057.40	1057.40	0.00	0.00
7811	P-3881	220.00	8.00	130.00	Open	0.48	1061.22	1061.22	0.00	0.00
7813	P-3882	221.00	8.00	130.00	Open	-0.88	1057.67	1057.67	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7815	P-3883	221.00	8.00	130.00	Open	0.84	1060.01	1060.01	0.00	0.00
7816	P-3884	225.00	8.00	130.00	Open	9.56	1064.12	1064.11	0.00	0.00
7817	P-3885	241.00	8.00	130.00	Open	4.37	1057.40	1057.40	0.00	0.00
7818	P-3886	225.00	8.00	130.00	Open	20.58	1057.42	1057.42	0.00	0.00
7820	P-3887	226.00	8.00	130.00	Open	0.48	1058.74	1058.74	0.00	0.00
7822	P-3888	234.00	8.00	130.00	Open	0.68	1216.98	1216.98	0.00	0.00
7823	P-3889	225.00	8.00	130.00	Open	50.47	1058.83	1058.82	0.02	0.00
7824	P-3890	225.00	8.00	130.00	Open	-3.20	1059.96	1059.96	0.00	0.00
7825	P-3891	226.00	8.00	130.00	Open	51.31	1058.16	1058.14	0.02	0.00
7826	P-3892	230.00	8.00	130.00	Open	3.35	1064.62	1064.62	0.00	0.00
7829	P-3893	233.00	8.00	130.00	Open	7.06	1058.76	1058.76	0.00	0.00
7830	P-3894	229.00	8.00	130.00	Open	-0.68	1059.85	1059.85	0.00	0.00
7832	P-3895	244.00	8.00	130.00	Open	-2.11	1062.90	1062.90	0.00	0.00
7833	P-3896	232.00	8.00	130.00	Open	7.72	1218.15	1218.15	0.00	0.00
7834	P-3897	247.00	8.00	130.00	Open	-10.74	1059.95	1059.95	0.00	0.00
7835	P-3898	240.00	8.00	130.00	Open	8.97	1059.26	1059.26	0.00	0.00
7836	P-3899	234.00	8.00	130.00	Open	15.94	1060.84	1060.84	0.00	0.00
7838	P-3900	233.00	8.00	130.00	Open	7.33	1218.15	1218.15	0.00	0.00
7839	P-3901	235.00	8.00	130.00	Open	48.43	1061.18	1061.16	0.02	0.00
7840	P-3902	238.00	8.00	130.00	Open	-6.04	1057.96	1057.96	0.00	0.00
7841	P-3903	237.00	8.00	130.00	Open	-16.19	1064.62	1064.63	0.00	0.00
7842	P-3904	241.00	8.00	130.00	Open	18.30	963.95	963.94	0.00	0.00
7843	P-3905	238.00	8.00	130.00	Open	-41.08	1063.90	1063.91	0.01	0.00
7844	P-3906	243.00	8.00	130.00	Open	16.59	963.94	963.94	0.00	0.00
7845	P-3907	241.00	8.00	130.00	Open	13.62	1060.84	1060.84	0.00	0.00
7846	P-3908	242.00	8.00	130.00	Open	-21.11	1057.81	1057.81	0.00	0.00
7847	P-3909	246.00	8.00	130.00	Open	69.36	1061.32	1061.29	0.03	0.00
7848	P-3910	247.00	8.00	130.00	Open	3.69	1061.61	1061.61	0.00	0.00
7849	P-3911	245.00	8.00	130.00	Open	6.49	1322.92	1322.92	0.00	0.00
7850	P-3912	247.00	8.00	130.00	Open	14.40	1058.75	1058.75	0.00	0.00
7851	P-3913	248.00	8.00	130.00	Open	18.53	1057.46	1057.46	0.00	0.00
7853	P-3914	260.00	8.00	130.00	Open	-75.10	1060.34	1060.38	0.04	0.00
7854	P-3915	252.00	8.00	130.00	Open	17.86	1057.42	1057.42	0.00	0.00
7855	P-3916	258.00	8.00	130.00	Open	-1.84	1057.40	1057.40	0.00	0.00
7856	P-3917	255.00	8.00	130.00	Open	219.43	1059.33	1059.05	0.28	0.00
7857	P-3918	258.00	8.00	130.00	Open	9.56	1059.73	1059.73	0.00	0.00
7858	P-3919	260.00	8.00	130.00	Open	6.87	1058.76	1058.76	0.00	0.00
7859	P-3920	260.00	8.00	130.00	Open	16.21	1059.27	1059.27	0.00	0.00
7862	P-3921	263.00	8.00	130.00	Open	-0.68	1058.74	1058.74	0.00	0.00
7864	P-3922	261.00	8.00	130.00	Open	45.60	1060.86	1060.85	0.02	0.00
7865	P-3923	315.00	8.00	130.00	Open	-5.79	1059.16	1059.16	0.00	0.00
7866	P-3924	268.00	8.00	130.00	Open	40.07	1060.97	1060.96	0.01	0.00
7867	P-3925	315.00	8.00	130.00	Open	-3.12	1060.36	1060.36	0.00	0.00
7868	P-3926	264.00	8.00	130.00	Open	3.90	1059.53	1059.53	0.00	0.00
7869	P-3927	274.00	8.00	130.00	Open	8.00	1059.73	1059.73	0.00	0.00
7870	P-3928	270.00	8.00	130.00	Open	8.91	1064.21	1064.21	0.00	0.00
7871	P-3929	266.00	8.00	130.00	Open	0.68	1061.10	1061.10	0.00	0.00
7873	P-3930	267.00	8.00	130.00	Open	51.83	1058.85	1058.83	0.02	0.00
7874	P-3931	271.00	8.00	130.00	Open	0.46	1218.03	1218.03	0.00	0.00
7876	P-3932	274.00	8.00	130.00	Open	9.25	963.94	963.94	0.00	0.00
7877	P-3933	298.00	8.00	130.00	Open	-0.88	1059.94	1059.94	0.00	0.00
7879	P-3934	271.00	8.00	130.00	Open	31.36	1217.79	1217.78	0.01	0.00
7880	P-3935	272.00	8.00	130.00	Open	10.23	1058.76	1058.76	0.00	0.00
7881	P-3936	274.00	8.00	130.00	Open	0.68	1057.79	1057.79	0.00	0.00
7883	P-3937	285.00	8.00	130.00	Open	2.24	1064.62	1064.62	0.00	0.00
7884	P-3938	275.00	8.00	130.00	Open	13.88	1061.62	1061.62	0.00	0.00
7885	P-3939	279.00	8.00	130.00	Open	17.08	1057.69	1057.69	0.00	0.00
7887	P-3940	276.00	8.00	130.00	Open	45.02	1061.07	1061.06	0.02	0.00
7888	P-3941	280.00	8.00	130.00	Open	5.20	1057.40	1057.40	0.00	0.00
7889	P-3942	277.00	8.00	130.00	Open	-3.06	1058.68	1058.68	0.00	0.00
7891	P-3943	277.00	8.00	130.00	Open	16.94	963.94	963.94	0.00	0.00
7892	P-3944	284.00	8.00	130.00	Open	0.99	1061.32	1061.32	0.00	0.00
7893	P-3945	283.00	8.00	130.00	Open	7.89	963.94	963.94	0.00	0.00
7894	P-3946	290.00	8.00	130.00	Open	1.31	1060.45	1060.45	0.00	0.00
7895	P-3947	285.00	8.00	130.00	Open	3.86	1218.15	1218.15	0.00	0.00
7896	P-3948	286.00	8.00	130.00	Open	1.52	1218.15	1218.15	0.00	0.00
7897	P-3949	287.00	8.00	130.00	Open	2.32	1218.02	1218.02	0.00	0.00
7898	P-3950	339.00	8.00	130.00	Open	-46.41	1061.68	1061.70	0.02	0.00
7899	P-3951	288.00	8.00	130.00	Open	0.88	1059.00	1059.00	0.00	0.00
7901	P-3952	291.00	8.00	130.00	Open	-31.46	1057.44	1057.45	0.01	0.00
7902	P-3953	298.00	8.00	130.00	Open	9.40	1064.11	1064.11	0.00	0.00
7903	P-3954	289.00	8.00	130.00	Open	1.23	1064.62	1064.62	0.00	0.00
7904	P-3955	290.00	8.00	130.00	Open	0.28	1059.93	1059.93	0.00	0.00
7906	P-3956	290.00	8.00	130.00	Open	13.55	1060.80	1060.80	0.00	0.00
7907	P-3957	291.00	8.00	130.00	Open	11.29	1059.73	1059.73	0.00	0.00
7908	P-3958	292.00	8.00	130.00	Open	-0.68	981.48	981.48	0.00	0.00
7910	P-3959	292.00	8.00	130.00	Open	0.88	1057.68	1057.68	0.00	0.00
7912	P-3960	292.00	8.00	130.00	Open	10.92	1058.75	1058.75	0.00	0.00
7913	P-3961	342.00	8.00	130.00	Open	-1.56	1057.40	1057.40	0.00	0.00
7914	P-3962	294.00	8.00	130.00	Open	2.84	1057.80	1057.80	0.00	0.00
7915	P-3963	294.00	8.00	130.00	Open	5.00	1064.10	1064.10	0.00	0.00
7916	P-3964	294.00	8.00	130.00	Open	47.47	1061.16	1061.15	0.02	0.00
7917	P-3965	300.00	8.00	130.00	Open	19.41	963.95	963.95	0.00	0.00
7918	P-3966	302.00	8.00	130.00	Open	-34.42	1060.11	1060.12	0.01	0.00
7919	P-3967	309.00	8.00	130.00	Open	4.46	1064.62	1064.62	0.00	0.00
7920	P-3968	308.00	8.00	130.00	Open	-2.30	1058.68	1058.68	0.00	0.00
7921	P-3969	349.00	8.00	130.00	Open	-1.75	1060.84	1060.84	0.00	0.00
7922	P-3970	311.00	8.00	130.00	Open	126.25	1059.96	1059.84	0.12	0.00
7923	P-3971	342.00	8.00	130.00	Open	6.01	1061.61	1061.61	0.00	0.00
7924	P-3972	315.00	8.00	130.00	Open	11.08	1216.98	1216.97	0.00	0.00
7925	P-3973	359.00	8.00	130.00	Open	27.90	963.96	963.96	0.01	0.00
7926	P-3974	320.00	8.00	130.00	Open	-10.24	1060.84	1060.84	0.00	0.00
7927	P-3975	315.00	8.00	130.00	Open	-8.51	1059.16	1059.16	0.00	0.00
7928	P-3976	319.00	8.00	130.00	Open	0.43	1064.62	1064.62	0.00	0.00
7929	P-3977	315.00	8.00	130.00	Open	9.36	1064.12	1064.12	0.00	0.00
7930	P-3978	316.00	8.00	130.00	Open	13.83	981.48	981.48	0.00	0.00
7931	P-3979	317.00	8.00	130.00	Open	14.88	1059.96	1059.95	0.00	0.00
7933	P-3980	318.00	8.00	130.00	Open	6.16	1063.37	1063.37	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7934	P-3981	318.00	8.00	130.00	Open	15.93	1061.62	1061.62	0.00	0.00
7935	P-3982	320.00	8.00	130.00	Open	-36.96	1057.81	1057.82	0.01	0.00
7936	P-3983	320.00	8.00	130.00	Open	4.20	1059.27	1059.27	0.00	0.00
7937	P-3984	324.00	8.00	130.00	Open	-1.08	1057.45	1057.45	0.00	0.00
7939	P-3985	329.00	8.00	130.00	Open	88.07	1059.53	1059.46	0.07	0.00
7940	P-3986	330.00	8.00	130.00	Open	32.54	1057.44	1057.42	0.01	0.00
7942	P-3987	331.00	8.00	130.00	Open	-6.47	988.99	988.99	0.00	0.00
7943	P-3988	331.00	8.00	130.00	Open	0.79	1064.87	1064.87	0.00	0.00
7944	P-3989	386.00	8.00	130.00	Open	-3.72	1057.40	1057.40	0.00	0.00
7945	P-3990	339.00	8.00	130.00	Open	66.34	1057.96	1057.91	0.04	0.00
7947	P-3991	336.00	8.00	130.00	Open	47.12	1061.15	1061.12	0.02	0.00
8188	P-3992	661.00	8.00	130.00	Open	-1.99	1057.96	1057.96	0.00	0.00
8189	P-3993	598.00	8.00	130.00	Open	-49.50	1063.46	1063.50	0.04	0.00
8190	P-3994	578.00	8.00	130.00	Open	23.41	1057.89	1057.88	0.01	0.00
8191	P-3995	594.00	8.00	130.00	Open	2.33	1218.03	1218.03	0.00	0.00
8192	P-3996	580.00	8.00	130.00	Open	18.27	1217.77	1217.76	0.01	0.00
8193	P-3997	728.00	8.00	130.00	Open	-32.86	1060.09	1060.11	0.02	0.00
8194	P-3998	584.00	8.00	130.00	Open	-72.95	1057.94	1058.02	0.08	0.00
8195	P-3999	590.00	8.00	130.00	Open	7.98	1060.45	1060.45	0.00	0.00
8196	P-4000	672.00	8.00	130.00	Open	5.25	1061.62	1061.61	0.00	0.00
8197	P-4001	747.00	8.00	130.00	Open	-4.45	981.48	981.48	0.00	0.00
8198	P-4002	594.00	8.00	130.00	Open	-7.75	1059.16	1059.16	0.00	0.00
8199	P-4003	620.00	8.00	130.00	Open	5.91	1059.35	1059.35	0.00	0.00
8200	P-4004	600.00	8.00	130.00	Open	-9.34	1057.41	1057.42	0.00	0.00
8201	P-4005	596.00	8.00	130.00	Open	-2.52	1064.21	1064.21	0.00	0.00
8202	P-4006	729.00	8.00	130.00	Open	2.29	1058.76	1058.76	0.00	0.00
8204	P-4007	600.00	8.00	130.00	Open	2.99	1058.75	1058.74	0.00	0.00
8205	P-4008	616.00	8.00	130.00	Open	58.56	1058.34	1058.28	0.06	0.00
8206	P-4009	629.00	8.00	130.00	Open	29.73	1058.66	1058.64	0.02	0.00
8207	P-4010	597.00	8.00	130.00	Open	92.89	1059.66	1059.53	0.13	0.00
8208	P-4011	597.00	8.00	130.00	Open	3.51	1322.91	1322.91	0.00	0.00
8209	P-4012	607.00	8.00	130.00	Open	-18.79	1057.80	1057.81	0.01	0.00
8210	P-4013	621.00	8.00	130.00	Open	-0.31	1059.82	1059.82	0.00	0.00
8211	P-4014	652.00	8.00	130.00	Open	2.36	963.94	963.94	0.00	0.00
8212	P-4015	627.00	8.00	130.00	Open	-17.42	981.49	981.49	0.01	0.00
8213	P-4016	615.00	8.00	130.00	Open	29.55	1218.24	1218.23	0.02	0.00
8214	P-4017	601.00	8.00	130.00	Open	-1.08	1060.81	1060.81	0.00	0.00
8216	P-4018	626.00	8.00	130.00	Open	-4.77	1064.87	1064.87	0.00	0.00
8217	P-4019	818.00	8.00	130.00	Open	1.03	981.48	981.48	0.00	0.00
8218	P-4020	617.00	8.00	130.00	Open	2.99	1059.93	1059.93	0.00	0.00
8219	P-4021	609.00	8.00	130.00	Open	59.88	1062.01	1061.95	0.06	0.00
8220	P-4022	677.00	8.00	130.00	Open	5.71	1064.12	1064.12	0.00	0.00
8221	P-4023	640.00	8.00	130.00	Open	-1.44	1059.85	1059.85	0.00	0.00
8222	P-4024	656.00	8.00	130.00	Open	-41.91	1060.97	1061.01	0.03	0.00
8223	P-4025	616.00	8.00	130.00	Open	-60.80	1058.65	1058.71	0.06	0.00
8224	P-4026	620.00	8.00	130.00	Open	9.76	1063.72	1063.72	0.00	0.00
8225	P-4027	620.00	8.00	130.00	Open	8.59	1060.84	1060.84	0.00	0.00
8226	P-4028	626.00	8.00	130.00	Open	1.44	1064.62	1064.62	0.00	0.00
8227	P-4029	629.00	8.00	130.00	Open	12.48	1058.75	1058.75	0.00	0.00
8228	P-4030	636.00	8.00	130.00	Open	-3.86	1059.93	1059.93	0.00	0.00
8229	P-4031	651.00	8.00	130.00	Open	-3.24	1057.82	1057.82	0.00	0.00
8230	P-4032	630.00	8.00	130.00	Open	-37.33	1063.87	1063.90	0.03	0.00
8231	P-4033	646.00	8.00	130.00	Open	2.84	1058.95	1058.95	0.00	0.00
8232	P-4034	628.00	8.00	130.00	Open	17.66	1057.48	1057.47	0.01	0.00
8233	P-4035	748.00	8.00	130.00	Open	-10.07	1060.08	1060.08	0.00	0.00
8234	P-4036	684.00	8.00	130.00	Open	27.95	993.48	993.47	0.02	0.00
8235	P-4037	639.00	8.00	130.00	Open	29.15	1218.23	1218.21	0.02	0.00
8236	P-4038	765.00	8.00	130.00	Open	2.79	1064.12	1064.12	0.00	0.00
8237	P-4039	846.00	8.00	130.00	Open	1.93	1057.96	1057.96	0.00	0.00
8238	P-4040	795.00	8.00	130.00	Open	-1.12	1057.68	1057.68	0.00	0.00
8239	P-4041	719.00	8.00	130.00	Open	-0.91	1061.07	1061.07	0.00	0.00
8240	P-4042	678.00	8.00	130.00	Open	64.67	1062.20	1062.12	0.08	0.00
8241	P-4043	719.00	8.00	130.00	Open	-146.98	1059.94	1060.32	0.38	0.00
8242	P-4044	754.00	8.00	130.00	Open	-5.96	1057.79	1057.79	0.00	0.00
8243	P-4045	658.00	8.00	130.00	Open	27.56	1218.17	1218.16	0.02	0.00
8244	P-4046	655.00	8.00	130.00	Open	46.63	1063.43	1063.39	0.04	0.00
8245	P-4047	683.00	8.00	130.00	Open	-22.68	1059.96	1059.97	0.01	0.00
8246	P-4048	657.00	8.00	130.00	Open	17.13	1217.76	1217.76	0.01	0.00
8247	P-4049	666.00	8.00	130.00	Open	46.73	1057.88	1057.84	0.04	0.00
8248	P-4050	658.00	8.00	130.00	Open	61.27	1058.41	1058.34	0.07	0.00
8249	P-4051	675.00	8.00	130.00	Open	2.73	1064.62	1064.62	0.00	0.00
8250	P-4052	676.00	8.00	130.00	Open	19.69	1057.47	1057.46	0.01	0.00
8251	P-4053	697.00	8.00	130.00	Open	-1.96	1059.82	1059.82	0.00	0.00
8252	P-4054	664.00	8.00	130.00	Open	-9.79	1057.42	1057.42	0.00	0.00
8253	P-4055	680.00	8.00	130.00	Open	39.58	1057.90	1057.86	0.03	0.00
8254	P-4056	674.00	8.00	130.00	Open	-59.65	1058.58	1058.65	0.07	0.00
8255	P-4057	797.00	8.00	130.00	Open	5.96	1063.37	1063.37	0.00	0.00
8256	P-4058	670.00	8.00	130.00	Open	-14.18	1058.77	1058.77	0.00	0.00
8257	P-4059	699.00	8.00	130.00	Open	-1.64	1063.91	1063.91	0.00	0.00
8258	P-4060	676.00	8.00	130.00	Open	-27.83	1060.13	1060.15	0.02	0.00
8259	P-4061	687.00	8.00	130.00	Open	5.68	1059.95	1059.95	0.00	0.00
8260	P-4062	691.00	8.00	130.00	Open	6.78	1059.94	1059.93	0.00	0.00
8261	P-4063	711.00	8.00	130.00	Open	4.60	1058.95	1058.95	0.00	0.00
8262	P-4064	702.00	8.00	130.00	Open	-6.47	1218.03	1218.03	0.00	0.00
8263	P-4065	761.00	8.00	130.00	Open	17.75	1059.74	1059.73	0.01	0.00
8264	P-4066	710.00	8.00	130.00	Open	8.69	1057.43	1057.42	0.00	0.00
8265	P-4067	705.00	8.00	130.00	Open	3.04	1062.42	1062.42	0.00	0.00
8266	P-4068	736.00	8.00	130.00	Open	6.96	1064.62	1064.62	0.00	0.00
8267	P-4069	726.00	8.00	130.00	Open	2.44	1059.27	1059.27	0.00	0.00
8268	P-4070	700.00	8.00	130.00	Open	3.04	1064.10	1064.10	0.00	0.00
8269	P-4071	692.00	8.00	130.00	Open	24.16	1057.90	1057.89	0.01	0.00
8270	P-4072	695.00	8.00	130.00	Open	1.03	1057.42	1057.42	0.00	0.00
8271	P-4073	713.00	8.00	130.00	Open	-8.44	1057.42	1057.42	0.00	0.00
8272	P-4074	704.00	8.00	130.00	Open	20.94	1057.82	1057.81	0.01	0.00
8273	P-4075	705.00	8.00	130.00	Open	1.19	1057.87	1057.87	0.00	0.00
8274	P-4076	717.00	8.00	130.00	Open	1.81	1057.83	1057.83	0.00	0.00
8275	P-4077	704.00	8.00	130.00	Open	-9.34	1057.42	1057.42	0.00	0.00
8276	P-4078	703.00	8.00	130.00	Open	2.04	1057.76	1057.76	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8277	P-4079	707.00	8.00	130.00	Open	-4.40	1059.85	1059.85	0.00	0.00
8278	P-4080	716.00	8.00	130.00	Open	12.98	1057.77	1057.76	0.00	0.00
8279	P-4081	703.00	8.00	130.00	Open	2.04	1060.45	1060.45	0.00	0.00
8280	P-4082	721.00	8.00	130.00	Open	-43.95	1063.91	1063.95	0.04	0.00
8281	P-4083	713.00	8.00	130.00	Open	2.24	1064.60	1064.60	0.00	0.00
8282	P-4084	719.00	8.00	130.00	Open	-3.50	1059.93	1059.93	0.00	0.00
8283	P-4085	878.00	8.00	130.00	Open	-22.47	1060.11	1060.13	0.01	0.00
8284	P-4086	776.00	8.00	130.00	Open	2.55	1059.93	1059.93	0.00	0.00
8285	P-4087	753.00	8.00	130.00	Open	7.35	1064.21	1064.21	0.00	0.00
8286	P-4088	729.00	8.00	130.00	Open	2.39	1060.83	1060.83	0.00	0.00
8287	P-4089	749.00	8.00	130.00	Open	6.88	981.48	981.48	0.00	0.00
8288	P-4090	1075.00	8.00	130.00	Open	84.30	1059.04	1058.84	0.20	0.00
8289	P-4091	724.00	8.00	130.00	Open	9.65	1064.62	1064.62	0.00	0.00
8290	P-4092	748.00	8.00	130.00	Open	23.05	1059.29	1059.28	0.01	0.00
8291	P-4093	733.00	8.00	130.00	Open	6.19	1057.76	1057.76	0.00	0.00
8292	P-4094	733.00	8.00	130.00	Open	-1.84	1059.00	1059.00	0.00	0.00
8293	P-4095	739.00	8.00	130.00	Open	16.42	1217.82	1217.81	0.01	0.00
8294	P-4096	740.00	8.00	130.00	Open	-79.99	1057.05	1057.18	0.13	0.00
8295	P-4097	937.00	8.00	130.00	Open	-34.16	1060.17	1060.20	0.03	0.00
8296	P-4098	743.00	8.00	130.00	Open	1.28	1057.86	1057.86	0.00	0.00
8298	P-4099	735.00	8.00	130.00	Open	2.44	1059.27	1059.27	0.00	0.00
8299	P-4100	780.00	8.00	130.00	Open	2.33	1216.97	1216.97	0.00	0.00
8300	P-4101	841.00	8.00	130.00	Open	-6.85	1057.68	1057.69	0.00	0.00
8301	P-4102	761.00	8.00	130.00	Open	4.95	1060.80	1060.80	0.00	0.00
8302	P-4103	862.00	8.00	130.00	Open	-4.00	1063.37	1063.37	0.00	0.00
8303	P-4104	773.00	8.00	130.00	Open	7.52	1058.95	1058.95	0.00	0.00
8304	P-4105	774.00	8.00	130.00	Open	86.36	1059.46	1059.31	0.15	0.00
8305	P-4106	770.00	8.00	130.00	Open	1.44	1059.35	1059.35	0.00	0.00
8306	P-4107	766.00	8.00	130.00	Open	-6.36	1059.85	1059.85	0.00	0.00
8307	P-4108	767.00	8.00	130.00	Open	-3.83	1059.82	1059.82	0.00	0.00
8308	P-4109	762.00	8.00	130.00	Open	-36.74	1060.05	1060.08	0.03	0.00
8309	P-4110	760.00	8.00	130.00	Open	24.11	1059.96	1059.95	0.01	0.00
8310	P-4111	773.00	8.00	130.00	Open	26.15	1057.80	1057.79	0.02	0.00
8311	P-4112	762.00	8.00	130.00	Open	2.32	1057.76	1057.76	0.00	0.00
8312	P-4113	798.00	8.00	130.00	Open	11.00	1064.84	1064.84	0.00	0.00
8313	P-4114	770.00	8.00	130.00	Open	12.72	1064.85	1064.84	0.00	0.00
8314	P-4115	802.00	8.00	130.00	Open	4.00	1058.69	1058.69	0.00	0.00
8315	P-4116	795.00	8.00	130.00	Open	48.24	1057.99	1057.93	0.05	0.00
8316	P-4117	831.00	8.00	130.00	Open	-1.44	1057.79	1057.79	0.00	0.00
8317	P-4118	791.00	8.00	130.00	Open	-5.50	988.98	988.99	0.00	0.00
8318	P-4119	796.00	8.00	130.00	Open	70.71	1061.42	1061.32	0.11	0.00
8319	P-4120	771.00	8.00	130.00	Open	31.31	1218.34	1218.32	0.02	0.00
8320	P-4121	860.00	8.00	130.00	Open	8.27	1057.45	1057.45	0.00	0.00
8321	P-4122	776.00	8.00	130.00	Open	18.76	1217.78	1217.77	0.01	0.00
8322	P-4123	811.00	8.00	130.00	Open	9.72	1064.61	1064.61	0.00	0.00
8323	P-4124	805.00	8.00	130.00	Open	8.10	1064.63	1064.62	0.00	0.00
8324	P-4125	791.00	8.00	130.00	Open	-12.29	981.48	981.48	0.00	0.00
8325	P-4126	789.00	8.00	130.00	Open	-11.40	1057.79	1057.80	0.00	0.00
8326	P-4127	788.00	8.00	130.00	Open	82.34	1058.84	1058.70	0.14	0.00
8327	P-4128	797.00	8.00	130.00	Open	27.95	1218.19	1218.17	0.02	0.00
8328	P-4129	798.00	8.00	130.00	Open	-13.44	1057.81	1057.82	0.00	0.00
8329	P-4130	793.00	8.00	130.00	Open	-24.39	1061.61	1061.63	0.01	0.00
8330	P-4131	816.00	8.00	130.00	Open	71.56	1058.54	1058.43	0.11	0.00
8331	P-4132	805.00	8.00	130.00	Open	4.61	1064.61	1064.60	0.00	0.00
8332	P-4133	826.00	8.00	130.00	Open	21.90	1057.83	1057.82	0.01	0.00
8333	P-4134	823.00	8.00	130.00	Open	72.88	1061.54	1061.42	0.12	0.00
8334	P-4135	801.00	8.00	130.00	Open	5.96	1058.75	1058.75	0.00	0.00
8335	P-4136	832.00	8.00	130.00	Open	4.08	1064.60	1064.60	0.00	0.00
8336	P-4137	821.00	8.00	130.00	Open	19.19	1061.63	1061.62	0.01	0.00
8337	P-4138	816.00	8.00	130.00	Open	6.44	1063.30	1063.30	0.00	0.00
8338	P-4139	804.00	8.00	130.00	Open	-11.48	1057.81	1057.81	0.00	0.00
8339	P-4140	811.00	8.00	130.00	Open	12.23	1057.76	1057.76	0.00	0.00
8340	P-4141	822.00	8.00	130.00	Open	-10.43	1059.94	1059.94	0.00	0.00
8341	P-4142	806.00	8.00	130.00	Open	49.80	1058.04	1057.99	0.06	0.00
8342	P-4143	833.00	8.00	130.00	Open	-0.68	1057.41	1057.41	0.00	0.00
8344	P-4144	807.00	8.00	130.00	Open	86.01	1059.35	1059.20	0.16	0.00
8345	P-4145	810.00	8.00	130.00	Open	9.82	1057.54	1057.54	0.00	0.00
8346	P-4146	829.00	8.00	130.00	Open	11.07	1063.37	1063.37	0.00	0.00
8347	P-4147	865.00	8.00	130.00	Open	3.33	1057.68	1057.68	0.00	0.00
8348	P-4148	832.00	8.00	130.00	Open	-3.27	1059.82	1059.82	0.00	0.00
8349	P-4149	813.00	8.00	130.00	Open	2.07	1057.68	1057.68	0.00	0.00
8350	P-4150	905.00	8.00	130.00	Open	35.60	1060.94	1060.91	0.03	0.00
8351	P-4151	948.00	8.00	130.00	Open	5.49	1057.68	1057.68	0.00	0.00
8352	P-4152	849.00	8.00	130.00	Open	6.39	1059.53	1059.53	0.00	0.00
8353	P-4153	945.00	8.00	130.00	Open	6.92	1060.08	1060.08	0.00	0.00
8354	P-4154	836.00	8.00	130.00	Open	85.05	1059.20	1059.04	0.16	0.00
8355	P-4155	846.00	8.00	130.00	Open	8.09	1057.80	1057.80	0.00	0.00
8356	P-4156	831.00	8.00	130.00	Open	30.92	1218.32	1218.29	0.02	0.00
8357	P-4157	836.00	8.00	130.00	Open	7.59	1057.69	1057.68	0.00	0.00
8358	P-4158	836.00	8.00	130.00	Open	-2.07	1059.66	1059.66	0.00	0.00
8359	P-4159	958.00	8.00	130.00	Open	65.62	1062.31	1062.20	0.11	0.00
8360	P-4160	837.00	8.00	130.00	Open	-78.86	1058.03	1058.17	0.14	0.00
8361	P-4161	850.00	8.00	130.00	Open	-30.39	1060.15	1060.17	0.02	0.00
8362	P-4162	843.00	8.00	130.00	Open	-35.20	1057.78	1057.81	0.03	0.00
8363	P-4163	977.00	8.00	130.00	Open	10.44	1063.38	1063.37	0.00	0.00
8364	P-4164	850.00	8.00	130.00	Open	-8.80	1058.76	1058.77	0.00	0.00
8365	P-4165	884.00	8.00	130.00	Open	10.03	1064.61	1064.61	0.00	0.00
8366	P-4166	866.00	8.00	130.00	Open	-3.68	1057.68	1057.68	0.00	0.00
8367	P-4167	865.00	8.00	130.00	Open	3.60	1060.82	1060.82	0.00	0.00
8368	P-4168	882.00	8.00	130.00	Open	4.06	1064.60	1064.60	0.00	0.00
8369	P-4169	866.00	8.00	130.00	Open	47.08	1057.93	1057.88	0.06	0.00
8370	P-4170	870.00	8.00	130.00	Open	-2.36	1218.03	1218.03	0.00	0.00
8371	P-4171	928.00	8.00	130.00	Open	4.20	1057.76	1057.76	0.00	0.00
8372	P-4172	861.00	8.00	130.00	Open	1.68	1058.69	1058.69	0.00	0.00
8374	P-4173	863.00	8.00	130.00	Open	-57.77	1061.85	1061.93	0.08	0.00
8376	P-4174	870.00	8.00	130.00	Open	29.95	1218.27	1218.24	0.02	0.00
8377	P-4175	875.00	8.00	130.00	Open	98.30	1059.71	1059.49	0.22	0.00
8378	P-4176	881.00	8.00	130.00	Open	5.41	1064.10	1064.10	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8379	P-4177	866.00	8.00	130.00	Open	3.35	873.78	873.78	0.00	0.00
8380	P-4178	911.00	8.00	130.00	Open	2.32	1064.60	1064.60	0.00	0.00
8381	P-4179	916.00	8.00	130.00	Open	27.55	993.47	993.45	0.02	0.00
8382	P-4180	883.00	8.00	130.00	Open	-10.58	1059.94	1059.95	0.00	0.00
8383	P-4181	895.00	8.00	130.00	Open	-3.40	1057.79	1057.79	0.00	0.00
8384	P-4182	904.00	8.00	130.00	Open	9.88	1064.61	1064.61	0.00	0.00
8385	P-4183	891.00	8.00	130.00	Open	-74.94	1060.21	1060.34	0.13	0.00
8386	P-4184	898.00	8.00	130.00	Open	22.09	1057.49	1057.47	0.01	0.00
8387	P-4185	917.00	8.00	130.00	Open	13.89	1057.47	1057.46	0.01	0.00
8388	P-4186	911.00	8.00	130.00	Open	30.52	1218.29	1218.27	0.03	0.00
8389	P-4187	922.00	8.00	130.00	Open	-2.76	1218.03	1218.03	0.00	0.00
8390	P-4188	905.00	8.00	130.00	Open	5.91	1057.42	1057.42	0.00	0.00
8391	P-4189	922.00	8.00	130.00	Open	2.95	1059.93	1059.93	0.00	0.00
8392	P-4190	923.00	8.00	130.00	Open	6.04	1064.11	1064.11	0.00	0.00
8393	P-4191	917.00	8.00	130.00	Open	-3.78	1059.53	1059.53	0.00	0.00
8394	P-4192	919.00	8.00	130.00	Open	63.32	1061.21	1061.11	0.10	0.00
8395	P-4193	1075.00	8.00	130.00	Open	10.13	1061.85	1061.85	0.00	0.00
8396	P-4194	949.00	8.00	130.00	Open	-38.74	1060.16	1060.21	0.04	0.00
8397	P-4195	974.00	8.00	130.00	Open	2.32	1059.35	1059.35	0.00	0.00
8398	P-4196	928.00	8.00	130.00	Open	-13.79	1061.72	1061.72	0.01	0.00
8399	P-4197	971.00	8.00	130.00	Open	12.09	1059.44	1059.43	0.01	0.00
8400	P-4198	1092.00	8.00	130.00	Open	4.64	1064.62	1064.62	0.00	0.00
8401	P-4199	997.00	8.00	130.00	Open	80.31	1058.73	1058.56	0.17	0.00
8402	P-4200	983.00	8.00	130.00	Open	5.51	1060.83	1060.83	0.00	0.00
8403	P-4201	943.00	8.00	130.00	Open	9.23	1060.83	1060.83	0.00	0.00
8404	P-4202	953.00	8.00	130.00	Open	3.32	1063.37	1063.37	0.00	0.00
8405	P-4203	980.00	8.00	130.00	Open	15.24	1217.76	1217.75	0.01	0.00
8406	P-4204	963.00	8.00	130.00	Open	30.99	1218.31	1218.28	0.03	0.00
8407	P-4205	1058.00	8.00	130.00	Open	8.00	1063.30	1063.30	0.00	0.00
8408	P-4206	978.00	8.00	130.00	Open	-63.84	1056.80	1056.91	0.11	0.00
8409	P-4207	1265.00	8.00	130.00	Open	4.02	1322.91	1322.91	0.00	0.00
8410	P-4208	1012.00	8.00	130.00	Open	62.27	1062.12	1062.01	0.11	0.00
8411	P-4209	1005.00	8.00	130.00	Open	-1.97	1218.03	1218.03	0.00	0.00
8412	P-4210	995.00	8.00	130.00	Open	0.08	1060.01	1060.01	0.00	0.00
8414	P-4211	1251.00	8.00	130.00	Open	0.68	1059.95	1059.95	0.00	0.00
8416	P-4212	998.00	8.00	130.00	Open	31.75	1217.82	1217.79	0.03	0.00
8417	P-4213	1064.00	8.00	130.00	Open	-36.38	1060.12	1060.16	0.04	0.00
8418	P-4214	1006.00	8.00	130.00	Open	-34.18	1060.01	1060.05	0.04	0.00
8419	P-4215	1014.00	8.00	130.00	Open	-2.40	988.98	988.98	0.00	0.00
8420	P-4216	1026.00	8.00	130.00	Open	5.83	1059.53	1059.53	0.00	0.00
8421	P-4217	1044.00	8.00	130.00	Open	34.78	1060.01	1059.98	0.04	0.00
8422	P-4218	1086.00	8.00	130.00	Open	5.08	1060.80	1060.80	0.00	0.00
8423	P-4219	1289.00	8.00	130.00	Open	0.99	1059.93	1059.93	0.00	0.00
8426	P-4221	1105.00	8.00	130.00	Open	3.69	1064.62	1064.62	0.00	0.00
8427	P-4222	1092.00	8.00	130.00	Open	-0.83	1060.02	1060.02	0.00	0.00
8428	P-4223	1124.00	8.00	130.00	Open	13.89	1057.47	1057.46	0.01	0.00
8429	P-4224	1166.00	8.00	130.00	Open	-13.66	1057.83	1057.84	0.01	0.00
8430	P-4225	1163.00	8.00	130.00	Open	-4.36	1059.94	1059.94	0.00	0.00
8431	P-4226	1166.00	8.00	130.00	Open	10.73	1059.27	1059.26	0.00	0.00
8432	P-4227	1290.00	8.00	130.00	Open	3.35	1064.60	1064.60	0.00	0.00
8433	P-4228	1220.00	8.00	130.00	Open	-4.21	1059.93	1059.94	0.00	0.00
8434	P-4229	1382.00	8.00	130.00	Open	50.96	1058.14	1058.04	0.10	0.00
8435	P-4230	1214.00	8.00	130.00	Open	31.47	1218.35	1218.31	0.04	0.00
8436	P-4231	1322.00	8.00	130.00	Open	-60.03	1056.92	1057.05	0.13	0.00
8437	P-4232	1307.00	8.00	130.00	Open	16.03	967.37	967.36	0.01	0.00
8438	P-4233	1453.00	8.00	130.00	Open	0.54	1060.01	1060.01	0.00	0.00
8439	P-4234	1464.00	8.00	130.00	Open	93.69	1061.99	1061.66	0.33	0.00
8440	P-4235	1332.00	8.00	130.00	Open	54.08	1058.27	1058.16	0.11	0.00
8441	P-4236	1360.00	8.00	130.00	Open	24.82	1059.99	1059.97	0.03	0.00
8442	P-4237	1425.00	8.00	130.00	Open	8.25	1057.81	1057.80	0.00	0.00
8443	P-4238	1410.00	8.00	130.00	Open	8.54	1059.94	1059.94	0.00	0.00
8445	P-4240	1862.00	8.00	130.00	Open	23.77	1057.78	1057.74	0.03	0.00
8446	P-4241	2504.00	8.00	130.00	Open	69.79	1058.43	1058.09	0.33	0.00
8447	P-4242	2538.00	8.00	130.00	Open	83.44	1059.22	1058.75	0.47	0.00
8448	P-4243	2410.00	8.00	130.00	Open	-47.57	1061.70	1061.85	0.16	0.00
8449	P-4244	2305.00	8.00	130.00	Open	14.13	1059.95	1059.94	0.02	0.00
8450	P-4245	2749.00	8.00	130.00	Open	22.85	1057.88	1057.83	0.05	0.00
8451	P-4246	2640.00	8.00	130.00	Open	81.82	1058.64	1058.17	0.47	0.00
8452	P-4247	2638.00	8.00	130.00	Open	0.68	873.78	873.78	0.00	0.00
8454	P-4248	3442.00	8.00	130.00	Open	82.89	1060.38	1059.75	0.62	0.00
8455	P-4249	4140.00	8.00	130.00	Open	2.59	873.78	873.78	0.00	0.00
8456	P-4250	6.00	99.00	130.00	Open	0.23	1059.10	1059.10	0.00	0.00
8458	P-4251	11.00	99.00	130.00	Open	0.08	1059.10	1059.10	0.00	0.00
8460	P-4252	11.00	99.00	130.00	Open	0.08	1059.10	1059.10	0.00	0.00
8462	P-4253	11.00	99.00	130.00	Open	0.20	1218.35	1218.35	0.00	0.00
8464	P-4254	15.00	99.00	130.00	Open	1.50	960.64	960.64	0.00	0.00
8466	P-4255	18.00	99.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
8468	P-4256	21.00	99.00	130.00	Open	0.48	1061.56	1061.56	0.00	0.00
8470	P-4257	22.00	99.00	130.00	Open	-0.08	1059.10	1059.10	0.00	0.00
8472	P-4258	28.00	99.00	130.00	Open	0.68	1061.03	1061.03	0.00	0.00
8474	P-4259	32.00	99.00	130.00	Open	-0.28	1058.68	1058.68	0.00	0.00
8476	P-4260	33.00	99.00	130.00	Open	0.68	1061.50	1061.50	0.00	0.00
8478	P-4261	36.00	99.00	130.00	Open	0.28	1061.12	1061.12	0.00	0.00
8480	P-4262	39.00	99.00	130.00	Open	0.68	1061.07	1061.07	0.00	0.00
8482	P-4263	46.00	99.00	130.00	Open	0.48	1058.69	1058.69	0.00	0.00
8484	P-4264	47.00	99.00	130.00	Open	-0.48	1058.68	1058.68	0.00	0.00
8486	P-4265	50.00	99.00	130.00	Open	-1.68	1059.26	1059.26	0.00	0.00
8489	P-4266	68.00	99.00	130.00	Open	-0.48	1058.65	1058.65	0.00	0.00
8492	P-4267	75.00	99.00	130.00	Open	0.68	1060.81	1060.81	0.00	0.00
8494	P-4268	77.00	99.00	130.00	Open	-0.48	1058.65	1058.65	0.00	0.00
8497	P-4269	128.00	99.00	130.00	Open	0.55	967.07	967.07	0.00	0.00
8499	P-4270	207.00	99.00	130.00	Open	0.48	1058.37	1058.37	0.00	0.00
8501	P-4271	155.00	99.00	130.00	Open	-0.08	1058.75	1058.75	0.00	0.00
8503	P-4272	206.00	99.00	130.00	Open	-0.28	1064.90	1064.90	0.00	0.00
8505	P-4273	166.00	99.00	130.00	Open	0.48	1060.82	1060.82	0.00	0.00
8507	P-4274	188.00	99.00	130.00	Open	1.24	1059.33	1059.33	0.00	0.00
8508	P-4275	168.00	99.00	130.00	Open	0.68	1062.90	1062.90	0.00	0.00
8510	P-4276	174.00	99.00	130.00	Open	0.08	1058.65	1058.65	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream	Downstream	Headloss (ft)	Headloss Gradient (ft/1000ft)
							Hydraulic Grade (ft)	Hydraulic Grade (ft)		
8512	P-4277	213.00	99.00	130.00	Open	0.68	1060.82	1060.82	0.00	0.00
8514	P-4278	209.00	99.00	130.00	Open	0.99	1058.65	1058.65	0.00	0.00
8515	P-4279	227.00	99.00	130.00	Open	2.10	1058.65	1058.65	0.00	0.00
8516	P-4280	260.00	99.00	130.00	Open	-0.48	1059.47	1059.47	0.00	0.00
8518	P-4281	243.00	99.00	130.00	Open	0.08	1057.47	1057.47	0.00	0.00
8520	P-4282	245.00	99.00	130.00	Open	0.68	1064.60	1064.60	0.00	0.00
8522	P-4283	251.00	99.00	130.00	Open	-6.12	1058.64	1058.64	0.00	0.00
8524	P-4284	261.00	99.00	130.00	Open	0.08	1057.42	1057.42	0.00	0.00
8526	P-4285	312.00	99.00	130.00	Open	-0.72	1022.90	1022.90	0.00	0.00
8528	P-4286	290.00	99.00	130.00	Open	-0.48	1058.68	1058.68	0.00	0.00
8530	P-4287	444.00	99.00	130.00	Open	1.75	1058.65	1058.65	0.00	0.00
8531	P-4288	461.00	99.00	130.00	Open	0.43	1058.65	1058.65	0.00	0.00
8532	P-4289	477.00	99.00	130.00	Open	-2.77	1059.26	1059.26	0.00	0.00
8533	P-4290	601.00	99.00	130.00	Open	0.31	1075.00	1075.00	0.00	0.00
8535	P-4291	724.00	99.00	130.00	Open	-0.08	1075.00	1075.00	0.00	0.00
8537	P-4292	786.00	99.00	130.00	Open	-0.48	1064.63	1064.63	0.00	0.00
8539	P-4293	1004.00	99.00	130.00	Open	-0.08	1075.00	1075.00	0.00	0.00
8541	P-4294	876.00	99.00	130.00	Open	0.46	1075.00	1075.00	0.00	0.00
499	P-Graves_Mill	64.00	12.00	130.00	Open	186.34	1061.23	1061.22	0.01	0.00
2065	P-Hawkins_Mill	709.00	20.00	130.00	Open	71.80	1064.13	1064.13	0.00	0.00
1409	P-Lakeside	22.00	16.00	130.00	Open	287.26	1062.76	1062.76	0.00	0.00

**BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013**

Run 1 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.
Existing Water System.

All Tanks at Normal Low Level, High Point WTP - Off, & Lynchburg WTP - Off.

Steady State Analysis

Tank Report

Node Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial Elevation (ft)	Maximum Elevation (ft)	Diameter (ft)	Inflow (gpm)	Hydraulic Grade (ft)
Althea_Grove_Tank	1032.50	1032.50	1065.00	1075.50	68.92	-749.29	1065.00
Fox_Run_Tank	1000.00	1196.03	1201.29	1201.39	2.67	-3.75	1201.29
Huntingwood_Tank	1050.00	1050.00	1065.00	1082.00	100.00	-772.43	1065.00
New_London_Tank	1031.32	1031.32	1065.00	1075.50	67.00	-612.07	1065.00
Parkway_Tank	1279.00	1279.00	1323.01	1329.00	60.00	-42.97	1323.01
Smith_Mountain_Lake_Tank	1046.50	1180.00	1219.01	1224.18	62.07	-525.51	1219.01
Stewartsville_Tank	1249.98	1249.98	1249.99	1250.00	10.00	(N/A)	(N/A)
R-4	--	--	--	--	--	-0.54	1075.00
R-Abert_WTP	--	--	--	--	--	0.00	800.00
R-Falling_Creek	--	--	--	--	--	0.00	1670.00
R-High_Point_Cleanwell	--	--	--	--	--	0.00	971.50
R-Lynchburg_WTP	--	--	--	--	--	0.00	1200.00
R-Camp_24	--	--	--	--	--	(N/A)	(N/A)

Pump Report

Pump Label	Elevation (ft)	Control Status	Intake Pump Grade (ft)	Discharge Pump Grade (ft)	Discharge (gpm)	Pump Head (ft)
PMP-Abert_WTP	0.00	Off	800.00	1,064.63	0.00	0.00
PMP-Camp_24	1,000.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)
PMP-Fox_Run	1,007.36	Off	1,064.83	1,201.29	0.00	0.00
PMP-High_Point_WTP	936.97	Off	971.50	1,218.60	0.00	0.00
PMP-New_London	912.00	Off	1,064.76	1,065.00	0.00	0.00

Valve Report

Valve Label	Elevation (ft)	Diameter (in)	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)
PRV-8	928.06	6.00	Inactive	10.96	1,064.87	1,064.87	0.00
PRV-9	885.56	6.00	Inactive	22.63	1,064.63	1,064.63	0.00
PRV-10	895.29	6.00	Inactive	7.40	1,064.63	1,064.63	0.00
PRV-27	880.00	6.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)
PRV-Bateman_Bridge	905.20	6.00	Active	57.48	1,056.73	981.50	75.23
PRV-Beechwood	922.00	3.00	Active	26.10	1,218.12	991.36	226.76
PRV-Benni_Court	848.00	2.00	Active	1.58	1,218.03	963.61	254.42
PRV-Cardinal_Road	846.81	1.50	Active	0.46	1,217.75	962.42	255.33
PRV-Cottontown_Road	813.68	6.00	Active	28.46	1,062.10	963.97	98.13
PRV-Forestdale	856.03	6.00	Active	10.49	1,060.97	994.76	66.21
PRV-Forty_Acres	828.70	4.00	Active	5.66	1,218.02	967.43	250.60
PRV-Franklin_County	803.07	6.00	Inactive	257.22	1,215.48	1,215.48	0.00
PRV-Graves_Mill_Road	848.00	10.00	Inactive	-219.37	1,061.07	1,061.07	0.00
PRV-Gross_Point	856.72	4.00	Active	8.38	1,217.75	960.77	256.98
PRV-Harbor_Highlights	907.00	6.00	Active	2.39	1,217.85	1,068.85	149.00
PRV-Highpoint_Road	942.03	3.00	Active	12.39	1,218.60	1,022.96	195.64
PRV-Highpoint_Section_8	950.00	3.00	Active	4.20	1,218.60	1,019.36	199.24
PRV-Homestead_Drive	849.86	8.00	Closed	0.00	1,060.81	981.48	0.00
PRV-Isle_of_Pines	901.00	4.00	Active	30.59	1,218.28	993.49	224.79
PRV-Lake_Estates	874.89	4.00	Active	16.42	1,217.81	967.37	250.44
PRV-Lake_Vista	814.36	6.00	Inactive	97.49	1,062.10	1,062.10	0.00
PRV-New_London	785.92	6.00	Active	3.35	1,059.53	873.78	185.75
PRV-Park_Shores	873.38	4.00	Active	7.26	1,218.11	988.99	229.13
PRV-Ridgeview_Drive	740.00	6.00	Active	6.56	1,062.24	825.55	236.69
PRV-Sign_N_Pine	845.98	1.50	Active	4.37	1,217.73	961.59	256.14
PRV-Waterways	858.00	2.00	Active	11.48	1,217.77	973.61	244.17

BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
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Run 1 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.
Existing Water System.

All Tanks at Normal Low Level, High Point WTP - Off, & Lynchburg WTP - Off.

Steady State Analysis

Fire Flow Report - sorted by Available Fire Flow

Node ID	Node Label	Pressure Zone	Fire Flow Constraints	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
8695	J-4226	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8701	J-4227	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8705	J-4228	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8707	J-4229	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8709	J-4230	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8713	J-4231	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8716	J-4232	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8719	J-4233	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8721	J-4234	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8722	J-4235	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
386	J-210	Tank_Node	FALSE	1.00	0.00	1.08	0.08	20.00	20.91	20.00	17.23	J-1198	(N/A)	17.23	J-1198
387	J-211	Tank_Node	FALSE	1.00	0.00	1.08	0.08	20.00	20.56	20.00	17.23	J-1198	(N/A)	17.23	J-1198
2243	J-1198	Tank_Node	FALSE	1.00	0.00	2.08	1.08	20.00	17.23	20.00	20.56	J-211	(N/A)	20.56	J-211
33	J-4	Forest	TRUE	1.00	37.68	1.68	38.36	20.00	21.41	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2354	J-1262	Forest	TRUE	1.00	39.06	2.48	40.54	20.00	20.15	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2295	J-1229	Forest	TRUE	1.00	48.65	1.88	49.53	20.00	44.38	20.00	20.01	J-1262	(N/A)	17.23	J-1198
2296	J-1230	Forest	TRUE	1.00	48.67	2.48	50.15	20.00	30.04	20.00	20.00	J-1262	(N/A)	17.23	J-1198
2035	J-1076	Lakes	TRUE	1.00	59.98	2.06	61.04	20.00	20.01	20.00	31.53	J-1360	(N/A)	17.23	J-1198
2032	J-1074	Forest	TRUE	1.00	67.70	1.68	68.38	20.00	20.02	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2027	J-1071	Lakes	TRUE	1.00	71.15	1.55	71.70	20.00	20.18	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2024	J-1069	Lakes	TRUE	1.00	76.50	1.37	76.87	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2030	J-1073	Forest	TRUE	1.00	79.80	1.08	79.87	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2002	J-1056	Lakes	TRUE	1.00	84.33	1.63	84.97	20.00	20.11	20.00	29.92	J-1360	(N/A)	17.23	J-1198
2015	J-1064	Lakes	TRUE	1.00	87.42	1.46	87.88	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2018	J-1066	Lakes	TRUE	1.00	88.46	1.37	88.84	20.00	20.04	20.00	30.76	J-1575	(N/A)	17.23	J-1198
2020	J-1067	Lakes	TRUE	1.00	90.23	1.72	90.95	20.00	20.04	20.00	32.33	J-1575	(N/A)	17.23	J-1198
2007	J-1059	Forest	TRUE	1.00	92.00	2.88	93.89	20.00	20.04	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2012	J-1062	Lakes	TRUE	1.00	93.71	1.89	94.60	20.00	20.07	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2225	J-1188	Forest	TRUE	1.00	94.21	1.08	94.29	20.00	46.49	20.00	20.01	J-1262	(N/A)	17.22	J-1198
2224	J-1187	Forest	TRUE	1.00	94.24	1.68	94.92	20.00	38.12	20.00	20.00	J-1262	(N/A)	17.22	J-1198
2316	J-1242	Forest	TRUE	1.00	95.18	1.88	96.06	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1961	J-1029	Forest	TRUE	1.00	98.47	2.08	99.55	20.00	20.07	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1976	J-1039	Lakes	TRUE	1.00	104.36	1.46	104.82	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1825	J-941	Forest	TRUE	1.00	107.05	1.68	107.73	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2005	J-1058	Lakes	TRUE	1.00	107.63	1.72	108.35	20.00	20.05	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1996	J-1052	Fox_Run	TRUE	1.00	108.28	1.88	109.16	20.00	20.01	20.00	53.56	J-1337	(N/A)	17.23	J-1198
1993	J-1050	Lakes	TRUE	1.00	108.80	1.46	109.26	20.00	20.33	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1956	J-1026	Lakes	TRUE	1.00	110.64	1.37	111.01	20.00	20.25	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1970	J-1035	Lakes	TRUE	1.00	111.60	1.72	112.32	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1987	J-1046	Lakes	TRUE	1.00	111.77	1.55	112.31	20.00	20.22	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1726	J-877	Forest	TRUE	1.00	111.82	1.48	112.30	20.00	20.01	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1937	J-1013	Lakes	TRUE	1.00	111.90	1.63	112.53	20.00	20.33	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1944	J-1018	Forest	TRUE	1.00	113.01	1.88	113.89	20.00	20.02	20.00	24.20	J-1197	(N/A)	17.12	J-1198
1931	J-1009	Lakes	TRUE	1.00	115.88	1.37	116.25	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1972	J-1036	Forest	TRUE	1.00	117.99	1.68	118.67	20.00	20.07	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1998	J-1053	Lakes	TRUE	1.00	118.01	1.55	118.56	20.00	20.09	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1906	J-993	Forest	TRUE	1.00	123.16	1.68	123.84	20.00	20.18	20.00	24.30	J-1197	(N/A)	17.23	J-1198
30	J-2	Forest	TRUE	1.00	123.56	1.08	123.63	20.00	20.19	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1947	J-1020	Forest	TRUE	1.00	125.81	1.88	126.69	20.00	20.11	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2321	J-1244	Lakes	TRUE	1.00	127.62	1.37	127.99	20.00	20.01	20.00	21.04	J-1374	(N/A)	17.23	J-1198
2558	J-1374	Lakes	TRUE	1.00	129.39	1.29	129.67	20.00	20.04	20.00	23.64	J-1245	(N/A)	17.23	J-1198
2322	J-1245	Lakes	TRUE	1.00	131.47	1.37	131.84	20.00	22.32	20.00	20.05	J-1374	(N/A)	17.23	J-1198
2694	J-1452	Lakes	TRUE	1.00	131.65	1.37	132.02	20.00	47.65	20.00	20.00	J-1374	(N/A)	17.23	J-1198
1735	J-883	Lakes	TRUE	1.00	131.65	1.29	131.94	20.00	46.68	20.00	20.00	J-1374	(N/A)	17.23	J-1198
2695	J-1453	Lakes	TRUE	1.00	131.65	1.63	132.29	20.00	39.17	20.00	20.00	J-1374	(N/A)	17.23	J-1198
2026	J-1070	Lakes	TRUE	1.00	131.66	1.20	131.86	20.00	24.73	20.00	20.00	J-1374	(N/A)	17.23	J-1198
1734	J-882	Lakes	TRUE	1.00	131.66	1.46	132.12	20.00	30.85	20.00	20.00	J-1374	(N/A)	17.23	J-1198
2422	J-1297	Lakes	TRUE	1.00	131.66	1.20	131.86	20.00	24.70	20.00	20.00	J-1374	(N/A)	17.23	J-1198
1929	J-1008	Lakes	TRUE	1.00	132.11	1.29	132.39	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1979	J-1041	Forest	TRUE	1.00	133.14	1.68	133.82	20.00	20.05	20.00	24.24	J-1197	(N/A)	17.16	J-1198
1941	J-1016	Forest	TRUE	1.00	133.28	1.88	134.16	20.00	20.12	20.00	24.30	J-1197	(N/A)	17.23	J-1198
1909	J-995	Lakes	TRUE	1.00	134.28	1.55	134.83	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2363	J-1267	Forest	TRUE	1.00	135.60	1.68	136.28	20.00	20.18	20.00	24.30	J-1197	(N/A)	17.23	J-1198
1983	J-1043	Forest	TRUE	1.00	138.27	1.88	139.15	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1874	J-973	Lakes	TRUE	1.00	143.23	1.46	143.69	20.00	20.00	20.00	24.35	J-1360	(N/A)	17.23	J-1198
1893	J-985	Lakes	TRUE	1.00	144.20	1.63	144.84	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1635	J-819	Lakes	TRUE	1.00	145.22	1.37	145.59	20.00	35.22	20.00	20.00	J-1374	(N/A)	17.23	J-1198
1636	J-820	Lakes	TRUE	1.00	145.22	1.46	145.68	20.00	32.25	20.00	20.00	J-1374	(N/A)	17.23	J-1198
1964	J-1031	Forest	TRUE	1.00	145.84	1.88	146.72	20.00	20.19	20.00	24.30	J-1197	(N/A)	17.23	J-1198
1990	J-1048	Forest	TRUE	1.00	147.27	1.68	147.95	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1879	J-976	Forest	TRUE	1.00											

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2013	J-1063	Lakes	TRUE	1.00	167.09	1.46	167.55	20.00	26.40	20.00	20.32	J-1062	(N/A)	17.23	J-1198
1685	J-850	Forest	TRUE	1.00	167.32	2.28	168.60	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.22	J-1198
2269	J-1213	Lakes	TRUE	1.00	167.48	1.72	168.20	20.00	20.02	20.00	29.08	J-1214	(N/A)	17.23	J-1198
1782	J-913	Forest	TRUE	1.00	167.82	1.48	168.30	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1898	J-988	Forest	TRUE	1.00	168.02	3.09	170.11	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1918	J-1001	Forest	TRUE	1.00	169.73	1.48	170.21	20.00	20.33	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2717	J-1466	Lakes	TRUE	1.00	170.19	1.20	170.38	20.00	20.02	20.00	31.23	J-1365	(N/A)	17.23	J-1198
1729	J-879	Lakes	TRUE	1.00	170.40	1.89	171.30	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2022	J-1068	Lakes	TRUE	1.00	170.82	1.20	171.02	20.00	20.13	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1868	J-969	Forest	TRUE	1.00	171.19	2.28	172.47	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1887	J-981	Forest	TRUE	1.00	172.88	1.48	173.36	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
1877	J-975	Forest	TRUE	1.00	173.47	2.48	174.95	20.00	20.18	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1901	J-990	Forest	TRUE	1.00	175.21	1.88	176.09	20.00	20.18	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2545	J-1366	Lakes	TRUE	1.00	175.78	1.20	175.98	20.00	31.14	20.00	20.00	J-1466	(N/A)	17.23	J-1198
2544	J-1365	Lakes	TRUE	1.00	175.78	1.29	176.07	20.00	28.99	20.00	20.00	J-1466	(N/A)	17.23	J-1198
1818	J-936	Forest	TRUE	1.00	176.51	1.88	177.39	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
32	J-3	Forest	TRUE	1.00	176.75	1.28	177.03	20.00	20.29	20.00	22.88	J-4	(N/A)	17.21	J-1198
2128	J-1127	Lakes	TRUE	1.00	177.38	1.72	178.10	20.00	49.37	20.00	20.00	J-1374	(N/A)	17.23	J-1198
2036	J-1077	Lakes	TRUE	1.00	177.68	1.81	178.48	20.00	21.94	20.00	20.04	J-1360	(N/A)	17.23	J-1198
2534	J-1360	Lakes	TRUE	1.00	177.89	1.46	178.34	20.00	20.01	20.00	22.58	J-1077	(N/A)	17.23	J-1198
1873	J-972	Lakes	TRUE	1.00	177.99	2.34	179.32	20.00	50.94	20.00	20.00	J-1360	(N/A)	17.23	J-1198
2917	J-1578	Lakes	TRUE	1.00	177.99	1.37	178.36	20.00	65.28	20.00	20.00	J-1360	(N/A)	17.23	J-1198
2001	J-1055	Lakes	TRUE	1.00	177.99	1.37	178.36	20.00	28.38	20.00	20.00	J-1360	(N/A)	17.23	J-1198
1967	J-1033	Forest	TRUE	1.00	178.42	2.08	179.50	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3026	J-1627	Forest	TRUE	1.00	179.25	2.48	180.73	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2341	J-1255	Lakes	TRUE	1.00	182.95	1.81	183.76	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1802	J-926	Forest	TRUE	1.00	182.96	1.28	183.24	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
8498	J-4202	Lakes	TRUE	1.00	183.30	1.55	183.84	20.00	21.47	20.00	20.25	J-1139	(N/A)	17.23	J-1198
1975	J-1038	Lakes	TRUE	1.00	183.60	1.20	183.80	20.00	21.05	20.00	20.34	J-1039	(N/A)	17.23	J-1198
2146	J-1139	Lakes	TRUE	1.00	183.77	1.37	184.14	20.00	20.06	20.00	21.28	J-4202	(N/A)	17.23	J-1198
2420	J-1296	Lakes	TRUE	1.00	184.43	1.29	184.72	20.00	20.02	20.00	20.02	J-1295	(N/A)	17.23	J-1198
2419	J-1295	Lakes	TRUE	1.00	184.46	1.55	185.00	20.00	20.01	20.00	20.04	J-1296	(N/A)	17.23	J-1198
2505	J-1344	Lakes	TRUE	1.00	185.17	1.20	185.37	20.00	26.64	20.00	20.14	J-1466	(N/A)	17.23	J-1198
2469	J-1325	Lakes	TRUE	1.00	185.19	1.20	185.39	20.00	26.93	20.00	20.14	J-1466	(N/A)	17.23	J-1198
2468	J-1324	Lakes	TRUE	1.00	185.19	1.29	185.48	20.00	27.09	20.00	20.14	J-1466	(N/A)	17.23	J-1198
2762	J-1493	Lakes	TRUE	1.00	185.55	1.37	185.92	20.00	28.51	20.00	20.00	J-1466	(N/A)	17.23	J-1198
1698	J-859	Forest	TRUE	1.00	185.94	1.48	186.41	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2245	J-1199	Lakes	TRUE	1.00	186.52	1.81	187.32	20.00	20.00	20.00	27.67	J-1427	(N/A)	17.23	J-1198
3021	J-1624	Forest	TRUE	1.00	187.03	2.08	188.11	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2352	J-1261	Lakes	TRUE	1.00	189.21	1.72	189.93	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1709	J-866	Lakes	TRUE	1.00	189.45	1.20	189.65	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1938	J-1014	Lakes	TRUE	1.00	190.42	1.72	191.14	20.00	20.00	20.00	23.80	J-1013	(N/A)	17.23	J-1198
1791	J-919	Forest	TRUE	1.00	190.72	1.88	191.60	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2270	J-1214	Lakes	TRUE	1.00	190.88	2.06	191.94	20.00	20.02	20.00	23.83	J-1213	(N/A)	17.23	J-1198
8527	J-4215	Lakes	TRUE	1.00	191.40	1.72	192.12	20.00	31.78	20.00	20.08	J-839	(N/A)	17.23	J-1198
2941	J-1590	Lakes	TRUE	1.00	191.41	1.89	192.31	20.00	35.27	20.00	20.07	J-839	(N/A)	17.23	J-1198
1862	J-965	Forest	TRUE	1.00	191.42	2.28	192.70	20.00	20.07	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2940	J-1589	Lakes	TRUE	1.00	191.42	1.81	192.22	20.00	32.90	20.00	20.07	J-839	(N/A)	17.23	J-1198
2289	J-1225	Lakes	TRUE	1.00	191.72	1.89	192.61	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1668	J-839	Lakes	TRUE	1.00	191.74	1.37	192.11	20.00	20.00	20.00	31.24	J-1575	(N/A)	17.23	J-1198
2145	J-1138	Lakes	TRUE	1.00	192.83	1.20	193.03	20.00	20.10	20.00	21.64	J-1139	(N/A)	17.23	J-1198
1884	J-979	Forest	TRUE	1.00	194.08	1.88	194.96	20.00	20.01	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1890	J-983	Forest	TRUE	1.00	194.77	1.88	195.65	20.00	20.12	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1813	J-933	Forest	TRUE	1.00	195.44	1.48	195.92	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2281	J-1221	Lakes	TRUE	1.00	195.85	1.55	196.39	20.00	20.00	20.00	22.48	J-1427	(N/A)	17.23	J-1198
1855	J-960	Forest	TRUE	1.00	195.89	1.88	196.77	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
2619	J-1409	Lakes	TRUE	1.00	197.93	1.55	198.47	20.00	21.39	20.00	20.23	J-1138	(N/A)	17.23	J-1198
2227	J-1189	Lakes	TRUE	1.00	198.00	1.20	198.20	20.00	22.41	20.00	20.21	J-1138	(N/A)	17.23	J-1198
1932	J-1010	Lakes	TRUE	1.00	198.04	1.55	198.59	20.00	22.70	20.00	20.19	J-1138	(N/A)	17.23	J-1198
2650	J-1427	Lakes	TRUE	1.00	198.15	1.55	198.70	20.00	20.01	20.00	29.51	J-1220	(N/A)	17.23	J-1198
1767	J-904	Forest	TRUE	1.00	200.11	1.48	200.58	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
3024	J-1626	Forest	TRUE	1.00	200.84	4.69	204.53	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1712	J-868	Lakes	TRUE	1.00	200.85	1.46	201.31	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2548	J-1368	Lakes	TRUE	1.00	201.42	1.29	201.71	20.00	29.82	20.00	20.00	J-1466	(N/A)	17.23	J-1198
8467	J-4185	Lakes	TRUE	1.00	201.43	1.20	201.62	20.00	31.50	20.00	20.00	J-1466	(N/A)	17.23	J-1198
1959	J-1028	Forest	TRUE	1.00	201.95	1.48	202.43	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1859	J-963	Forest	TRUE	1.00	203.59	1.68	204.27	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
8465	J-4184	Lakes	TRUE	1.00	203.69	2.50	205.19	20.00	26.68	20.00	20.16	J-1466	(N/A)	17.23	J-1198
2620	J-1410	Lakes	TRUE	1.00	203.82	2.24	205.05	20.00	22.51	20.00	20.20	J-1138	(N/A)	17.23	J-1198
1881	J-977	Forest	TRUE	1.00	204.15	2.28	205.43	20.00	20.14	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2547	J-1367	Lakes	TRUE	1.00	204.16	1.29	204.45	20.00	27.66	20.00	20.00	J-1466	(N/A)	17.23	J-1198
1950	J-1022	Stewartsville	TRUE	1.00	205.14	1.40	205.54	20.00	20.04	20.00	60.33	J-676	(N/A)	17.23	J-1198
1662	J-835	Lakes	TRUE	1.00	205.79	1.20	205.99	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
8521	J-4212	Forest	TRUE	1.00	208.96	1.68	209.64	20.00	23.83	20.00	20.54	J-1264	(N/A)	17.20	J-1198
1853	J-959	Forest	TRUE	1.00	209.31	3.49	211.80	20.00	20.13	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2357	J-1264	Forest	TRUE	1.00	209.51	1.88	210.39	20.00	20.17	20.00	23.45	J-4212	(N/A)	17.20	J-1198
1796	J-922	Forest	TRUE	1.00	209.88	1.48	210.36	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
1955	J-1025	Lakes	TRUE	1.00	211.04	1.37	211.41	20.00	21.15	20.00	20.33	J-1026	(N/A)	17.23	J-1198
1992	J-1049	Lakes	TRUE	1.00	211.75	1.46	212.21	20.00	20.01	20.00	24.82	J-1120	(N/A)	17.23	J-1198
1871	J-971	Forest	TRUE	1.00	213.10	1.48	213.57	20.00	20.15	20.00	24.29	J-1197	(N/A)	17.2	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2098	J-1108	Lakes	TRUE	1.00	223.36	1.20	223.56	20.00	29.13	20.00	20.21	J-1199	(N/A)	17.23	J-1198
2117	J-1120	Lakes	TRUE	1.00	223.51	1.55	224.06	20.00	20.01	20.00	20.01	J-1049	(N/A)	17.23	J-1198
1865	J-967	Forest	TRUE	1.00	224.13	1.68	224.81	20.00	20.21	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1838	J-949	Forest	TRUE	1.00	224.51	1.48	224.99	20.00	20.04	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1832	J-945	Forest	TRUE	1.00	224.56	1.48	225.04	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2344	J-1257	Forest	TRUE	1.00	225.67	2.68	227.36	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1741	J-887	Forest	TRUE	1.00	226.04	1.68	226.72	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1674	J-843	Lakes	TRUE	1.00	227.35	1.20	227.55	20.00	20.00	20.00	32.47	J-1586	(N/A)	17.23	J-1198
1934	J-1011	Forest	TRUE	1.00	227.50	1.48	227.98	20.00	20.06	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1732	J-881	Forest	TRUE	1.00	228.59	1.48	229.07	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1816	J-935	Forest	TRUE	1.00	229.12	1.68	229.80	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1805	J-928	Forest	TRUE	1.00	230.64	1.48	231.12	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2333	J-1251	Lakes	TRUE	1.00	231.27	1.89	232.16	20.00	20.00	20.00	29.33	J-1586	(N/A)	17.23	J-1198
1697	J-858	Forest	TRUE	1.00	231.78	1.48	232.26	20.00	20.01	20.00	20.28	J-859	(N/A)	17.22	J-1198
2004	J-1057	Lakes	TRUE	1.00	232.76	1.46	233.22	20.00	20.00	20.00	26.38	J-1058	(N/A)	17.23	J-1198
2304	J-1235	Lakes	TRUE	1.00	236.18	1.63	236.81	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2276	J-1218	Forest	TRUE	1.00	237.74	1.88	238.62	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2258	J-1207	Forest	TRUE	1.00	239.06	1.88	239.94	20.00	20.02	20.00	24.20	J-1197	(N/A)	17.12	J-1198
5551	J-2957	Forest	TRUE	1.00	239.58	1.48	240.06	20.00	20.20	20.00	20.23	J-1591	(N/A)	17.23	J-1198
2945	J-1592	Forest	TRUE	1.00	239.64	1.68	240.32	20.00	22.21	20.00	20.19	J-2957	(N/A)	17.23	J-1198
8453	J-4179	Forest	TRUE	1.00	239.65	1.68	240.33	20.00	118.68	20.00	20.18	J-2957	(N/A)	17.23	J-1198
6157	J-3306	Forest	TRUE	1.00	239.65	1.68	240.33	20.00	51.46	20.00	20.18	J-2957	(N/A)	17.23	J-1198
6158	J-3307	Forest	TRUE	1.00	239.65	1.68	240.33	20.00	51.52	20.00	20.18	J-2957	(N/A)	17.23	J-1198
2029	J-1072	Forest	TRUE	1.00	239.65	1.48	240.13	20.00	51.40	20.00	20.18	J-2957	(N/A)	17.23	J-1198
6298	J-3391	Forest	TRUE	1.00	239.65	1.48	240.13	20.00	51.00	20.00	20.18	J-2957	(N/A)	17.23	J-1198
6297	J-3390	Forest	TRUE	1.00	239.65	1.28	239.93	20.00	50.64	20.00	20.18	J-2957	(N/A)	17.23	J-1198
5800	J-3102	Forest	TRUE	1.00	239.90	1.68	240.57	20.00	26.18	20.00	20.05	J-2957	(N/A)	17.23	J-1198
5799	J-3101	Forest	TRUE	1.00	239.92	1.08	239.99	20.00	26.01	20.00	20.04	J-2957	(N/A)	17.23	J-1198
2167	J-1152	Forest	TRUE	1.00	239.93	1.68	240.60	20.00	20.00	20.00	24.18	J-1197	(N/A)	17.10	J-1198
3175	J-1719	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	33.25	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4628	J-2432	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	32.31	20.00	20.00	J-2957	(N/A)	17.23	J-1198
2478	J-1329	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	32.13	20.00	20.00	J-2957	(N/A)	17.23	J-1198
3174	J-1718	Forest	TRUE	1.00	239.99	1.28	240.26	20.00	33.58	20.00	20.00	J-2957	(N/A)	17.23	J-1198
2479	J-1330	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	31.73	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4415	J-2318	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	31.86	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4627	J-2431	Forest	TRUE	1.00	239.99	1.48	240.46	20.00	32.23	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4978	J-2629	Forest	TRUE	1.00	239.99	1.28	240.26	20.00	32.75	20.00	20.00	J-2957	(N/A)	17.23	J-1198
5647	J-3013	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	29.48	20.00	20.00	J-2957	(N/A)	17.23	J-1198
5646	J-3012	Forest	TRUE	1.00	239.99	1.48	240.46	20.00	29.44	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4386	J-2309	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	28.35	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4972	J-2626	Forest	TRUE	1.00	239.99	1.28	240.26	20.00	28.41	20.00	20.00	J-2957	(N/A)	17.23	J-1198
1903	J-991	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	27.56	20.00	20.00	J-2957	(N/A)	17.23	J-1198
3124	J-1689	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	27.44	20.00	20.00	J-2957	(N/A)	17.23	J-1198
4848	J-2554	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	27.21	20.00	20.00	J-2957	(N/A)	17.23	J-1198
2944	J-1591	Forest	TRUE	1.00	239.99	1.08	240.06	20.00	20.01	20.00	20.00	J-2957	(N/A)	17.23	J-1198
2338	J-1253	Lakes	TRUE	1.00	240.18	2.41	241.59	20.00	20.11	20.00	32.50	J-1427	(N/A)	17.23	J-1198
1762	J-901	Forest	TRUE	1.00	240.95	1.88	241.83	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2187	J-1165	Lakes	TRUE	1.00	241.30	1.72	242.02	20.00	20.00	20.00	24.00	J-1164	(N/A)	17.23	J-1198
1794	J-921	Forest	TRUE	1.00	242.94	1.88	243.82	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2290	J-1226	Lakes	TRUE	1.00	247.81	1.55	248.35	20.00	24.08	20.00	20.07	J-1225	(N/A)	17.23	J-1198
1650	J-828	Fox_Run	TRUE	1.00	249.74	1.48	250.22	20.00	20.00	20.00	39.48	J-1337	(N/A)	17.23	J-1198
1799	J-924	Forest	TRUE	1.00	251.23	1.28	251.51	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1785	J-915	Forest	TRUE	1.00	251.51	1.88	252.39	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2186	J-1164	Lakes	TRUE	1.00	254.84	2.41	256.26	20.00	20.00	20.00	28.08	J-1165	(N/A)	17.23	J-1198
2909	J-1575	Lakes	TRUE	1.00	255.16	1.37	255.53	20.00	20.02	20.00	20.84	J-1360	(N/A)	17.23	J-1198
1753	J-895	Forest	TRUE	1.00	255.30	1.88	256.18	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2017	J-1065	Lakes	TRUE	1.00	255.33	1.63	255.96	20.00	37.42	20.00	20.00	J-1575	(N/A)	17.23	J-1198
2978	J-1605	Lakes	TRUE	1.00	255.33	2.06	256.40	20.00	45.55	20.00	20.00	J-1575	(N/A)	17.23	J-1198
1671	J-841	Stewartsville	TRUE	1.00	257.50	1.55	258.05	20.00	20.06	20.00	59.85	J-676	(N/A)	17.23	J-1198
7012	J-3811	Forest	TRUE	1.00	258.04	1.28	258.32	20.00	20.83	20.00	20.21	J-1602	(N/A)	17.23	J-1198
2972	J-1602	Forest	TRUE	1.00	258.49	1.28	258.77	20.00	20.00	20.00	20.68	J-3811	(N/A)	17.23	J-1198
1588	J-789	Lakes	TRUE	1.00	258.93	1.81	259.74	20.00	25.26	20.00	20.03	J-1622	(N/A)	17.23	J-1198
1728	J-878	Lakes	TRUE	1.00	259.85	1.55	260.40	20.00	21.92	20.00	20.09	J-879	(N/A)	17.23	J-1198
2273	J-1216	Lakes	TRUE	1.00	260.43	1.72	261.15	20.00	20.10	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2216	J-1182	Lakes	TRUE	1.00	262.24	2.06	263.30	20.00	20.02	20.00	21.18	J-1183	(N/A)	17.23	J-1198
1844	J-953	Forest	TRUE	1.00	262.26	1.88	263.14	20.00	20.02	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2263	J-1210	Lakes	TRUE	1.00	262.59	1.63	263.22	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2659	J-1432	Lakes	TRUE	1.00	267.99	1.72	268.71	20.00	22.03	20.00	20.07	J-1138	(N/A)	17.23	J-1198
2827	J-1531	Lakes	TRUE	1.00	268.55	2.15	269.70	20.00	38.34	20.00	20.00	J-1427	(N/A)	17.23	J-1198
2255	J-1205	Lakes	TRUE	1.00	268.56	2.24	269.80	20.00	27.31	20.00	20.00	J-1427	(N/A)	17.23	J-1198
1756	J-897	Forest	TRUE	1.00	269.78	1.48	270.25	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1788	J-917	Forest	TRUE	1.00	271.83	1.88	272.71	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.23	J-1198
2293	J-1228	Forest	TRUE	1.00	272.09	1.68	272.77	20.00	20.09	20.00	24.06	J-1197	(N/A)	16.98	J-1198
1835	J-947	Forest	TRUE	1.00	272.11	1.48	272.58	20.00	20.28	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1720	J-873	Forest	TRUE	1.00	272.34	1.48	272.82	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1639	J-822	Lakes	TRUE	1.00	274.57	1.20	274.77	20.00	20.02	20.00	21.22	J-866	(N/A)	17.23	J-1198
2219	J-1184	Lakes	TRUE	1.00	282.15	1.72	282.87	20.00	20.00	20.00	27.20	J-1586	(N/A)	17.23	J-1198
1759	J-899	Forest	TRUE	1.00	282.88	1.68	283.56	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2299	J-1232	Lakes	TRUE	1.00	285.40	1.55	285.95	20.00	20.00	20.00	31.27	J-1427	(N/A)	17.23	J-1198
1694	J-856	Forest	TRUE	1.00	287.48	1.08	287.56	20.00	20.01	20.00	24.30	J-1197			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1585	J-787	Forest	TRUE	1.00	310.16	1.28	310.44	20.00	20.03	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1573	J-779	Forest	TRUE	1.00	310.40	1.08	310.47	20.00	26.81	20.00	20.00	J-993	(N/A)	17.22	J-1198
1711	J-867	Lakes	TRUE	1.00	313.19	1.81	313.99	20.00	20.79	20.00	20.15	J-868	(N/A)	17.23	J-1198
1928	J-1007	Lakes	TRUE	1.00	313.25	1.37	313.62	20.00	20.02	20.00	23.78	J-1026	(N/A)	17.23	J-1198
1583	J-786	Forest	TRUE	1.00	314.84	1.28	315.12	20.00	20.03	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1908	J-994	Lakes	TRUE	1.00	314.88	1.20	315.08	20.00	20.55	20.00	20.16	J-868	(N/A)	17.23	J-1198
1986	J-1045	Lakes	TRUE	1.00	316.57	1.37	316.94	20.00	20.03	20.00	20.14	J-868	(N/A)	17.23	J-1198
1969	J-1034	Lakes	TRUE	1.00	322.72	1.46	323.18	20.00	20.07	20.00	24.79	J-1294	(N/A)	17.23	J-1198
1582	J-785	Forest	TRUE	1.00	324.58	1.08	324.65	20.00	20.52	20.00	20.29	J-786	(N/A)	17.22	J-1198
2100	J-1109	Lakes	TRUE	1.00	325.57	1.20	325.77	20.00	20.01	20.00	25.03	J-1110	(N/A)	17.23	J-1198
2319	J-1243	Lakes	TRUE	1.00	326.08	2.41	327.49	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2954	J-1596	Lakes	TRUE	1.00	326.18	1.89	327.07	20.00	20.08	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2949	J-1594	Lakes	TRUE	1.00	326.32	1.81	327.13	20.00	20.05	20.00	23.03	J-1138	(N/A)	17.23	J-1198
2951	J-1595	Lakes	TRUE	1.00	327.20	1.55	327.74	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1579	J-783	Forest	TRUE	1.00	334.28	1.88	335.16	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1824	J-940	Forest	TRUE	1.00	335.38	1.88	336.26	20.00	20.00	20.00	20.00	J-941	(N/A)	17.22	J-1198
2309	J-1238	Forest	TRUE	1.00	338.59	2.08	339.67	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1654	J-830	Forest	TRUE	1.00	342.39	1.48	342.87	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2248	J-1201	Forest	TRUE	1.00	344.45	1.88	345.33	20.00	20.00	20.00	24.31	J-1197	(N/A)	17.23	J-1198
1580	J-784	Forest	TRUE	1.00	347.98	1.68	348.66	20.00	20.01	20.00	20.07	J-783	(N/A)	17.22	J-1198
2556	J-1373	Lakes	TRUE	1.00	350.01	1.20	350.21	20.00	20.04	20.00	22.40	J-822	(N/A)	17.23	J-1198
2106	J-1113	Lakes	TRUE	1.00	350.22	1.72	350.94	20.00	21.35	20.00	20.13	J-1007	(N/A)	17.23	J-1198
2957	J-1597	Lakes	TRUE	1.00	350.67	3.80	353.46	20.00	20.00	20.00	23.35	J-822	(N/A)	17.23	J-1198
2981	J-1607	Lakes	TRUE	1.00	352.16	1.63	352.80	20.00	20.00	20.00	32.13	J-1586	(N/A)	17.23	J-1198
2101	J-1110	Lakes	TRUE	1.00	352.89	1.20	353.09	20.00	20.01	20.00	20.05	J-1109	(N/A)	17.23	J-1198
1665	J-837	Forest	TRUE	1.00	353.24	1.28	353.52	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2314	J-1241	Forest	TRUE	1.00	353.78	2.08	354.86	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2220	J-1185	Lakes	TRUE	1.00	353.94	1.89	354.83	20.00	20.00	20.00	22.06	J-1184	(N/A)	17.23	J-1198
2417	J-1294	Lakes	TRUE	1.00	354.02	1.20	354.22	20.00	20.00	20.00	20.10	J-825	(N/A)	17.23	J-1198
2229	J-1190	Forest	TRUE	1.00	354.50	1.88	355.38	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1644	J-825	Lakes	TRUE	1.00	354.67	1.20	354.87	20.00	20.00	20.00	20.00	J-1294	(N/A)	17.23	J-1198
1602	J-798	Forest	TRUE	1.00	355.25	1.08	355.32	20.00	20.65	20.00	20.29	J-786	(N/A)	17.22	J-1198
1703	J-862	Forest	TRUE	1.00	356.46	1.08	356.54	20.00	20.43	20.00	20.26	J-2703	(N/A)	17.20	J-1198
1995	J-1051	Fox_Run	TRUE	1.00	356.65	1.08	356.72	20.00	20.64	20.00	20.13	J-828	(N/A)	17.23	J-1198
1649	J-827	Fox_Run	TRUE	1.00	356.67	1.08	356.74	20.00	21.06	20.00	20.13	J-828	(N/A)	17.23	J-1198
5106	J-2703	Forest	TRUE	1.00	357.05	1.48	357.53	20.00	20.01	20.00	20.20	J-862	(N/A)	17.20	J-1198
1638	J-821	Lakes	TRUE	1.00	360.66	1.20	360.86	20.00	20.05	20.00	20.05	J-822	(N/A)	17.23	J-1198
2455	J-1316	Lakes	TRUE	1.00	362.25	1.20	362.45	20.00	20.32	20.00	20.15	J-822	(N/A)	17.23	J-1198
2207	J-1177	Forest	TRUE	1.00	365.78	1.88	366.66	20.00	20.00	20.00	23.75	J-1197	(N/A)	16.68	J-1198
2213	J-1180	Lakes	TRUE	1.00	367.03	1.72	367.75	20.00	20.00	20.00	24.01	J-1181	(N/A)	17.23	J-1198
1676	J-844	Lakes	TRUE	1.00	367.32	1.20	367.51	20.00	21.32	20.00	20.13	J-822	(N/A)	17.23	J-1198
1999	J-1054	Lakes	TRUE	1.00	369.20	1.55	369.74	20.00	20.01	20.00	28.19	J-1053	(N/A)	17.23	J-1198
1943	J-1017	Forest	TRUE	1.00	369.28	1.68	369.96	20.00	20.63	20.00	20.14	J-1018	(N/A)	16.73	J-1198
2447	J-1312	Forest	TRUE	1.00	370.80	3.29	373.09	20.00	20.01	20.00	20.17	J-1311	(N/A)	17.22	J-1198
2446	J-1311	Forest	TRUE	1.00	371.15	1.88	372.03	20.00	20.04	20.00	20.21	J-1312	(N/A)	17.22	J-1198
2126	J-1126	Forest	TRUE	1.00	371.68	1.48	372.16	20.00	20.02	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2985	J-1609	Fox_Run	TRUE	1.00	371.85	2.28	373.13	20.00	23.43	20.00	20.13	J-1337	(N/A)	17.23	J-1198
2494	J-1338	Fox_Run	TRUE	1.00	371.88	1.28	372.16	20.00	21.72	20.00	20.12	J-1337	(N/A)	17.23	J-1198
2143	J-1137	Forest	TRUE	1.00	372.24	1.68	372.92	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2493	J-1337	Fox_Run	TRUE	1.00	372.53	1.68	373.21	20.00	20.00	20.00	21.40	J-828	(N/A)	17.23	J-1198
2334	J-1252	Lakes	TRUE	1.00	375.27	2.24	376.50	20.00	20.00	20.00	22.43	J-1586	(N/A)	17.23	J-1198
2440	J-1308	Lakes	TRUE	1.00	375.43	1.37	375.81	20.00	20.78	20.00	20.14	J-822	(N/A)	17.23	J-1198
2414	J-1292	Lakes	TRUE	1.00	375.49	1.20	375.69	20.00	21.31	20.00	20.13	J-822	(N/A)	17.23	J-1198
2415	J-1293	Lakes	TRUE	1.00	375.50	1.20	375.70	20.00	21.36	20.00	20.13	J-822	(N/A)	17.23	J-1198
2990	J-1612	Forest	TRUE	1.00	381.19	1.88	382.07	20.00	20.00	20.00	24.07	J-1197	(N/A)	16.99	J-1198
7004	J-3806	Forest	TRUE	1.00	387.86	1.08	387.94	20.00	34.32	20.00	20.00	J-1602	(N/A)	17.22	J-1198
2994	J-1614	Forest	TRUE	1.00	387.87	1.28	388.14	20.00	32.77	20.00	20.00	J-1602	(N/A)	17.22	J-1198
2233	J-1192	Forest	TRUE	1.00	388.41	1.88	389.29	20.00	20.03	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1731	J-880	Forest	TRUE	1.00	390.54	1.48	391.02	20.00	22.04	20.00	20.22	J-881	(N/A)	17.22	J-1198
2266	J-1212	Forest	TRUE	1.00	391.05	1.88	391.93	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2132	J-1130	Forest	TRUE	1.00	391.24	1.88	392.12	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1701	J-861	Forest	TRUE	1.00	392.86	1.68	393.54	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2191	J-1167	Forest	TRUE	1.00	394.96	2.88	396.85	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1667	J-838	Lakes	TRUE	1.00	396.38	1.20	396.58	20.00	20.00	20.00	22.27	J-839	(N/A)	17.23	J-1198
2257	J-1206	Forest	TRUE	1.00	398.05	1.88	398.93	20.00	20.00	20.00	23.40	J-1207	(N/A)	16.99	J-1198
2262	J-1209	Lakes	TRUE	1.00	399.16	2.06	400.22	20.00	20.00	20.00	23.72	J-1210	(N/A)	17.23	J-1198
5182	J-2745	Forest	TRUE	1.00	402.80	1.68	403.48	20.00	20.35	20.00	20.27	J-846	(N/A)	17.20	J-1198
1679	J-846	Forest	TRUE	1.00	403.52	1.08	403.59	20.00	20.03	20.00	20.14	J-2745	(N/A)	17.20	J-1198
2703	J-1458	Lakes	TRUE	1.00	405.19	1.72	405.91	20.00	20.00	20.00	28.00	J-1459	(N/A)	17.23	J-1198
2095	J-1106	Forest	TRUE	1.00	405.29	1.48	405.77	20.00	20.03	20.00	21.82	J-1105	(N/A)	17.22	J-1198
1689	J-853	Forest	TRUE	1.00	405.74	1.88	406.62	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2914	J-1577	Lakes	TRUE	1.00	406.19	1.89	407.08	20.00	20.01	20.00	31.51	J-1586	(N/A)	17.23	J-1198
2236	J-1194	Lakes	TRUE	1.00	408.54	1.98	409.52	20.00	20.00	20.00	27.43	J-1180	(N/A)	17.23	J-1198
1692	J-855	Forest	TRUE	1.00	410.53	2.88	412.42	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1706	J-864	Forest	TRUE	1.00	412.05	1.88	412.93	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2172	J-1155	Forest	TRUE	1.00	415.04	1.68	415.72	20.00	20.02	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2094	J-1105	Forest	TRUE	1.00	415.75	2.28	417.03	20.00	20.01	20.00	20.52	J-1106	(N/A)	17.22	J-1198
2933	J-1586	Lakes	TRUE	1.00	415.84	1.63	416.47	20.00	20.01	20.00	30.15	J-1550	(N/A)	17.23	J-1198
3004	J-1618	Forest	TRUE	1.00	418.07	2.28	419.35	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2999	J-1616	Lakes	TRUE	1.00	421.68	4.32	425.00	20.00	20.00	20.00	26.56	J-1427	(N/A)	17.23	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2704	J-1459	Lakes	TRUE	1.00	459.86	1.72	460.58	20.00	20.00	20.00	21.07	J-1596	(N/A)	17.23	J-1198
1856	J-961	Forest	TRUE	1.00	463.56	1.88	464.44	20.00	20.05	20.00	22.13	J-960	(N/A)	17.22	J-1198
2298	J-1231	Lakes	TRUE	1.00	464.25	1.89	465.15	20.00	20.01	20.00	24.80	J-1427	(N/A)	17.23	J-1198
2120	J-1122	Forest	TRUE	1.00	466.37	1.68	467.05	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2883	J-1562	Forest	TRUE	1.00	470.16	2.08	471.24	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
1764	J-902	Forest	TRUE	1.00	471.37	1.88	472.25	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2636	J-1419	Forest	TRUE	1.00	474.21	1.48	474.69	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2253	J-1204	Forest	TRUE	1.00	474.79	2.28	476.07	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
1725	J-876	Forest	TRUE	1.00	484.48	1.68	485.16	20.00	21.38	20.00	20.00	J-877	(N/A)	17.23	J-1198
2140	J-1135	Forest	TRUE	1.00	484.48	1.68	485.16	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2669	J-1437	Lakes	TRUE	1.00	484.51	1.46	484.97	20.00	20.58	20.00	20.07	J-1595	(N/A)	17.23	J-1198
1765	J-903	Forest	TRUE	1.00	484.84	1.88	485.72	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2433	J-1304	Lakes	TRUE	1.00	485.45	1.20	485.65	20.00	20.00	20.00	20.66	J-905	(N/A)	17.23	J-1198
2670	J-1438	Lakes	TRUE	1.00	487.17	1.89	488.06	20.00	20.02	20.00	25.37	J-1480	(N/A)	17.23	J-1198
1769	J-905	Lakes	TRUE	1.00	487.25	1.20	487.45	20.00	20.37	20.00	20.08	J-1304	(N/A)	17.23	J-1198
1657	J-832	Forest	TRUE	1.00	488.80	1.88	489.68	20.00	20.01	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2161	J-1148	Forest	TRUE	1.00	490.80	2.28	492.08	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1920	J-1002	Forest	TRUE	1.00	491.13	1.48	491.61	20.00	20.04	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2272	J-1215	Lakes	TRUE	1.00	497.95	1.63	498.58	20.00	20.00	20.00	23.06	J-1209	(N/A)	17.23	J-1198
2997	J-1615	Forest	TRUE	1.00	501.20	1.48	501.68	20.00	20.01	20.00	24.27	J-1197	(N/A)	17.19	J-1198
4282	J-2275	Lakes	TRUE	1.00	506.12	1.46	506.58	20.00	20.03	20.00	26.70	J-1852	(N/A)	17.23	J-1198
2238	J-1195	Lakes	TRUE	1.00	509.78	1.55	510.32	20.00	20.01	20.00	26.61	J-1586	(N/A)	17.23	J-1198
1652	J-829	Forest	TRUE	1.00	510.54	1.28	510.82	20.00	20.38	20.00	20.14	J-786	(N/A)	17.22	J-1198
2170	J-1154	Forest	TRUE	1.00	511.44	2.28	512.72	20.00	20.00	20.00	24.25	J-1197	(N/A)	17.17	J-1198
1774	J-908	Forest	TRUE	1.00	512.67	1.28	512.95	20.00	20.00	20.00	20.25	J-909	(N/A)	17.22	J-1198
2823	J-1529	Forest	TRUE	1.00	517.52	2.08	518.60	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2818	J-1526	Forest	TRUE	1.00	522.73	1.68	523.41	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
4433	J-2323	Lakes	TRUE	1.00	529.62	2.24	530.86	20.00	20.00	20.00	32.74	J-1575	(N/A)	17.23	J-1198
2339	J-1254	Lakes	TRUE	1.00	534.02	1.89	534.91	20.00	20.01	20.00	21.61	J-1427	(N/A)	17.23	J-1198
2199	J-1172	Forest	TRUE	1.00	534.81	1.68	535.49	20.00	20.05	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2431	J-1303	Lakes	TRUE	1.00	546.05	2.58	547.64	20.00	20.01	20.00	20.55	J-1302	(N/A)	17.23	J-1198
2202	J-1174	Lakes	TRUE	1.00	547.54	1.37	547.91	20.00	26.66	20.00	20.00	J-1007	(N/A)	17.23	J-1198
2149	J-1141	Forest	TRUE	1.00	547.66	1.88	548.54	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2430	J-1302	Lakes	TRUE	1.00	548.63	1.55	549.17	20.00	20.16	20.00	20.08	J-1303	(N/A)	17.23	J-1198
2164	J-1150	Forest	TRUE	1.00	550.13	2.08	551.21	20.00	20.03	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2854	J-1547	Forest	TRUE	1.00	552.99	2.08	554.08	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3405	J-1852	Lakes	TRUE	1.00	554.88	1.20	555.08	20.00	20.26	20.00	20.07	J-2275	(N/A)	17.23	J-1198
2682	J-1445	Lakes	TRUE	1.00	554.95	1.20	555.15	20.00	20.64	20.00	20.06	J-2275	(N/A)	17.23	J-1198
2173	J-1156	Forest	TRUE	1.00	556.08	1.68	556.76	20.00	20.08	20.00	21.62	J-1190	(N/A)	17.22	J-1198
2211	J-1179	Forest	TRUE	1.00	557.11	1.48	557.58	20.00	20.06	20.00	24.26	J-1197	(N/A)	17.18	J-1198
2614	J-1406	Forest	TRUE	1.00	559.48	1.88	560.36	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2913	J-1576	Lakes	TRUE	1.00	559.76	1.29	560.04	20.00	20.06	20.00	21.26	J-2275	(N/A)	17.23	J-1198
3183	J-1724	Forest	TRUE	1.00	561.18	1.08	561.26	20.00	20.06	20.00	20.15	J-1725	(N/A)	17.17	J-1198
1804	J-927	Forest	TRUE	1.00	561.40	2.08	562.48	20.00	21.19	20.00	20.11	J-1725	(N/A)	17.17	J-1198
3184	J-1725	Forest	TRUE	1.00	561.60	1.08	561.68	20.00	20.06	20.00	20.13	J-1724	(N/A)	17.17	J-1198
1620	J-810	Forest	TRUE	1.00	562.47	1.08	562.54	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2466	J-1323	Forest	TRUE	1.00	565.34	1.28	565.62	20.00	20.00	20.00	21.47	J-1310	(N/A)	17.22	J-1198
2181	J-1161	Forest	TRUE	1.00	566.26	1.88	567.14	20.00	20.03	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2680	J-1444	Lakes	TRUE	1.00	566.57	2.06	567.64	20.00	36.52	20.00	20.00	J-1427	(N/A)	17.23	J-1198
2799	J-1515	Lakes	TRUE	1.00	566.61	2.24	567.84	20.00	26.08	20.00	20.00	J-1427	(N/A)	17.23	J-1198
1633	J-818	Forest	TRUE	1.00	570.79	2.68	572.47	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2444	J-1310	Forest	TRUE	1.00	571.07	1.08	571.15	20.00	20.36	20.00	20.10	J-1323	(N/A)	17.22	J-1198
5955	J-3188	Forest	TRUE	1.00	574.69	1.08	574.77	20.00	20.00	20.00	20.16	J-1323	(N/A)	17.22	J-1198
2443	J-1309	Forest	TRUE	1.00	574.75	1.28	575.03	20.00	20.35	20.00	20.10	J-3188	(N/A)	17.22	J-1198
2884	J-1563	Forest	TRUE	1.00	578.23	1.68	578.90	20.00	20.02	20.00	24.25	J-1197	(N/A)	17.17	J-1198
2137	J-1133	Forest	TRUE	1.00	578.69	1.88	579.57	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1617	J-808	Forest	TRUE	1.00	579.26	1.68	579.94	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2769	J-1497	Forest	TRUE	1.00	581.47	1.88	582.35	20.00	20.03	20.00	24.29	J-1197	(N/A)	17.21	J-1198
6281	J-3381	Forest	TRUE	1.00	581.80	1.88	582.68	20.00	20.16	20.00	20.03	J-2045	(N/A)	16.77	J-1198
3747	J-2045	Forest	TRUE	1.00	582.03	1.68	582.71	20.00	20.02	20.00	20.26	J-3381	(N/A)	16.77	J-1198
1761	J-900	Forest	TRUE	1.00	583.72	1.08	583.80	20.00	20.00	20.00	23.55	J-901	(N/A)	17.22	J-1198
2777	J-1502	Forest	TRUE	1.00	584.82	2.08	585.90	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2980	J-1606	Lakes	TRUE	1.00	585.00	1.55	585.55	20.00	20.04	20.00	23.90	J-1143	(N/A)	17.23	J-1198
3667	J-1999	Forest	TRUE	1.00	585.16	1.28	585.44	20.00	26.25	20.00	20.00	J-1725	(N/A)	17.17	J-1198
5967	J-3194	Forest	TRUE	1.00	585.16	1.28	585.44	20.00	26.42	20.00	20.00	J-1725	(N/A)	17.17	J-1198
1655	J-831	Forest	TRUE	1.00	586.76	1.68	587.44	20.00	20.02	20.00	20.72	J-830	(N/A)	17.17	J-1198
2183	J-1162	Forest	TRUE	1.00	587.45	1.68	588.13	20.00	20.02	20.00	24.26	J-1197	(N/A)	17.18	J-1198
2848	J-1543	Forest	TRUE	1.00	591.71	1.68	592.39	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2350	J-1260	Lakes	TRUE	1.00	592.21	1.72	592.93	20.00	20.00	20.00	23.60	J-1243	(N/A)	17.23	J-1198
2155	J-1144	Forest	TRUE	1.00	592.49	1.68	593.17	20.00	20.02	20.00	24.30	J-1197	(N/A)	17.22	J-1198
4236	J-2260	Forest	TRUE	1.00	594.80	2.28	596.08	20.00	39.77	20.00	20.00	J-1725	(N/A)	17.17	J-1198
3666	J-1998	Forest	TRUE	1.00	594.80	2.08	595.88	20.00	26.25	20.00	20.00	J-1725	(N/A)	17.17	J-1198
6504	J-3511	Forest	TRUE	1.00	596.05	1.68	596.73	20.00	20.15	20.00	20.09	J-1894	(N/A)	17.21	J-1198
3475	J-1893	Forest	TRUE	1.00	596.11	1.28	596.39	20.00	20.40	20.00	20.08	J-1894	(N/A)	17.21	J-1198
3476	J-1894	Forest	TRUE	1.00	596.62	1.48	597.10	20.00	20.00	20.00	20.20	J-3511	(N/A)	17.21	J-1198
2919	J-1579	Forest	TRUE	1.00	598.21	3.49	600.70	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2890	J-1566	Forest	TRUE	1.00	600.95	1.88	601.83	20.00	20.04	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2114	J-1118	Forest	TRUE	1.00	605.62	1.48	606.10	20.00	20.10	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2657	J-1431	Forest	TRUE	1.00	608.68	1.88	609.56	20.00	20.01	20.00	24.29	J-1197	(N/A)	17.21	J-1198
1952	J-1023	Forest	TRUE	1.00	609.85	2.68	611.54	20.00	20.00	20.00	24.22	J-119			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1646	J-826	Lakes	TRUE	1.00	629.70	1.20	629.90	20.00	20.02	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2560	J-1375	Lakes	TRUE	1.00	632.97	1.55	633.51	20.00	20.42	20.00	20.02	J-1575	(N/A)	17.23	J-1198
3699	J-2018	Forest	TRUE	1.00	633.65	1.08	633.73	20.00	44.20	20.00	20.00	J-2045	(N/A)	16.71	J-1198
2989	J-1611	Forest	TRUE	1.00	633.65	1.08	633.73	20.00	47.10	20.00	20.00	J-2045	(N/A)	16.71	J-1198
3081	J-1662	Forest	TRUE	1.00	633.65	1.28	633.93	20.00	47.15	20.00	20.00	J-2045	(N/A)	16.71	J-1198
6148	J-3301	Forest	TRUE	1.00	633.65	1.48	634.13	20.00	43.98	20.00	20.00	J-2045	(N/A)	16.71	J-1198
1978	J-1040	Forest	TRUE	1.00	633.65	1.48	634.13	20.00	40.34	20.00	20.00	J-2045	(N/A)	16.71	J-1198
3746	J-2044	Forest	TRUE	1.00	633.65	1.68	634.33	20.00	31.29	20.00	20.00	J-2045	(N/A)	16.71	J-1198
2811	J-1522	Forest	TRUE	1.00	639.43	2.28	640.71	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
4358	J-2298	Forest	TRUE	1.00	639.89	1.68	640.57	20.00	23.02	20.00	20.00	J-3188	(N/A)	17.22	J-1198
6895	J-3743	Forest	TRUE	1.00	639.89	1.68	640.57	20.00	22.79	20.00	20.00	J-3188	(N/A)	17.22	J-1198
2635	J-1418	Forest	TRUE	1.00	641.08	1.48	641.56	20.00	22.88	20.00	20.00	J-941	(N/A)	17.21	J-1198
5961	J-3191	Forest	TRUE	1.00	641.08	1.68	641.76	20.00	22.99	20.00	20.00	J-941	(N/A)	17.21	J-1198
2851	J-1545	Forest	TRUE	1.00	641.61	1.68	642.29	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
6950	J-3775	Forest	TRUE	1.00	642.82	1.08	642.89	20.00	20.00	20.00	20.65	J-2248	(N/A)	17.21	J-1198
4196	J-2248	Forest	TRUE	1.00	643.92	1.28	644.20	20.00	20.48	20.00	20.07	J-3775	(N/A)	17.21	J-1198
2786	J-1508	Forest	TRUE	1.00	652.36	2.08	653.44	20.00	20.06	20.00	24.25	J-1197	(N/A)	17.17	J-1198
4170	J-2238	Forest	TRUE	1.00	656.37	1.48	656.85	20.00	36.89	20.00	20.00	J-1608	(N/A)	17.16	J-1198
2964	J-1598	Forest	TRUE	1.00	656.38	1.28	656.65	20.00	31.82	20.00	20.00	J-1608	(N/A)	17.16	J-1198
3311	J-1801	Forest	TRUE	1.00	656.44	1.48	656.92	20.00	31.26	20.00	20.00	J-1608	(N/A)	17.16	J-1198
5753	J-3075	Forest	TRUE	1.00	656.44	1.08	656.52	20.00	30.50	20.00	20.00	J-1608	(N/A)	17.16	J-1198
3467	J-1888	Forest	TRUE	1.00	658.34	1.08	658.42	20.00	20.00	20.00	20.14	J-1608	(N/A)	17.16	J-1198
3466	J-1887	Forest	TRUE	1.00	660.03	1.48	660.50	20.00	20.06	20.00	20.25	J-3323	(N/A)	17.16	J-1198
6186	J-3323	Forest	TRUE	1.00	660.43	1.68	661.11	20.00	20.04	20.00	20.00	J-1887	(N/A)	17.16	J-1198
4843	J-2551	Forest	TRUE	1.00	660.47	1.08	660.55	20.00	20.00	20.00	20.18	J-2013	(N/A)	17.21	J-1198
3691	J-2013	Forest	TRUE	1.00	660.56	1.68	661.24	20.00	20.17	20.00	20.07	J-2551	(N/A)	17.21	J-1198
2783	J-1506	Forest	TRUE	1.00	662.96	2.08	664.04	20.00	20.07	20.00	24.30	J-1197	(N/A)	17.22	J-1198
2690	J-1450	Forest	TRUE	1.00	664.90	2.08	665.98	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2611	J-1404	Forest	TRUE	1.00	666.48	1.68	667.16	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2801	J-1516	Forest	TRUE	1.00	667.06	1.88	667.94	20.00	20.01	20.00	24.26	J-1197	(N/A)	17.18	J-1198
2974	J-1603	Forest	TRUE	1.00	667.27	2.08	668.35	20.00	20.01	20.00	24.25	J-1197	(N/A)	17.17	J-1198
1714	J-869	Forest	TRUE	1.00	667.38	1.88	668.26	20.00	20.03	20.00	22.78	J-870	(N/A)	17.21	J-1198
2708	J-1461	Forest	TRUE	1.00	668.19	2.28	669.47	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
6702	J-3629	Forest	TRUE	1.00	670.67	1.28	670.95	20.00	20.00	20.00	20.17	J-2267	(N/A)	17.16	J-1198
4259	J-2267	Forest	TRUE	1.00	671.96	1.68	672.64	20.00	20.04	20.00	20.07	J-3629	(N/A)	17.16	J-1198
2749	J-1486	Forest	TRUE	1.00	672.38	2.08	673.46	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.21	J-1198
5430	J-2889	Forest	TRUE	1.00	672.93	1.48	673.41	20.00	20.22	20.00	20.08	J-1918	(N/A)	17.21	J-1198
2131	J-1129	Forest	TRUE	1.00	673.09	1.68	673.77	20.00	20.00	20.00	22.05	J-1130	(N/A)	17.21	J-1198
2234	J-1193	Forest	TRUE	1.00	673.25	1.48	673.73	20.00	21.19	20.00	20.04	J-1918	(N/A)	17.21	J-1198
3517	J-1918	Forest	TRUE	1.00	673.54	1.88	674.42	20.00	20.00	20.00	20.25	J-2889	(N/A)	17.21	J-1198
2815	J-1524	Forest	TRUE	1.00	673.73	1.48	674.21	20.00	20.00	20.00	24.25	J-1197	(N/A)	17.17	J-1198
3884	J-2110	Forest	TRUE	1.00	674.98	2.08	676.06	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3692	J-2014	Forest	TRUE	1.00	680.07	2.48	681.55	20.00	20.00	20.00	20.64	J-2551	(N/A)	17.21	J-1198
1737	J-884	Forest	TRUE	1.00	681.31	1.28	681.59	20.00	22.81	20.00	20.06	J-885	(N/A)	17.22	J-1198
2817	J-1525	Forest	TRUE	1.00	684.27	1.88	685.15	20.00	20.04	20.00	20.25	J-3428	(N/A)	17.22	J-1198
6360	J-3428	Forest	TRUE	1.00	684.58	2.28	685.86	20.00	20.05	20.00	20.00	J-1525	(N/A)	17.22	J-1198
1628	J-815	Forest	TRUE	1.00	687.74	1.48	688.22	20.00	20.04	20.00	24.27	J-1197	(N/A)	17.19	J-1198
5149	J-2726	Forest	TRUE	1.00	691.51	1.88	692.39	20.00	20.00	20.00	20.30	J-2165	(N/A)	17.21	J-1198
4005	J-2165	Forest	TRUE	1.00	691.98	2.08	693.06	20.00	20.25	20.00	20.06	J-2726	(N/A)	17.21	J-1198
2122	J-1123	Forest	TRUE	1.00	699.49	1.88	700.37	20.00	20.02	20.00	24.26	J-1197	(N/A)	17.19	J-1198
5867	J-3139	Forest	TRUE	1.00	700.83	1.08	700.91	20.00	42.44	20.00	20.00	J-1764	(N/A)	17.21	J-1198
4374	J-2303	Forest	TRUE	1.00	700.83	1.08	700.91	20.00	41.38	20.00	20.00	J-1764	(N/A)	17.21	J-1198
2166	J-1151	Forest	TRUE	1.00	702.19	1.08	702.27	20.00	23.68	20.00	20.00	J-1152	(N/A)	16.61	J-1198
2178	J-1159	Forest	TRUE	1.00	704.72	1.68	705.40	20.00	20.09	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3162	J-1712	Forest	TRUE	1.00	705.49	1.48	705.97	20.00	23.90	20.00	20.00	J-1152	(N/A)	16.61	J-1198
6709	J-3633	Forest	TRUE	1.00	705.49	1.88	706.37	20.00	24.19	20.00	20.00	J-1152	(N/A)	16.61	J-1198
2584	J-1388	Forest	TRUE	1.00	707.92	2.28	709.21	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.22	J-1198
1793	J-920	Forest	TRUE	1.00	710.10	1.48	710.58	20.00	20.00	20.00	23.39	J-921	(N/A)	17.22	J-1198
2701	J-1457	Forest	TRUE	1.00	712.24	1.68	712.92	20.00	20.03	20.00	24.30	J-1197	(N/A)	17.22	J-1198
5695	J-3041	Forest	TRUE	1.00	713.51	1.08	713.59	20.00	20.35	20.00	20.17	J-1952	(N/A)	17.21	J-1198
2115	J-1119	Forest	TRUE	1.00	713.79	1.48	714.27	20.00	22.89	20.00	20.10	J-1952	(N/A)	17.21	J-1198
3579	J-1952	Forest	TRUE	1.00	714.19	1.08	714.26	20.00	20.00	20.00	20.02	J-1211	(N/A)	17.21	J-1198
2265	J-1211	Forest	TRUE	1.00	714.26	1.08	714.34	20.00	20.00	20.00	21.64	J-1952	(N/A)	17.21	J-1198
2605	J-1401	Forest	TRUE	1.00	715.24	1.08	715.32	20.00	20.02	20.00	20.12	J-2544	(N/A)	17.22	J-1198
4831	J-2544	Forest	TRUE	1.00	715.30	1.08	715.38	20.00	20.02	20.00	20.02	J-1401	(N/A)	17.22	J-1198
3885	J-2111	Forest	TRUE	1.00	715.56	1.48	716.04	20.00	23.24	20.00	20.00	J-2110	(N/A)	17.21	J-1198
6939	J-3769	Forest	TRUE	1.00	715.56	1.88	716.44	20.00	22.51	20.00	20.00	J-2110	(N/A)	17.21	J-1198
2760	J-1492	Lakes	TRUE	1.00	719.46	1.37	719.84	20.00	27.00	20.00	20.00	J-1586	(N/A)	17.23	J-1198
3230	J-1753	Lakes	TRUE	1.00	719.46	1.20	719.66	20.00	26.75	20.00	20.00	J-1586	(N/A)	17.23	J-1198
6616	J-3578	Forest	TRUE	1.00	721.61	1.28	721.88	20.00	27.63	20.00	20.00	J-3188	(N/A)	17.22	J-1198
4357	J-2297	Forest	TRUE	1.00	721.61	1.68	722.29	20.00	27.60	20.00	20.00	J-3188	(N/A)	17.22	J-1198
2896	J-1569	Forest	TRUE	1.00	724.71	1.88	725.59	20.00	20.00	20.00	24.24	J-1197	(N/A)	17.17	J-1198
6370	J-3434	Lakes	TRUE	1.00	726.57	1.20	726.77	20.00	26.27	20.00	20.00	J-1586	(N/A)	17.23	J-1198
3229	J-1752	Lakes	TRUE	1.00	726.57	1.20	726.77	20.00	26.29	20.00	20.00	J-1586	(N/A)	17.23	J-1198
1664	J-836	Forest	TRUE	1.00	726.92	1.88	727.80	20.00	20.05	20.00	21.27	J-837	(N/A)	17.20	J-1198
2893	J-1568	Forest	TRUE	1.00	731.71	1.48	732.19	20.00	20.00	20.00	24.24	J-1197	(N/A)	17.16	J-1198
2675	J-1441	Forest	TRUE	1.00	734.60	2.08	735.68	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1614	J-806	Forest	TRUE	1.00	739.55	1.68	740.23	20.00	20.04	20.00	24.25	J-1197	(N/A)	17.17	J-1198
2464	J-1322	Forest	TRUE	1.00	739.89	1.68	740.57	20.00	20.04	20.00	20.67	J-1386	(N/A)	17.18	J-1198
2929	J-1585	Forest	TRUE	1.00	742.79	2.48	744.27	20.00	20.01	20.00	24.24</				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3091	J-1668	Forest	TRUE	1.00	775.18	1.08	775.25	20.00	20.21	20.00	20.12	J-2384	(N/A)	17.20	J-1198
4546	J-2384	Forest	TRUE	1.00	775.45	1.88	776.33	20.00	20.00	20.00	20.08	J-1667	(N/A)	17.20	J-1198
3090	J-1667	Forest	TRUE	1.00	775.93	1.48	776.41	20.00	20.00	20.00	20.00	J-2384	(N/A)	17.20	J-1198
8500	J-4203	Forest	TRUE	1.00	778.24	1.48	778.71	20.00	21.22	20.00	20.09	J-2091	(N/A)	17.21	J-1198
3845	J-2091	Forest	TRUE	1.00	778.79	2.08	779.87	20.00	20.00	20.00	21.13	J-4203	(N/A)	17.21	J-1198
5116	J-2708	Forest	TRUE	1.00	779.76	1.48	780.23	20.00	20.00	20.00	20.05	J-2166	(N/A)	17.20	J-1198
4007	J-2166	Forest	TRUE	1.00	780.10	1.28	780.38	20.00	20.00	20.00	20.08	J-2708	(N/A)	17.20	J-1198
4008	J-2167	Forest	TRUE	1.00	780.10	1.88	780.98	20.00	24.03	20.00	20.00	J-2166	(N/A)	17.20	J-1198
2692	J-1451	Forest	TRUE	1.00	783.50	1.88	784.38	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
5865	J-3138	Forest	TRUE	1.00	783.88	1.68	784.56	20.00	20.01	20.00	20.28	J-1875	(N/A)	17.21	J-1198
3444	J-1875	Forest	TRUE	1.00	785.45	2.28	786.73	20.00	20.16	20.00	20.05	J-3138	(N/A)	17.21	J-1198
2642	J-1422	Forest	TRUE	1.00	788.57	1.88	789.45	20.00	20.01	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1626	J-814	Forest	TRUE	1.00	789.39	1.68	790.07	20.00	20.04	20.00	24.24	J-1197	(N/A)	17.17	J-1198
6367	J-3432	Forest	TRUE	1.00	789.49	1.08	789.57	20.00	20.02	20.00	20.26	J-2147	(N/A)	17.21	J-1198
2612	J-1405	Forest	TRUE	1.00	789.86	1.68	790.54	20.00	20.00	20.00	20.92	J-3095	(N/A)	17.21	J-1198
7180	J-3900	Forest	TRUE	1.00	790.54	1.08	790.61	20.00	20.26	20.00	20.09	J-3432	(N/A)	17.21	J-1198
6368	J-3433	Forest	TRUE	1.00	790.57	1.28	790.84	20.00	20.31	20.00	20.09	J-3432	(N/A)	17.21	J-1198
3964	J-2147	Forest	TRUE	1.00	791.47	1.88	792.35	20.00	20.01	20.00	20.50	J-2259	(N/A)	17.21	J-1198
2586	J-1389	Forest	TRUE	1.00	792.54	2.28	793.82	20.00	20.00	20.00	21.15	J-1985	(N/A)	17.21	J-1198
2672	J-1439	Forest	TRUE	1.00	792.54	1.88	793.43	20.00	24.55	20.00	20.00	J-1389	(N/A)	17.21	J-1198
4563	J-2394	Forest	TRUE	1.00	792.54	1.88	793.43	20.00	24.10	20.00	20.00	J-1389	(N/A)	17.21	J-1198
2119	J-1121	Forest	TRUE	1.00	793.39	1.88	794.27	20.00	21.55	20.00	20.06	J-1122	(N/A)	17.21	J-1198
2510	J-1346	Forest	TRUE	1.00	794.98	2.28	796.26	20.00	20.46	20.00	20.07	J-2259	(N/A)	17.21	J-1198
5789	J-3095	Forest	TRUE	1.00	795.31	1.48	795.79	20.00	20.00	20.00	20.26	J-2104	(N/A)	17.21	J-1198
4230	J-2259	Forest	TRUE	1.00	795.37	2.68	797.05	20.00	20.00	20.00	20.74	J-3425	(N/A)	17.21	J-1198
2151	J-1142	Forest	TRUE	1.00	795.48	1.28	795.76	20.00	20.00	20.00	20.91	J-925	(N/A)	17.20	J-1198
2661	J-1433	Forest	TRUE	1.00	795.50	1.88	796.38	20.00	20.09	20.00	24.28	J-1197	(N/A)	17.20	J-1198
6548	J-3537	Forest	TRUE	1.00	795.51	2.08	796.59	20.00	24.96	20.00	20.00	J-2259	(N/A)	17.21	J-1198
6547	J-3536	Forest	TRUE	1.00	795.51	1.48	795.99	20.00	24.35	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3502	J-1909	Forest	TRUE	1.00	795.76	1.08	795.84	20.00	24.34	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3501	J-1908	Forest	TRUE	1.00	795.76	1.88	796.64	20.00	23.77	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3873	J-2104	Forest	TRUE	1.00	795.82	1.68	796.50	20.00	20.18	20.00	20.10	J-3095	(N/A)	17.21	J-1198
4116	J-2214	Forest	TRUE	1.00	796.02	2.08	797.10	20.00	35.15	20.00	20.00	J-2259	(N/A)	17.21	J-1198
6155	J-3305	Forest	TRUE	1.00	796.02	1.68	796.70	20.00	34.36	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3576	J-1950	Forest	TRUE	1.00	796.82	2.68	798.50	20.00	24.87	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3524	J-1921	Forest	TRUE	1.00	797.31	1.48	797.78	20.00	25.96	20.00	20.00	J-2295	(N/A)	17.20	J-1198
6355	J-3425	Forest	TRUE	1.00	797.53	1.28	797.81	20.00	20.02	20.00	20.43	J-2259	(N/A)	17.21	J-1198
3577	J-1951	Forest	TRUE	1.00	797.96	1.48	798.43	20.00	21.69	20.00	20.00	J-2259	(N/A)	17.21	J-1198
6396	J-3449	Forest	TRUE	1.00	797.96	2.08	799.04	20.00	21.15	20.00	20.00	J-2259	(N/A)	17.21	J-1198
6218	J-3343	Forest	TRUE	1.00	798.15	1.48	798.63	20.00	20.48	20.00	20.12	J-1985	(N/A)	17.21	J-1198
6356	J-3426	Forest	TRUE	1.00	798.79	1.68	799.47	20.00	20.30	20.00	20.08	J-3425	(N/A)	17.21	J-1198
3641	J-1985	Forest	TRUE	1.00	798.80	1.48	799.28	20.00	20.00	20.00	20.16	J-1496	(N/A)	17.21	J-1198
4823	J-2539	Forest	TRUE	1.00	799.63	1.28	799.91	20.00	24.62	20.00	20.00	J-2295	(N/A)	17.20	J-1198
3525	J-1922	Forest	TRUE	1.00	799.63	1.68	800.31	20.00	24.84	20.00	20.00	J-2295	(N/A)	17.20	J-1198
3888	J-2112	Forest	TRUE	1.00	799.67	1.88	800.55	20.00	20.00	20.00	22.45	J-1740	(N/A)	17.21	J-1198
2767	J-1496	Forest	TRUE	1.00	799.75	2.08	800.83	20.00	20.00	20.00	22.39	J-2837	(N/A)	17.21	J-1198
2824	J-1530	Forest	TRUE	1.00	799.86	2.68	801.54	20.00	20.00	20.00	20.08	J-3138	(N/A)	17.20	J-1198
4443	J-2326	Stewartsville	TRUE	1.00	800.93	1.69	801.62	20.00	20.00	20.00	50.50	J-676	(N/A)	17.23	J-1198
3238	J-1758	Forest	TRUE	1.00	801.84	1.28	802.12	20.00	21.75	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3774	J-2057	Forest	TRUE	1.00	801.84	2.68	803.53	20.00	21.20	20.00	20.00	J-2259	(N/A)	17.21	J-1198
6415	J-3460	Forest	TRUE	1.00	801.84	1.08	801.92	20.00	21.29	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3237	J-1757	Forest	TRUE	1.00	801.84	1.08	801.92	20.00	21.72	20.00	20.00	J-2259	(N/A)	17.21	J-1198
4085	J-2202	Forest	TRUE	1.00	803.16	2.08	804.24	20.00	23.27	20.00	20.00	J-3425	(N/A)	17.21	J-1198
2109	J-1115	Forest	TRUE	1.00	803.41	2.48	804.89	20.00	20.04	20.00	24.24	J-1197	(N/A)	17.16	J-1198
3305	J-1798	Forest	TRUE	1.00	805.10	1.08	805.17	20.00	38.97	20.00	20.00	J-2259	(N/A)	17.21	J-1198
2148	J-1140	Forest	TRUE	1.00	805.10	1.08	805.18	20.00	37.92	20.00	20.00	J-2259	(N/A)	17.21	J-1198
2712	J-1464	Forest	TRUE	1.00	805.42	1.68	806.10	20.00	20.03	20.00	24.30	J-1197	(N/A)	17.22	J-1198
3403	J-1851	Forest	TRUE	1.00	805.50	1.08	805.58	20.00	40.96	20.00	20.00	J-2259	(N/A)	17.21	J-1198
5895	J-3154	Forest	TRUE	1.00	805.50	1.48	805.98	20.00	40.70	20.00	20.00	J-2259	(N/A)	17.21	J-1198
4420	J-2319	Forest	TRUE	1.00	808.31	1.48	808.79	20.00	41.63	20.00	20.00	J-1211	(N/A)	17.21	J-1198
6194	J-3328	Forest	TRUE	1.00	808.31	2.08	809.39	20.00	41.99	20.00	20.00	J-1211	(N/A)	17.21	J-1198
4064	J-2191	Forest	TRUE	1.00	811.28	2.28	812.56	20.00	30.46	20.00	20.00	J-2110	(N/A)	17.21	J-1198
3871	J-2103	Forest	TRUE	1.00	811.31	1.48	811.79	20.00	52.26	20.00	20.01	J-2259	(N/A)	17.21	J-1198
6394	J-3448	Forest	TRUE	1.00	811.39	1.08	811.47	20.00	34.95	20.00	20.00	J-2259	(N/A)	17.21	J-1198
3793	J-2066	Forest	TRUE	1.00	811.39	1.88	812.27	20.00	35.61	20.00	20.00	J-2259	(N/A)	17.21	J-1198
2906	J-1574	Forest	TRUE	1.00	812.48	2.08	813.56	20.00	20.02	20.00	24.25	J-1197	(N/A)	17.17	J-1198
465	J-260	Forest	TRUE	1.00	812.96	1.68	813.64	20.00	30.61	20.00	20.00	J-3425	(N/A)	17.21	J-1198
337	J-178	Forest	TRUE	1.00	813.19	1.08	813.26	20.00	32.83	20.00	20.00	J-3425	(N/A)	17.21	J-1198
338	J-179	Forest	TRUE	1.00	813.19	1.08	813.26	20.00	32.81	20.00	20.00	J-3425	(N/A)	17.21	J-1198
3870	J-2102	Forest	TRUE	1.00	813.99	1.88	814.87	20.00	39.50	20.00	20.00	J-2259	(N/A)	17.21	J-1198
6345	J-3419	Forest	TRUE	1.00	813.99	1.48	814.47	20.00	39.25	20.00	20.00	J-2259	(N/A)	17.21	J-1198
5818	J-3112	Forest	TRUE	1.00	814.95	1.28	815.23	20.00	34.16	20.00	20.00	J-3425	(N/A)	17.21	J-1198
868	J-488	Forest	TRUE	1.00	814.95	1.68	815.63	20.00	33.33	20.00	20.00	J-3425	(N/A)	17.21	J-1198
3011	J-1621	Lakes	TRUE	1.00	815.62	2.06	816.68	20.00	25.72	20.00	20.00	J-1427	(N/A)	17.23	J-1198
3210	J-1741	Forest	TRUE	1.00	815.76	1.08	815.84	20.00	20.00	20.00	20.07	J-1740	(N/A)	17.21	J-1198
3209	J-1740	Forest	TRUE	1.00	816.20	1.28	816.48	20.00	20.00	20.00	20.20	J-1741	(N/A)	17.21	J-1198
4071	J-2195	Forest	TRUE	1.00	816.77	1.28	817.05	20.00	33.75	20.00	20.00	J-2295	(N/A)	17.20	J-1198
5347	J-2841	Forest	TRUE	1.00	816.77	1.28	817.05	20.00	33.49	20.00	20.00	J-2295	(N/A)	17.20	J-1198
6097	J-3271	Forest	TRUE	1.00	817.04	1.28	817.32	20.00	20.59	20.00	20.11	J-2091	(N/A)	17.21	J-1198
3846	J-2092	Forest	TRUE	1.00	817.22	2.08	818.30	20.00	21.52	20.00	20				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5101	J-2700	Forest	TRUE	1.00	829.42	1.08	829.49	20.00	33.05	20.00	20.00	J-610	(N/A)	17.20	J-1198
520	J-294	Forest	TRUE	1.00	829.42	1.48	829.90	20.00	33.19	20.00	20.00	J-610	(N/A)	17.20	J-1198
521	J-295	Forest	TRUE	1.00	829.42	1.48	829.90	20.00	33.14	20.00	20.00	J-610	(N/A)	17.20	J-1198
1159	J-610	Forest	TRUE	1.00	829.42	1.48	829.90	20.00	20.00	20.00	20.20	J-3676	(N/A)	17.20	J-1198
1608	J-802	Forest	TRUE	1.00	830.75	1.68	831.43	20.00	20.05	20.00	24.24	J-1197	(N/A)	17.16	J-1198
6859	J-3721	Forest	TRUE	1.00	831.18	1.08	831.26	20.00	20.00	20.00	21.14	J-2302	(N/A)	17.21	J-1198
4794	J-2524	Forest	TRUE	1.00	831.34	1.48	831.82	20.00	20.02	20.00	20.08	J-2145	(N/A)	17.22	J-1198
3959	J-2145	Forest	TRUE	1.00	832.32	1.68	833.00	20.00	20.04	20.00	20.10	J-2524	(N/A)	17.22	J-1198
4370	J-2302	Forest	TRUE	1.00	833.34	1.08	833.41	20.00	20.87	20.00	20.06	J-3721	(N/A)	17.21	J-1198
817	J-462	Forest	TRUE	1.00	834.26	1.08	834.33	20.00	33.76	20.00	20.00	J-3425	(N/A)	17.21	J-1198
3767	J-2053	Forest	TRUE	1.00	834.26	1.48	834.74	20.00	34.83	20.00	20.00	J-3425	(N/A)	17.21	J-1198
6295	J-3389	Forest	TRUE	1.00	834.26	1.88	835.14	20.00	34.74	20.00	20.00	J-3425	(N/A)	17.21	J-1198
2204	J-1175	Forest	TRUE	1.00	834.28	1.88	835.16	20.00	25.32	20.00	20.00	J-3425	(N/A)	17.21	J-1198
3520	J-1919	Forest	TRUE	1.00	834.28	1.08	834.35	20.00	24.52	20.00	20.00	J-3425	(N/A)	17.21	J-1198
6017	J-3222	Forest	TRUE	1.00	834.28	1.08	834.35	20.00	24.54	20.00	20.00	J-3425	(N/A)	17.21	J-1198
3664	J-1997	Forest	TRUE	1.00	834.28	2.08	835.36	20.00	23.48	20.00	20.00	J-3425	(N/A)	17.21	J-1198
818	J-463	Forest	TRUE	1.00	836.48	1.48	836.96	20.00	41.27	20.00	20.01	J-3425	(N/A)	17.21	J-1198
6448	J-3479	Forest	TRUE	1.00	836.48	2.28	837.76	20.00	41.16	20.00	20.01	J-3425	(N/A)	17.21	J-1198
2639	J-1420	Forest	TRUE	1.00	838.92	1.88	839.80	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
4536	J-2378	Forest	TRUE	1.00	840.36	1.28	840.63	20.00	20.01	20.00	20.05	J-1637	(N/A)	17.20	J-1198
3041	J-1636	Forest	TRUE	1.00	840.78	1.08	840.85	20.00	20.01	20.00	20.02	J-1637	(N/A)	17.20	J-1198
4407	J-2315	Forest	TRUE	1.00	840.86	1.68	841.54	20.00	36.27	20.00	20.00	J-1764	(N/A)	17.21	J-1198
6660	J-3604	Forest	TRUE	1.00	840.86	1.28	841.14	20.00	35.14	20.00	20.00	J-1764	(N/A)	17.21	J-1198
3042	J-1637	Forest	TRUE	1.00	840.93	1.08	841.01	20.00	20.01	20.00	20.06	J-2378	(N/A)	17.20	J-1198
3359	J-1828	Forest	TRUE	1.00	841.34	1.48	841.82	20.00	23.04	20.00	20.00	J-2295	(N/A)	17.20	J-1198
6767	J-3667	Forest	TRUE	1.00	841.34	1.48	841.82	20.00	22.06	20.00	20.00	J-2295	(N/A)	17.20	J-1198
3360	J-1829	Forest	TRUE	1.00	843.57	1.68	844.25	20.00	23.57	20.00	20.00	J-2295	(N/A)	17.20	J-1198
1173	J-616	Forest	TRUE	1.00	845.14	1.08	845.22	20.00	51.61	20.00	20.01	J-3425	(N/A)	17.21	J-1198
6991	J-3798	Forest	TRUE	1.00	845.15	2.68	846.83	20.00	51.76	20.00	20.01	J-3425	(N/A)	17.21	J-1198
2776	J-1501	Forest	TRUE	1.00	846.18	2.08	847.26	20.00	20.47	20.00	20.03	J-1532	(N/A)	17.20	J-1198
2790	J-1510	Forest	TRUE	1.00	848.53	2.08	849.61	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.21	J-1198
4365	J-2301	Forest	TRUE	1.00	848.76	1.48	849.24	20.00	20.93	20.00	20.07	J-3188	(N/A)	17.21	J-1198
6711	J-3634	Forest	TRUE	1.00	848.82	1.08	848.89	20.00	21.07	20.00	20.06	J-3188	(N/A)	17.21	J-1198
426	J-236	Forest	TRUE	1.00	851.33	1.08	851.41	20.00	51.62	20.00	20.01	J-3425	(N/A)	17.21	J-1198
4902	J-2585	Forest	TRUE	1.00	851.34	1.48	851.81	20.00	51.50	20.00	20.01	J-3425	(N/A)	17.21	J-1198
582	J-333	Forest	TRUE	1.00	851.56	1.48	852.04	20.00	52.27	20.00	20.01	J-3425	(N/A)	17.21	J-1198
427	J-237	Forest	TRUE	1.00	851.56	1.48	852.04	20.00	51.82	20.00	20.01	J-3425	(N/A)	17.21	J-1198
2609	J-1403	Forest	TRUE	1.00	852.95	2.68	854.63	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
6258	J-3368	Forest	TRUE	1.00	855.35	1.08	855.42	20.00	31.76	20.00	20.08	J-1525	(N/A)	17.22	J-1198
3822	J-2079	Forest	TRUE	1.00	855.35	3.09	857.43	20.00	31.99	20.00	20.08	J-1525	(N/A)	17.22	J-1198
2730	J-1474	Forest	TRUE	1.00	855.39	1.88	856.27	20.00	20.06	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1946	J-1019	Forest	TRUE	1.00	857.11	2.08	858.19	20.00	21.89	20.00	20.00	J-1736	(N/A)	17.20	J-1198
1600	J-797	Forest	TRUE	1.00	858.05	1.68	858.73	20.00	20.06	20.00	24.24	J-1197	(N/A)	17.16	J-1198
2725	J-1471	Forest	TRUE	1.00	858.06	1.88	858.94	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2788	J-1509	Forest	TRUE	1.00	859.55	2.28	860.83	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2742	J-1481	Forest	TRUE	1.00	861.53	2.48	863.02	20.00	20.03	20.00	24.23	J-1197	(N/A)	17.15	J-1198
5707	J-3048	Forest	TRUE	1.00	862.86	1.48	863.34	20.00	20.00	20.00	20.13	J-804	(N/A)	17.09	J-1198
1611	J-804	Forest	TRUE	1.00	863.49	1.08	863.57	20.00	20.00	20.00	20.08	J-3048	(N/A)	17.09	J-1198
3824	J-2080	Forest	TRUE	1.00	867.65	2.28	868.93	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
1605	J-800	Forest	TRUE	1.00	869.03	1.68	869.71	20.00	20.05	20.00	24.24	J-1197	(N/A)	17.16	J-1198
3710	J-2024	Forest	TRUE	1.00	869.91	1.28	870.19	20.00	20.13	20.00	20.04	J-2958	(N/A)	17.20	J-1198
3003	J-1617	Forest	TRUE	1.00	872.58	1.88	873.46	20.00	25.20	20.00	20.00	J-2267	(N/A)	17.13	J-1198
2858	J-1549	Forest	TRUE	1.00	873.25	1.08	873.33	20.00	20.00	20.00	20.10	J-1732	(N/A)	17.20	J-1198
6585	J-3560	Forest	TRUE	1.00	873.36	1.28	873.64	20.00	20.00	20.00	20.08	J-1732	(N/A)	17.20	J-1198
3196	J-1732	Forest	TRUE	1.00	873.95	1.28	874.23	20.00	20.00	20.00	20.20	J-1549	(N/A)	17.20	J-1198
3939	J-2136	Forest	TRUE	1.00	874.90	2.08	875.98	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2926	J-1583	Forest	TRUE	1.00	881.85	1.88	882.73	20.00	20.00	20.00	24.20	J-1197	(N/A)	17.12	J-1198
5018	J-2652	Forest	TRUE	1.00	882.33	1.08	882.40	20.00	59.19	20.00	20.01	J-3425	(N/A)	17.21	J-1198
5019	J-2653	Forest	TRUE	1.00	882.33	2.08	883.41	20.00	59.55	20.00	20.01	J-3425	(N/A)	17.21	J-1198
3833	J-2085	Forest	TRUE	1.00	882.55	1.48	883.03	20.00	28.84	20.00	20.00	J-941	(N/A)	17.20	J-1198
6524	J-3523	Forest	TRUE	1.00	882.57	2.28	883.85	20.00	28.48	20.00	20.00	J-941	(N/A)	17.20	J-1198
3834	J-2086	Forest	TRUE	1.00	882.60	1.28	882.88	20.00	30.34	20.00	20.00	J-941	(N/A)	17.20	J-1198
1594	J-793	Forest	TRUE	1.00	885.16	1.88	886.04	20.00	20.06	20.00	24.24	J-1197	(N/A)	17.16	J-1198
5663	J-3023	Forest	TRUE	1.00	885.34	2.08	886.42	20.00	20.00	20.00	21.00	J-2067	(N/A)	17.21	J-1198
7062	J-3838	Forest	TRUE	1.00	886.49	1.08	886.57	20.00	20.00	20.00	20.98	J-2060	(N/A)	17.21	J-1198
3795	J-2067	Forest	TRUE	1.00	886.71	1.88	887.59	20.00	20.85	20.00	20.06	J-3023	(N/A)	17.21	J-1198
1718	J-872	Forest	TRUE	1.00	887.23	1.88	888.11	20.00	21.19	20.00	20.00	J-3023	(N/A)	17.21	J-1198
3418	J-1860	Forest	TRUE	1.00	888.90	1.48	889.38	20.00	25.54	20.00	20.00	J-2267	(N/A)	17.12	J-1198
6671	J-3611	Forest	TRUE	1.00	888.90	1.48	889.38	20.00	25.48	20.00	20.00	J-2267	(N/A)	17.12	J-1198
1925	J-1005	Forest	TRUE	1.00	889.95	1.68	890.63	20.00	20.00	20.00	20.66	J-2060	(N/A)	17.21	J-1198
4380	J-2306	Forest	TRUE	1.00	891.57	2.48	893.05	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3782	J-2060	Forest	TRUE	1.00	897.02	1.28	897.30	20.00	20.00	20.00	20.03	J-3838	(N/A)	17.21	J-1198
2880	J-1560	Forest	TRUE	1.00	897.38	2.48	898.86	20.00	20.00	20.00	24.16	J-1197	(N/A)	17.08	J-1198
3797	J-2068	Forest	TRUE	1.00	899.85	1.28	900.13	20.00	27.82	20.00	20.04	J-2145	(N/A)	17.22	J-1198
2904	J-1573	Forest	TRUE	1.00	899.90	2.48	901.38	20.00	20.01	20.00	24.24	J-1197	(N/A)	17.16	J-1198
5132	J-2717	Forest	TRUE	1.00	900.73	1.48	901.21	20.00	27.42	20.00	20.00	J-2145	(N/A)	17.22	J-1198
2574	J-1382	Forest	TRUE	1.00	903.24	2.68	904.92	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
7666	J-4082	Forest	TRUE	1.00	904.26	1.48	904.74	20.00	66.74	20.00	20.02	J-3425	(N/A)	17.21	J-1198
7667	J-4083	Forest	TRUE	1.00	904.27	1.68	904.95	20.00	64.83	20.00	20.02	J-3425	(N/A)	17.21	J-1198
2840	J-1539	Forest	TRUE	1.00	904.63	1.88	905.51	20.00	20.03	20.00	24.23	J-1197	(N/A		

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4711	J-2477	Forest	TRUE	1.00	930.98	1.88	931.86	20.00	25.53	20.00	20.03	J-1532	(N/A)	17.19	J-1198
3705	J-2021	Forest	TRUE	1.00	930.98	2.08	932.06	20.00	25.74	20.00	20.03	J-1532	(N/A)	17.19	J-1198
2853	J-1429	Forest	TRUE	1.00	931.34	1.88	932.22	20.00	20.05	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2804	J-1518	Forest	TRUE	1.00	931.71	1.08	931.79	20.00	37.23	20.00	20.00	J-1519	(N/A)	17.22	J-1198
5130	J-2716	Forest	TRUE	1.00	931.71	1.28	931.99	20.00	36.69	20.00	20.00	J-1519	(N/A)	17.22	J-1198
2678	J-1443	Forest	TRUE	1.00	932.06	2.28	933.34	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2700	J-1456	Forest	TRUE	1.00	934.27	1.48	934.74	20.00	30.52	20.00	20.04	J-1525	(N/A)	17.22	J-1198
2871	J-1556	Forest	TRUE	1.00	935.61	2.28	936.89	20.00	20.00	20.00	24.15	J-1197	(N/A)	17.07	J-1198
3798	J-2069	Forest	TRUE	1.00	936.77	2.08	937.85	20.00	31.76	20.00	20.02	J-2145	(N/A)	17.22	J-1198
1917	J-1000	Forest	TRUE	1.00	937.31	1.88	938.19	20.00	23.13	20.00	20.00	J-2878	(N/A)	17.20	J-1198
3023	J-1625	Forest	TRUE	1.00	943.12	4.89	947.02	20.00	21.49	20.00	20.00	J-1626	(N/A)	17.20	J-1198
2862	J-1551	Forest	TRUE	1.00	943.17	2.28	944.45	20.00	20.04	20.00	24.23	J-1197	(N/A)	17.16	J-1198
2160	J-1147	Forest	TRUE	1.00	943.78	1.88	944.66	20.00	22.92	20.00	20.00	J-1148	(N/A)	17.20	J-1198
5931	J-3174	Forest	TRUE	1.00	944.74	1.28	945.01	20.00	20.00	20.00	20.35	J-2041	(N/A)	17.20	J-1198
2758	J-1491	Forest	TRUE	1.00	947.06	2.28	948.35	20.00	20.00	20.00	24.15	J-1197	(N/A)	17.07	J-1198
2684	J-1446	Forest	TRUE	1.00	947.33	1.48	947.81	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
3740	J-2041	Forest	TRUE	1.00	950.00	1.88	950.88	20.00	20.10	20.00	20.02	J-3174	(N/A)	17.20	J-1198
2641	J-1421	Forest	TRUE	1.00	951.75	1.08	951.83	20.00	37.69	20.00	20.00	J-1519	(N/A)	17.22	J-1198
5785	J-3093	Forest	TRUE	1.00	952.42	1.68	953.09	20.00	20.08	20.00	20.05	J-2296	(N/A)	17.20	J-1198
4354	J-2296	Forest	TRUE	1.00	952.86	2.08	953.94	20.00	20.00	20.00	20.28	J-3093	(N/A)	17.20	J-1198
3922	J-2128	Forest	TRUE	1.00	955.18	1.88	956.06	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
5745	J-3070	Forest	TRUE	1.00	955.67	1.08	955.75	20.00	21.01	20.00	20.00	J-1626	(N/A)	17.20	J-1198
5746	J-3071	Forest	TRUE	1.00	955.67	1.08	955.75	20.00	20.88	20.00	20.00	J-1626	(N/A)	17.20	J-1198
4294	J-2279	Stewartsville	TRUE	1.00	958.71	1.55	959.26	20.00	59.21	20.00	20.00	J-2326	(N/A)	17.23	J-1198
5392	J-2868	Stewartsville	TRUE	1.00	958.71	1.83	959.55	20.00	59.00	20.00	20.00	J-2326	(N/A)	17.23	J-1198
6377	J-3438	Forest	TRUE	1.00	959.71	1.28	959.98	20.00	20.02	20.00	20.48	J-282	(N/A)	17.20	J-1198
502	J-282	Forest	TRUE	1.00	963.22	1.08	963.30	20.00	20.19	20.00	20.03	J-3438	(N/A)	17.20	J-1198
584	J-334	Forest	TRUE	1.00	963.28	1.08	963.36	20.00	20.25	20.00	20.02	J-3438	(N/A)	17.20	J-1198
503	J-283	Forest	TRUE	1.00	963.57	2.08	964.65	20.00	20.77	20.00	20.00	J-3438	(N/A)	17.20	J-1198
2329	J-1249	Forest	TRUE	1.00	964.83	1.28	965.11	20.00	20.00	20.00	23.30	J-1248	(N/A)	17.16	J-1198
3599	J-1964	Forest	TRUE	1.00	966.24	1.88	967.12	20.00	20.00	20.00	22.34	J-1355	(N/A)	17.21	J-1198
1590	J-790	Forest	TRUE	1.00	966.37	1.28	966.65	20.00	20.00	20.00	24.15	J-1197	(N/A)	17.07	J-1198
1812	J-932	Forest	TRUE	1.00	967.20	1.88	968.08	20.00	20.00	20.00	21.50	J-933	(N/A)	17.21	J-1198
288	J-148	Forest	TRUE	1.00	968.31	1.68	968.99	20.00	22.10	20.00	20.00	J-3438	(N/A)	17.20	J-1198
5390	J-2867	Forest	TRUE	1.00	968.40	1.28	968.68	20.00	22.35	20.00	20.00	J-3438	(N/A)	17.20	J-1198
287	J-147	Forest	TRUE	1.00	968.40	1.08	968.48	20.00	22.30	20.00	20.00	J-3438	(N/A)	17.20	J-1198
330	J-174	Forest	TRUE	1.00	968.54	1.68	969.22	20.00	22.62	20.00	20.00	J-3438	(N/A)	17.20	J-1198
4343	J-2294	Forest	TRUE	1.00	969.69	2.08	970.77	20.00	29.49	20.00	20.00	J-1211	(N/A)	17.20	J-1198
4621	J-2428	Forest	TRUE	1.00	969.69	1.48	970.17	20.00	29.46	20.00	20.00	J-1211	(N/A)	17.20	J-1198
2630	J-1415	Forest	TRUE	1.00	969.72	2.28	971.01	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
3330	J-1812	Forest	TRUE	1.00	971.31	1.08	971.39	20.00	30.06	20.00	20.00	J-610	(N/A)	17.19	J-1198
1807	J-929	Forest	TRUE	1.00	975.47	1.88	976.35	20.00	20.00	20.00	20.00	J-930	(N/A)	17.21	J-1198
1165	J-612	Forest	TRUE	1.00	978.42	1.08	978.50	20.00	25.19	20.00	20.00	J-3438	(N/A)	17.20	J-1198
6137	J-3295	Forest	TRUE	1.00	978.42	1.88	979.30	20.00	24.91	20.00	20.00	J-3438	(N/A)	17.20	J-1198
3329	J-1811	Forest	TRUE	1.00	978.94	1.28	979.22	20.00	30.52	20.00	20.00	J-610	(N/A)	17.19	J-1198
6006	J-3216	Forest	TRUE	1.00	978.94	1.28	979.22	20.00	30.24	20.00	20.00	J-610	(N/A)	17.19	J-1198
1843	J-952	Forest	TRUE	1.00	979.83	1.08	979.90	20.00	20.00	20.00	21.62	J-953	(N/A)	17.06	J-1198
2588	J-1390	Forest	TRUE	1.00	980.58	2.08	981.66	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3915	J-2125	Forest	TRUE	1.00	981.21	2.68	982.89	20.00	21.51	20.00	20.03	J-3172	(N/A)	17.21	J-1198
6317	J-3402	Forest	TRUE	1.00	981.41	1.88	982.29	20.00	20.09	20.00	20.34	J-1134	(N/A)	17.19	J-1198
2838	J-1538	Forest	TRUE	1.00	981.70	2.48	983.19	20.00	20.05	20.00	24.23	J-1197	(N/A)	17.15	J-1198
2525	J-1355	Forest	TRUE	1.00	982.37	1.08	982.45	20.00	20.00	20.00	20.83	J-1964	(N/A)	17.21	J-1198
2138	J-1134	Forest	TRUE	1.00	984.07	1.48	984.55	20.00	20.05	20.00	20.11	J-3402	(N/A)	17.19	J-1198
6029	J-3229	Forest	TRUE	1.00	984.74	1.28	985.02	20.00	20.00	20.00	21.05	J-2273	(N/A)	17.20	J-1198
2632	J-1416	Forest	TRUE	1.00	986.79	1.88	987.67	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
4276	J-2273	Forest	TRUE	1.00	988.30	2.68	989.99	20.00	20.76	20.00	20.00	J-3229	(N/A)	17.20	J-1198
4447	J-2327	Lakes	TRUE	1.00	990.83	1.63	991.46	20.00	20.00	20.00	20.29	J-3412	(N/A)	17.23	J-1198
6176	J-3318	Forest	TRUE	1.00	991.17	1.48	991.65	20.00	20.00	20.00	21.81	J-3317	(N/A)	17.21	J-1198
247	J-121	Forest	TRUE	1.00	991.99	1.08	992.07	20.00	48.37	20.00	20.01	J-3438	(N/A)	17.20	J-1198
4646	J-2442	Forest	TRUE	1.00	991.99	1.08	992.07	20.00	48.32	20.00	20.01	J-3438	(N/A)	17.20	J-1198
246	J-120	Forest	TRUE	1.00	992.06	1.48	992.54	20.00	48.47	20.00	20.01	J-3438	(N/A)	17.20	J-1198
6175	J-3317	Forest	TRUE	1.00	992.95	2.08	994.03	20.00	21.55	20.00	20.02	J-3318	(N/A)	17.21	J-1198
3825	J-2081	Forest	TRUE	1.00	993.64	2.08	994.72	20.00	22.62	20.00	20.00	J-2080	(N/A)	17.20	J-1198
5636	J-3006	Forest	TRUE	1.00	993.64	2.08	994.72	20.00	22.31	20.00	20.00	J-2080	(N/A)	17.20	J-1198
6334	J-3412	Lakes	TRUE	1.00	994.52	1.20	994.72	20.00	20.17	20.00	20.01	J-2327	(N/A)	17.23	J-1198
4384	J-2308	Forest	TRUE	1.00	994.64	1.08	994.72	20.00	22.20	20.00	20.00	J-3318	(N/A)	17.21	J-1198
6335	J-3413	Lakes	TRUE	1.00	994.75	1.20	994.95	20.00	20.52	20.00	20.00	J-2327	(N/A)	17.23	J-1198
5977	J-3200	Forest	TRUE	1.00	997.38	1.48	997.86	20.00	20.02	20.00	20.52	J-3199	(N/A)	17.20	J-1198
2665	J-1435	Forest	TRUE	1.00	999.69	2.08	1000.77	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.16	J-1198
2697	J-1454	Forest	TRUE	1.00	1000.35	1.88	1001.23	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.15	J-1198
5976	J-3199	Forest	TRUE	1.00	1001.35	1.88	1002.23	20.00	20.23	20.00	20.02	J-3200	(N/A)	17.20	J-1198
7882	J-4138	Forest	TRUE	1.00	1001.63	1.68	1002.31	20.00	22.20	20.00	20.00	J-3200	(N/A)	17.20	J-1198
3677	J-2005	Forest	TRUE	1.00	1002.02	2.08	1003.10	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.20	J-1198
5878	J-3145	Forest	TRUE	1.00	1002.10	1.28	1002.38	20.00	30.79	20.00	20.00	J-1626	(N/A)	17.20	J-1198
5879	J-3146	Forest	TRUE	1.00	1002.11	1.08	1002.18	20.00	30.42	20.00	20.00	J-1626	(N/A)	17.20	J-1198
3802	J-2070	Forest	TRUE	1.00	1002.14	2.08	1003.22	20.00	20.00	20.00	24.14	J-1197	(N/A)	17.06	J-1198
1188	J-622	Forest	TRUE	1.00	1003.38	1.88	1004.26	20.00	62.07	20.00	20.03	J-3438	(N/A)	17.20	J-1198
5502	J-2929	Forest	TRUE	1.00	1003.38	1.28	1003.66	20.00	61.62	20.00	20.03	J-3438	(N/A)	17.20	J-1198
4142	J-2226	Forest	TRUE	1.00	1003.43	2.28	1004.71	20.00	24.29	20.00	20.00	J-1530	(N/A)	17.20	J-1198
5831	J-3119	Forest	TRUE	1.00	1003.43	2.08	1004.51	20.00	23.94	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1377	J-692	Forest	TRUE	1.00	1029.24	1.28	1029.52	20.00	61.85	20.00	20.03	J-3438	(N/A)	17.20	J-1198
5274	J-2798	Forest	TRUE	1.00	1029.24	1.28	1029.52	20.00	61.63	20.00	20.03	J-3438	(N/A)	17.20	J-1198
3658	J-1995	Forest	TRUE	1.00	1029.85	1.08	1029.92	20.00	46.72	20.00	20.00	J-2045	(N/A)	16.07	J-1198
6446	J-3478	Forest	TRUE	1.00	1029.85	1.48	1030.33	20.00	45.98	20.00	20.00	J-2045	(N/A)	16.07	J-1198
6884	J-3736	Forest	TRUE	1.00	1031.22	1.48	1031.69	20.00	20.02	20.00	20.07	J-3737	(N/A)	17.05	J-1198
1743	J-888	Forest	TRUE	1.00	1031.36	1.88	1032.24	20.00	26.71	20.00	20.00	J-3736	(N/A)	17.05	J-1198
5610	J-2991	Forest	TRUE	1.00	1031.36	1.88	1032.24	20.00	26.28	20.00	20.00	J-3736	(N/A)	17.05	J-1198
7117	J-3869	Forest	TRUE	1.00	1032.36	1.08	1032.44	20.00	21.78	20.00	20.03	J-3736	(N/A)	17.05	J-1198
7118	J-3870	Forest	TRUE	1.00	1032.37	1.08	1032.45	20.00	21.84	20.00	20.03	J-3736	(N/A)	17.05	J-1198
2779	J-1503	Forest	TRUE	1.00	1034.08	2.28	1035.37	20.00	20.05	20.00	24.22	J-1197	(N/A)	17.14	J-1198
6460	J-3486	Forest	TRUE	1.00	1034.31	1.68	1034.99	20.00	20.00	20.00	20.42	J-1756	(N/A)	17.19	J-1198
3295	J-1793	Forest	TRUE	1.00	1034.46	1.88	1035.35	20.00	20.00	20.00	20.37	J-1030	(N/A)	17.19	J-1198
3234	J-1755	Forest	TRUE	1.00	1037.09	1.08	1037.16	20.00	20.00	20.00	20.13	J-3486	(N/A)	17.19	J-1198
3235	J-1756	Forest	TRUE	1.00	1038.09	3.09	1040.17	20.00	20.08	20.00	20.04	J-3486	(N/A)	17.19	J-1198
1963	J-1030	Forest	TRUE	1.00	1038.15	1.08	1038.23	20.00	20.00	20.00	20.28	J-1693	(N/A)	17.19	J-1198
5143	J-2723	Forest	TRUE	1.00	1040.44	1.08	1040.52	20.00	20.10	20.00	20.05	J-1693	(N/A)	17.19	J-1198
3131	J-1693	Forest	TRUE	1.00	1040.92	1.48	1041.40	20.00	20.00	20.00	20.03	J-1030	(N/A)	17.19	J-1198
6502	J-3510	Forest	TRUE	1.00	1042.47	2.48	1043.95	20.00	20.23	20.00	20.06	J-2091	(N/A)	17.20	J-1198
4413	J-2317	Forest	TRUE	1.00	1042.65	1.88	1043.53	20.00	20.78	20.00	20.03	J-2091	(N/A)	17.20	J-1198
2591	J-1392	Forest	TRUE	1.00	1042.83	1.68	1043.50	20.00	20.01	20.00	24.23	J-1197	(N/A)	17.15	J-1198
658	J-379	Forest	TRUE	1.00	1043.60	3.09	1045.69	20.00	20.04	20.00	24.27	J-1197	(N/A)	17.19	J-1198
3814	J-2076	Forest	TRUE	1.00	1044.83	1.68	1045.51	20.00	28.75	20.00	20.04	J-1148	(N/A)	17.19	J-1198
6812	J-3694	Forest	TRUE	1.00	1045.31	2.68	1047.00	20.00	27.39	20.00	20.00	J-1148	(N/A)	17.19	J-1198
976	J-536	Forest	TRUE	1.00	1051.33	1.68	1052.01	20.00	43.86	20.00	20.01	J-379	(N/A)	17.19	J-1198
6598	J-3567	Forest	TRUE	1.00	1055.30	1.48	1055.78	20.00	20.00	20.00	20.14	J-2004	(N/A)	17.19	J-1198
1331	J-683	Forest	TRUE	1.00	1055.79	1.08	1055.86	20.00	51.73	20.00	20.02	J-3438	(N/A)	17.20	J-1198
5649	J-3014	Forest	TRUE	1.00	1055.79	1.08	1055.87	20.00	51.30	20.00	20.02	J-3438	(N/A)	17.20	J-1198
3676	J-2004	Forest	TRUE	1.00	1056.71	1.88	1057.59	20.00	20.00	20.00	20.29	J-3567	(N/A)	17.19	J-1198
2242	J-1197	Forest	TRUE	1.00	1065.09	1.48	1065.57	20.00	20.00	20.00	20.86	J-3957	(N/A)	12.92	J-1198
4532	J-2376	Forest	TRUE	1.00	1065.58	1.08	1065.66	20.00	20.00	20.00	20.34	J-1498	(N/A)	17.20	J-1198
2771	J-1498	Forest	TRUE	1.00	1066.10	2.28	1067.38	20.00	20.27	20.00	20.06	J-2376	(N/A)	17.20	J-1198
6324	J-3406	Forest	TRUE	1.00	1066.14	1.48	1066.62	20.00	53.62	20.00	20.01	J-3200	(N/A)	17.20	J-1198
6325	J-3407	Forest	TRUE	1.00	1066.15	2.48	1067.64	20.00	52.94	20.00	20.01	J-3200	(N/A)	17.20	J-1198
6519	J-3520	Forest	TRUE	1.00	1066.21	1.68	1066.89	20.00	49.71	20.00	20.01	J-3200	(N/A)	17.20	J-1198
7320	J-3962	Forest	TRUE	1.00	1066.21	1.08	1066.29	20.00	49.54	20.00	20.01	J-3200	(N/A)	17.20	J-1198
6520	J-3521	Forest	TRUE	1.00	1066.22	1.68	1066.90	20.00	49.45	20.00	20.01	J-3200	(N/A)	17.20	J-1198
8151	J-4169	Forest	TRUE	1.00	1066.28	2.08	1067.36	20.00	34.94	20.00	20.01	J-3200	(N/A)	17.20	J-1198
5969	J-3195	Forest	TRUE	1.00	1066.29	3.09	1068.37	20.00	35.01	20.00	20.00	J-3200	(N/A)	17.20	J-1198
5970	J-3196	Forest	TRUE	1.00	1066.29	1.48	1066.77	20.00	34.30	20.00	20.00	J-3200	(N/A)	17.20	J-1198
7497	J-4027	Forest	TRUE	1.00	1066.29	1.88	1067.17	20.00	32.10	20.00	20.00	J-3200	(N/A)	17.20	J-1198
6191	J-3326	Forest	TRUE	1.00	1066.30	1.08	1066.38	20.00	30.82	20.00	20.00	J-3200	(N/A)	17.20	J-1198
6192	J-3327	Forest	TRUE	1.00	1066.31	1.48	1066.79	20.00	30.44	20.00	20.00	J-3200	(N/A)	17.20	J-1198
7463	J-4015	Forest	TRUE	1.00	1066.31	1.88	1067.19	20.00	29.56	20.00	20.00	J-3200	(N/A)	17.20	J-1198
3947	J-2140	Forest	TRUE	1.00	1070.23	1.48	1070.71	20.00	40.78	20.00	20.00	J-1525	(N/A)	17.21	J-1198
6166	J-3312	Forest	TRUE	1.00	1070.23	1.68	1070.91	20.00	41.05	20.00	20.00	J-1525	(N/A)	17.21	J-1198
1882	J-978	Forest	TRUE	1.00	1071.59	1.08	1071.67	20.00	20.00	20.00	24.04	J-977	(N/A)	17.14	J-1198
4379	J-2305	Forest	TRUE	1.00	1073.44	3.09	1075.52	20.00	21.09	20.00	20.03	J-2306	(N/A)	17.21	J-1198
1242	J-649	Forest	TRUE	1.00	1073.51	1.08	1073.58	20.00	48.95	20.00	20.02	J-3438	(N/A)	17.20	J-1198
5979	J-3201	Forest	TRUE	1.00	1073.52	1.08	1073.59	20.00	48.30	20.00	20.02	J-3438	(N/A)	17.20	J-1198
5771	J-3085	Forest	TRUE	1.00	1073.59	1.48	1074.07	20.00	21.63	20.00	20.01	J-2306	(N/A)	17.21	J-1198
3260	J-1772	Stewartsville	TRUE	1.00	1075.08	1.83	1075.91	20.00	69.79	20.00	20.00	J-2326	(N/A)	17.23	J-1198
3259	J-1771	Stewartsville	TRUE	1.00	1075.08	1.26	1075.34	20.00	69.40	20.00	20.00	J-2326	(N/A)	17.23	J-1198
2751	J-1487	Forest	TRUE	1.00	1077.37	1.88	1078.25	20.00	20.00	20.00	20.42	J-1833	(N/A)	17.19	J-1198
3784	J-2061	Forest	TRUE	1.00	1077.79	1.68	1078.47	20.00	20.00	20.00	23.24	J-1197	(N/A)	16.17	J-1198
5114	J-2707	Forest	TRUE	1.00	1080.86	1.88	1081.74	20.00	20.00	20.00	20.20	J-2320	(N/A)	17.19	J-1198
4896	J-2582	Forest	TRUE	1.00	1081.36	1.68	1082.03	20.00	20.47	20.00	20.04	J-1833	(N/A)	17.19	J-1198
3369	J-1833	Forest	TRUE	1.00	1081.72	2.68	1083.41	20.00	20.00	20.00	20.64	J-2582	(N/A)	17.19	J-1198
4422	J-2320	Forest	TRUE	1.00	1082.90	2.08	1083.98	20.00	20.00	20.00	20.04	J-2707	(N/A)	17.19	J-1198
2111	J-1116	Forest	TRUE	1.00	1083.34	2.08	1084.42	20.00	20.02	20.00	24.21	J-1197	(N/A)	17.13	J-1198
4377	J-2304	Forest	TRUE	1.00	1083.53	1.28	1083.81	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
6887	J-3738	Forest	TRUE	1.00	1083.68	1.08	1083.76	20.00	20.01	20.00	20.46	J-3188	(N/A)	17.21	J-1198
3643	J-1986	Forest	TRUE	1.00	1084.00	1.88	1084.88	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
5566	J-2966	Forest	TRUE	1.00	1085.98	1.08	1086.06	20.00	49.66	20.00	20.01	J-1626	(N/A)	17.20	J-1198
5567	J-2967	Forest	TRUE	1.00	1085.98	1.08	1086.06	20.00	49.49	20.00	20.01	J-1626	(N/A)	17.20	J-1198
7305	J-3957	Forest	TRUE	1.00	1086.78	1.48	1087.26	20.00	20.71	20.00	20.00	J-1197	(N/A)	12.92	J-1198
4297	J-2281	Forest	TRUE	1.00	1087.94	1.08	1088.02	20.00	20.48	20.00	20.03	J-3188	(N/A)	17.21	J-1198
1204	J-631	Forest	TRUE	1.00	1089.84	1.08	1089.91	20.00	45.74	20.00	20.01	J-3438	(N/A)	17.20	J-1198
6910	J-3752	Forest	TRUE	1.00	1089.85	1.28	1090.13	20.00	44.84	20.00	20.01	J-3438	(N/A)	17.20	J-1198
2616	J-1407	Forest	TRUE	1.00	1090.08	1.48	1090.56	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
5352	J-2844	Forest	TRUE	1.00	1090.16	1.48	1090.64	20.00	20.00	20.00	20.41	J-1354	(N/A)	17.21	J-1198
5781	J-3091	Forest	TRUE	1.00	1091.03	1.08	1091.11	20.00	20.03	20.00	20.31	J-3090	(N/A)	17.04	J-1198
2551	J-1370	Forest	TRUE	1.00	1091.19	2.08	1092.27	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
2524	J-1354	Forest	TRUE	1.00	1091.82	2.08	1092.90	20.00	20.20	20.00	20.06	J-2844	(N/A)	17.21	J-1198
2135	J-1132	Lakes	TRUE	1.00	1092.56	1.72	1093.27	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1940	J-1015	Forest	TRUE	1.00	1093.13	1.68	1093.80	20.00	20.63	20.00	20.00	J-1736	(N/A)	17.19	J-1198
5780	J-3090	Forest	TRUE	1.00	1094.00	1.08	1094.08	20.00	20.03	20.00	20.07	J-3091	(N/A)	17.04	J-1198
4193	J-2247	Forest	TRUE	1.00	1096.78	2.88	1098.66	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
5078	J-2688	Forest	TRUE	1.00	1096.82	1.28	1097.10	20.00	21.46	20.00	20.04	J-2070	(N/A)	17.04	J-1198
3106	J-1678	Forest	TRUE	1.00	1096.86	1.08	1096.94	20.00	21.90	20.0					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3926	J-2130	Forest	TRUE	1.00	1111.28	1.88	1112.16	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
5421	J-2884	Forest	TRUE	1.00	1111.33	1.08	1111.41	20.00	20.01	20.00	20.13	J-1564	(N/A)	17.03	J-1198
2773	J-1499	Forest	TRUE	1.00	1111.44	1.88	1112.32	20.00	20.00	20.00	24.11	J-1197	(N/A)	17.03	J-1198
7126	J-3874	Forest	TRUE	1.00	1112.85	1.08	1112.92	20.00	20.01	20.00	20.05	J-3875	(N/A)	17.21	J-1198
7127	J-3875	Forest	TRUE	1.00	1112.91	1.48	1113.39	20.00	20.00	20.00	20.00	J-3874	(N/A)	17.21	J-1198
2887	J-1564	Forest	TRUE	1.00	1112.92	1.88	1113.80	20.00	20.00	20.00	20.16	J-2884	(N/A)	17.03	J-1198
4603	J-2418	Forest	TRUE	1.00	1114.73	2.28	1116.02	20.00	20.05	20.00	20.03	J-1350	(N/A)	17.22	J-1198
4062	J-2190	Forest	TRUE	1.00	1114.75	2.28	1116.04	20.00	20.01	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2517	J-1350	Forest	TRUE	1.00	1115.26	1.08	1115.34	20.00	20.00	20.00	20.21	J-2418	(N/A)	17.22	J-1198
2648	J-1426	Forest	TRUE	1.00	1116.09	1.88	1116.97	20.00	20.04	20.00	24.16	J-1197	(N/A)	17.08	J-1198
3662	J-1996	Forest	TRUE	1.00	1118.53	1.28	1118.81	20.00	20.00	20.00	22.76	J-1775	(N/A)	17.19	J-1198
2564	J-1377	Forest	TRUE	1.00	1118.93	1.08	1119.01	20.00	23.80	20.00	20.04	J-1048	(N/A)	17.03	J-1198
4968	J-2624	Forest	TRUE	1.00	1120.18	2.48	1121.66	20.00	28.68	20.00	20.01	J-941	(N/A)	17.19	J-1198
4967	J-2623	Forest	TRUE	1.00	1120.19	1.48	1120.67	20.00	28.44	20.00	20.01	J-941	(N/A)	17.19	J-1198
8375	J-4175	Forest	TRUE	1.00	1120.37	1.08	1120.45	20.00	91.32	20.00	20.03	J-3425	(N/A)	17.21	J-1198
2285	J-1223	Forest	TRUE	1.00	1120.64	2.88	1122.52	20.00	46.36	20.00	20.00	J-3425	(N/A)	17.21	J-1198
6406	J-3455	Forest	TRUE	1.00	1120.65	1.48	1121.13	20.00	43.37	20.00	20.00	J-3425	(N/A)	17.21	J-1198
6405	J-3454	Forest	TRUE	1.00	1120.65	1.28	1120.93	20.00	42.32	20.00	20.00	J-3425	(N/A)	17.21	J-1198
2197	J-1171	Forest	TRUE	1.00	1120.68	1.68	1121.36	20.00	31.17	20.00	20.00	J-3425	(N/A)	17.21	J-1198
6538	J-3531	Forest	TRUE	1.00	1120.69	1.48	1121.16	20.00	30.21	20.00	20.00	J-3425	(N/A)	17.21	J-1198
6537	J-3530	Forest	TRUE	1.00	1120.69	1.48	1121.17	20.00	29.05	20.00	20.00	J-3425	(N/A)	17.21	J-1198
2222	J-1186	Forest	TRUE	1.00	1120.69	1.08	1120.77	20.00	25.96	20.00	20.00	J-3425	(N/A)	17.21	J-1198
4474	J-2343	Forest	TRUE	1.00	1120.69	1.08	1120.77	20.00	24.98	20.00	20.00	J-3425	(N/A)	17.21	J-1198
4473	J-2342	Forest	TRUE	1.00	1120.69	1.48	1121.17	20.00	24.78	20.00	20.00	J-3425	(N/A)	17.21	J-1198
5345	J-2840	Forest	TRUE	1.00	1124.17	1.48	1124.65	20.00	20.00	20.00	20.30	J-1173	(N/A)	17.20	J-1198
4952	J-2614	Forest	TRUE	1.00	1124.38	2.28	1125.66	20.00	31.12	20.00	20.00	J-379	(N/A)	17.19	J-1198
4953	J-2615	Forest	TRUE	1.00	1124.38	1.08	1124.46	20.00	30.21	20.00	20.00	J-379	(N/A)	17.19	J-1198
5488	J-2922	Forest	TRUE	1.00	1124.88	1.68	1125.56	20.00	22.02	20.00	20.06	J-1048	(N/A)	17.03	J-1198
3297	J-1794	Forest	TRUE	1.00	1124.90	1.08	1124.97	20.00	22.16	20.00	20.05	J-1048	(N/A)	17.03	J-1198
2200	J-1173	Forest	TRUE	1.00	1126.30	1.48	1126.78	20.00	20.00	20.00	20.00	J-2840	(N/A)	17.20	J-1198
4201	J-2250	Forest	TRUE	1.00	1126.36	1.28	1126.64	20.00	27.72	20.00	20.00	J-2878	(N/A)	17.19	J-1198
6964	J-3783	Forest	TRUE	1.00	1126.36	1.68	1127.04	20.00	26.76	20.00	20.00	J-2878	(N/A)	17.19	J-1198
1779	J-911	Forest	TRUE	1.00	1126.74	1.48	1127.21	20.00	20.50	20.00	20.02	J-987	(N/A)	17.19	J-1198
4782	J-2517	Forest	TRUE	1.00	1126.74	1.48	1127.22	20.00	20.50	20.00	20.02	J-987	(N/A)	17.19	J-1198
1895	J-986	Forest	TRUE	1.00	1126.84	1.08	1126.92	20.00	20.60	20.00	20.01	J-987	(N/A)	17.19	J-1198
3164	J-1713	Forest	TRUE	1.00	1126.86	1.08	1126.94	20.00	20.67	20.00	20.01	J-987	(N/A)	17.19	J-1198
3499	J-1907	Forest	TRUE	1.00	1127.00	1.08	1127.07	20.00	21.57	20.00	20.00	J-987	(N/A)	17.19	J-1198
1949	J-1021	Stewartsville	TRUE	1.00	1129.38	1.11	1129.49	20.00	31.11	20.00	20.03	J-1022	(N/A)	17.23	J-1198
4154	J-2230	Forest	TRUE	1.00	1129.56	1.48	1130.04	20.00	20.00	20.00	24.29	J-1197	(N/A)	17.21	J-1198
3804	J-2071	Forest	TRUE	1.00	1131.34	2.08	1132.42	20.00	20.03	20.00	23.01	J-1704	(N/A)	17.19	J-1198
3355	J-1826	Forest	TRUE	1.00	1132.20	1.08	1132.27	20.00	20.06	20.00	21.52	J-3632	(N/A)	17.12	J-1198
3671	J-2001	Forest	TRUE	1.00	1133.33	2.28	1134.61	20.00	23.44	20.00	20.00	J-1037	(N/A)	17.21	J-1198
6707	J-3632	Forest	TRUE	1.00	1137.12	1.08	1137.20	20.00	20.06	20.00	20.37	J-1826	(N/A)	17.12	J-1198
3354	J-1825	Forest	TRUE	1.00	1138.55	1.08	1138.63	20.00	20.85	20.00	20.10	J-1826	(N/A)	17.12	J-1198
6968	J-3785	Forest	TRUE	1.00	1140.40	1.28	1140.68	20.00	21.34	20.00	20.00	J-1736	(N/A)	17.19	J-1198
3487	J-1900	Forest	TRUE	1.00	1140.40	1.68	1141.08	20.00	21.32	20.00	20.00	J-1736	(N/A)	17.19	J-1198
4874	J-2568	Forest	TRUE	1.00	1144.18	1.28	1144.46	20.00	20.00	20.00	20.15	J-1775	(N/A)	17.19	J-1198
3265	J-1775	Forest	TRUE	1.00	1145.64	1.28	1145.92	20.00	20.00	20.00	20.08	J-2568	(N/A)	17.19	J-1198
3707	J-2022	Forest	TRUE	1.00	1146.11	1.68	1146.79	20.00	20.00	20.00	21.95	J-2376	(N/A)	17.20	J-1198
1722	J-874	Forest	TRUE	1.00	1147.87	1.08	1147.95	20.00	20.00	20.00	20.74	J-1115	(N/A)	17.13	J-1198
3644	J-1987	Forest	TRUE	1.00	1148.51	2.08	1149.59	20.00	22.14	20.00	20.00	J-1986	(N/A)	17.19	J-1198
6379	J-3439	Forest	TRUE	1.00	1148.51	1.48	1148.99	20.00	21.61	20.00	20.00	J-1986	(N/A)	17.19	J-1198
3397	J-1848	Forest	TRUE	1.00	1150.95	1.28	1151.22	20.00	20.00	20.00	20.08	J-1774	(N/A)	17.19	J-1198
3264	J-1774	Forest	TRUE	1.00	1151.70	1.28	1151.98	20.00	20.00	20.00	20.08	J-1775	(N/A)	17.19	J-1198
2108	J-1114	Forest	TRUE	1.00	1153.84	1.48	1154.31	20.00	21.96	20.00	20.02	J-1115	(N/A)	17.13	J-1198
3812	J-2075	Forest	TRUE	1.00	1155.70	3.69	1158.38	20.00	20.05	20.00	24.05	J-1704	(N/A)	17.19	J-1198
6431	J-3469	Stewartsville	TRUE	1.00	1158.14	1.11	1158.25	20.00	28.31	20.00	20.04	J-1022	(N/A)	17.23	J-1198
3623	J-1975	Stewartsville	TRUE	1.00	1158.22	1.11	1158.33	20.00	30.40	20.00	20.03	J-1022	(N/A)	17.23	J-1198
7905	J-4142	Forest	TRUE	1.00	1159.23	1.28	1159.50	20.00	20.00	20.00	22.97	J-3137	(N/A)	17.21	J-1198
4278	J-2274	Forest	TRUE	1.00	1160.03	2.28	1161.31	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.15	J-1198
7002	J-3805	Forest	TRUE	1.00	1160.73	1.08	1160.81	20.00	25.27	20.00	20.00	J-3023	(N/A)	17.20	J-1198
4330	J-2290	Forest	TRUE	1.00	1160.74	2.88	1162.62	20.00	24.55	20.00	20.00	J-3023	(N/A)	17.20	J-1198
4342	J-2293	Forest	TRUE	1.00	1161.30	1.68	1161.98	20.00	36.63	20.00	20.00	J-1211	(N/A)	17.20	J-1198
5204	J-2757	Forest	TRUE	1.00	1161.30	1.88	1162.18	20.00	36.71	20.00	20.00	J-1211	(N/A)	17.20	J-1198
1695	J-857	Forest	TRUE	1.00	1161.92	1.48	1162.40	20.00	20.00	20.00	23.19	J-1965	(N/A)	17.19	J-1198
3961	J-2146	Forest	TRUE	1.00	1165.12	2.28	1166.41	20.00	20.01	20.00	24.27	J-1197	(N/A)	17.19	J-1198
5811	J-3108	Lakes	TRUE	1.00	1165.39	1.29	1165.68	20.00	20.00	20.00	21.07	J-2184	(N/A)	17.23	J-1198
2738	J-1479	Forest	TRUE	1.00	1167.95	4.09	1171.04	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
4514	J-2366	Forest	TRUE	1.00	1169.93	1.88	1170.81	20.00	20.02	20.00	20.19	J-3863	(N/A)	17.19	J-1198
4513	J-2365	Forest	TRUE	1.00	1172.10	1.08	1172.17	20.00	20.06	20.00	20.03	J-2366	(N/A)	17.19	J-1198
7106	J-3863	Forest	TRUE	1.00	1172.49	1.08	1172.56	20.00	20.00	20.00	20.01	J-2366	(N/A)	17.19	J-1198
1834	J-946	Forest	TRUE	1.00	1175.34	2.08	1176.42	20.00	20.05	20.00	22.50	J-947	(N/A)	17.07	J-1198
4046	J-2184	Lakes	TRUE	1.00	1176.23	1.37	1176.61	20.00	20.73	20.00	20.02	J-3108	(N/A)	17.23	J-1198
2644	J-1423	Forest	TRUE	1.00	1176.58	1.88	1177.46	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
3890	J-2113	Forest	TRUE	1.00	1177.76	1.48	1178.23	20.00	20.00	20.00	23.08	J-1197	(N/A)	16.00	J-1198
3894	J-2115	Forest	TRUE	1.00	1177.79	1.68	1178.47	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
4263	J-2269	Forest	TRUE	1.00	1179.89	1.28	1180.16	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
4183	J-2242	Forest	TRUE	1.00	1180.83	3.29	1183.12	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
6541	J-3533	Forest	TRUE	1.00	1183.60	1.68	1184.28	20.00	38.39	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6401	J-3452	Forest	TRUE	1.00	1204.67	1.68	1205.35	20.00	27.19	20.00	20.00	J-1197	(N/A)	12.92	J-1198
6400	J-3451	Forest	TRUE	1.00	1204.69	1.48	1205.17	20.00	26.78	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3067	J-1653	Forest	TRUE	1.00	1205.36	1.08	1205.44	20.00	20.00	20.00	20.07	J-1654	(N/A)	17.19	J-1198
3083	J-1663	Forest	TRUE	1.00	1208.98	2.08	1210.06	20.00	21.46	20.00	20.04	J-2061	(N/A)	15.94	J-1198
3084	J-1664	Forest	TRUE	1.00	1208.99	1.08	1209.07	20.00	21.36	20.00	20.04	J-2061	(N/A)	15.94	J-1198
3673	J-2002	Forest	TRUE	1.00	1209.84	1.88	1210.72	20.00	20.02	20.00	24.27	J-1197	(N/A)	17.19	J-1198
3727	J-2033	Forest	TRUE	1.00	1210.00	2.28	1211.28	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
2567	J-1378	Forest	TRUE	1.00	1210.09	2.68	1211.77	20.00	20.00	20.00	24.21	J-1197	(N/A)	17.13	J-1198
7173	J-3898	Forest	TRUE	1.00	1210.10	1.08	1210.18	20.00	20.01	20.00	20.09	J-3897	(N/A)	17.21	J-1198
3484	J-1898	Forest	TRUE	1.00	1210.83	2.28	1212.11	20.00	20.00	20.00	21.01	J-1899	(N/A)	17.20	J-1198
5573	J-2970	Forest	TRUE	1.00	1210.98	1.88	1211.86	20.00	26.55	20.00	20.00	J-1653	(N/A)	17.19	J-1198
3574	J-1949	Forest	TRUE	1.00	1210.98	1.88	1211.86	20.00	26.58	20.00	20.00	J-1653	(N/A)	17.19	J-1198
7172	J-3897	Forest	TRUE	1.00	1211.01	1.08	1211.08	20.00	20.01	20.00	20.01	J-3898	(N/A)	17.21	J-1198
1619	J-809	Forest	TRUE	1.00	1211.28	1.68	1211.96	20.00	21.85	20.00	20.00	J-1653	(N/A)	17.19	J-1198
3573	J-1948	Forest	TRUE	1.00	1211.29	1.48	1211.77	20.00	27.24	20.00	20.00	J-1653	(N/A)	17.19	J-1198
1616	J-807	Forest	TRUE	1.00	1212.11	1.88	1212.99	20.00	23.25	20.00	20.00	J-1653	(N/A)	17.19	J-1198
3631	J-1980	Forest	TRUE	1.00	1212.14	2.28	1213.42	20.00	26.79	20.00	20.00	J-1653	(N/A)	17.19	J-1198
3630	J-1979	Forest	TRUE	1.00	1212.47	1.88	1213.35	20.00	28.84	20.00	20.00	J-1653	(N/A)	17.19	J-1198
5714	J-3052	Forest	TRUE	1.00	1212.47	1.08	1212.55	20.00	28.80	20.00	20.00	J-1653	(N/A)	17.19	J-1198
3148	J-1704	Forest	TRUE	1.00	1212.56	1.68	1213.24	20.00	20.00	20.00	20.12	J-1653	(N/A)	17.19	J-1198
3601	J-1965	Forest	TRUE	1.00	1212.77	1.08	1212.85	20.00	20.01	20.00	20.74	J-3727	(N/A)	17.19	J-1198
4200	J-2249	Forest	TRUE	1.00	1212.93	1.88	1213.81	20.00	22.05	20.00	20.00	J-1965	(N/A)	17.19	J-1198
6869	J-3727	Forest	TRUE	1.00	1213.74	1.68	1214.42	20.00	20.00	20.00	21.08	J-3728	(N/A)	17.19	J-1198
3810	J-2074	Forest	TRUE	1.00	1215.72	2.28	1217.00	20.00	38.69	20.00	20.00	J-1257	(N/A)	17.19	J-1198
5536	J-2949	Forest	TRUE	1.00	1215.72	1.28	1216.00	20.00	38.18	20.00	20.00	J-1257	(N/A)	17.19	J-1198
3593	J-1960	Forest	TRUE	1.00	1216.03	2.68	1217.71	20.00	20.00	20.00	22.33	J-1961	(N/A)	17.20	J-1198
2206	J-1176	Forest	TRUE	1.00	1217.33	1.28	1217.61	20.00	37.79	20.00	20.00	J-1197	(N/A)	12.92	J-1198
6848	J-3715	Forest	TRUE	1.00	1217.35	1.48	1217.83	20.00	28.92	20.00	20.00	J-2267	(N/A)	17.07	J-1198
4214	J-2254	Forest	TRUE	1.00	1217.35	1.48	1217.83	20.00	28.78	20.00	20.00	J-2267	(N/A)	17.07	J-1198
4656	J-2447	Forest	TRUE	1.00	1217.41	1.08	1217.49	20.00	20.01	20.00	20.26	J-1652	(N/A)	17.18	J-1198
4662	J-2450	Forest	TRUE	1.00	1218.34	2.28	1219.62	20.00	20.00	20.00	20.32	J-1263	(N/A)	17.00	J-1198
3064	J-1651	Forest	TRUE	1.00	1218.85	1.08	1218.93	20.00	20.01	20.00	20.13	J-2447	(N/A)	17.18	J-1198
2356	J-1263	Forest	TRUE	1.00	1219.85	2.48	1221.34	20.00	20.16	20.00	20.06	J-2450	(N/A)	17.00	J-1198
3065	J-1652	Forest	TRUE	1.00	1220.28	1.68	1220.96	20.00	20.08	20.00	20.04	J-2447	(N/A)	17.18	J-1198
3853	J-2095	Forest	TRUE	1.00	1222.07	1.68	1222.75	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
3876	J-2106	Forest	TRUE	1.00	1223.92	1.68	1224.60	20.00	20.02	20.00	24.27	J-1197	(N/A)	17.19	J-1198
6870	J-3728	Forest	TRUE	1.00	1224.94	2.08	1226.02	20.00	20.42	20.00	20.01	J-3727	(N/A)	17.19	J-1198
2602	J-1399	Forest	TRUE	1.00	1226.59	1.88	1227.47	20.00	20.03	20.00	24.19	J-1197	(N/A)	17.11	J-1198
7021	J-3816	Forest	TRUE	1.00	1228.29	1.08	1228.37	20.00	20.00	20.00	20.83	J-1695	(N/A)	17.19	J-1198
2687	J-1448	Forest	TRUE	1.00	1229.01	2.08	1230.09	20.00	20.06	20.00	24.20	J-1197	(N/A)	17.12	J-1198
3079	J-1661	Forest	TRUE	1.00	1229.46	1.08	1229.54	20.00	20.00	20.00	20.23	J-1660	(N/A)	17.20	J-1198
6903	J-3748	Forest	TRUE	1.00	1229.61	1.08	1229.69	20.00	20.00	20.00	21.49	J-1796	(N/A)	17.20	J-1198
3864	J-2100	Forest	TRUE	1.00	1229.78	1.48	1230.26	20.00	20.00	20.00	24.08	J-1197	(N/A)	17.00	J-1198
6231	J-3351	Forest	TRUE	1.00	1229.94	2.28	1231.22	20.00	20.00	20.00	20.16	J-1660	(N/A)	17.20	J-1198
3078	J-1660	Forest	TRUE	1.00	1231.00	1.28	1231.28	20.00	20.00	20.00	20.01	J-1661	(N/A)	17.20	J-1198
8525	J-4214	Forest	TRUE	1.00	1231.67	1.08	1231.75	20.00	25.19	20.00	20.00	J-4154	(N/A)	17.19	J-1198
7977	J-4154	Forest	TRUE	1.00	1231.70	1.28	1231.98	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.19	J-1198
3817	J-2077	Forest	TRUE	1.00	1231.92	4.29	1235.21	20.00	31.16	20.00	20.00	J-1148	(N/A)	17.18	J-1198
5193	J-2751	Forest	TRUE	1.00	1235.30	1.88	1236.18	20.00	20.02	20.00	20.23	J-2174	(N/A)	17.19	J-1198
1984	J-1044	Forest	TRUE	1.00	1236.93	1.08	1237.01	20.00	20.02	20.00	21.92	J-2619	(N/A)	17.00	J-1198
3133	J-1694	Forest	TRUE	1.00	1237.36	1.08	1237.44	20.00	20.00	20.00	20.33	J-1695	(N/A)	17.19	J-1198
3319	J-1805	Forest	TRUE	1.00	1237.50	1.08	1237.57	20.00	20.00	20.00	20.12	J-3748	(N/A)	17.20	J-1198
3415	J-1858	Forest	TRUE	1.00	1238.60	1.48	1239.08	20.00	36.78	20.00	20.00	J-1197	(N/A)	12.92	J-1198
4025	J-2174	Forest	TRUE	1.00	1238.64	1.88	1239.52	20.00	20.02	20.00	20.11	J-2751	(N/A)	17.19	J-1198
3416	J-1859	Forest	TRUE	1.00	1238.67	1.48	1239.15	20.00	32.36	20.00	20.00	J-1197	(N/A)	12.92	J-1198
1876	J-974	Forest	TRUE	1.00	1238.69	1.48	1239.17	20.00	20.48	20.00	20.03	J-3748	(N/A)	17.20	J-1198
6980	J-3792	Forest	TRUE	1.00	1238.75	2.08	1239.83	20.00	20.05	20.00	21.03	J-1704	(N/A)	17.18	J-1198
3301	J-1796	Forest	TRUE	1.00	1238.82	1.48	1239.29	20.00	20.82	20.00	20.02	J-3748	(N/A)	17.20	J-1198
6477	J-3496	Forest	TRUE	1.00	1238.89	1.48	1239.37	20.00	20.00	20.00	20.48	J-3495	(N/A)	17.19	J-1198
5732	J-3063	Forest	TRUE	1.00	1241.81	1.68	1242.49	20.00	20.01	20.00	20.40	J-3062	(N/A)	17.20	J-1198
2553	J-1371	Forest	TRUE	1.00	1242.45	1.48	1242.93	20.00	58.58	20.00	20.01	J-3425	(N/A)	17.20	J-1198
2554	J-1372	Forest	TRUE	1.00	1242.60	1.48	1243.07	20.00	23.81	20.00	20.00	J-3425	(N/A)	17.20	J-1198
6476	J-3495	Forest	TRUE	1.00	1242.70	1.88	1243.58	20.00	20.00	20.00	20.06	J-3496	(N/A)	17.19	J-1198
2180	J-1160	Forest	TRUE	1.00	1242.72	1.08	1242.80	20.00	33.21	20.00	20.00	J-3495	(N/A)	17.19	J-1198
5029	J-2659	Forest	TRUE	1.00	1242.72	1.88	1243.60	20.00	32.39	20.00	20.00	J-3495	(N/A)	17.19	J-1198
5030	J-2660	Forest	TRUE	1.00	1242.72	1.48	1243.20	20.00	32.17	20.00	20.00	J-3495	(N/A)	17.19	J-1198
3134	J-1695	Forest	TRUE	1.00	1243.00	1.88	1243.88	20.00	20.02	20.00	20.12	J-1694	(N/A)	17.19	J-1198
3981	J-2155	Forest	TRUE	1.00	1245.99	2.08	1247.07	20.00	20.01	20.00	24.26	J-1197	(N/A)	17.19	J-1198
3647	J-1989	Forest	TRUE	1.00	1246.25	1.88	1247.13	20.00	50.14	20.00	20.00	J-2045	(N/A)	15.63	J-1198
2104	J-1112	Forest	TRUE	1.00	1246.66	1.88	1247.54	20.00	20.00	20.00	24.20	J-1197	(N/A)	17.12	J-1198
5731	J-3062	Forest	TRUE	1.00	1246.73	1.68	1247.41	20.00	20.01	20.00	20.01	J-3063	(N/A)	17.20	J-1198
3275	J-1781	Forest	TRUE	1.00	1252.09	2.28	1253.38	20.00	35.85	20.00	20.00	J-1704	(N/A)	17.18	J-1198
6979	J-3791	Forest	TRUE	1.00	1253.59	1.48	1254.07	20.00	20.50	20.00	20.00	J-3792	(N/A)	17.18	J-1198
1686	J-851	Forest	TRUE	1.00	1255.15	1.48	1255.63	20.00	21.58	20.00	20.07	J-850	(N/A)	17.10	J-1198
3945	J-2139	Forest	TRUE	1.00	1256.01	1.68	1256.69	20.00	20.45	20.00	20.00	J-3792	(N/A)	17.18	J-1198
3276	J-1782	Forest	TRUE	1.00	1256.58	1.48	1257.06	20.00	35.34	20.00	20.00	J-1704	(N/A)	17.18	J-1198
6635	J-3590	Forest	TRUE	1.00	1256.59	1.28	1256.87	20.00	34.46	20.00	20.00	J-1704	(N/A)	17.18	J-1198
4960	J-2619	Forest	TRUE	1.00	1257.13	1.48	1257.61	20.00	20.01	20.00	20.28	J-1044	(N/A)	16.99	J-1198
3988	J-2157	Forest	TRUE	1.00	1259.00	1.88	1259.88	20.00	22.25	20.					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5477	J-2916	Forest	TRUE	1.00	1267.82	1.88	1268.70	20.00	20.00	20.00	20.20	J-1877	(N/A)	17.20	J-1198
6499	J-3508	Lakes	TRUE	1.00	1267.85	1.20	1268.05	20.00	25.09	20.00	20.13	J-1622	(N/A)	17.23	J-1198
6500	J-3509	Lakes	TRUE	1.00	1267.94	1.20	1268.14	20.00	24.34	20.00	20.12	J-1622	(N/A)	17.23	J-1198
3448	J-1877	Forest	TRUE	1.00	1269.61	1.08	1269.69	20.00	20.00	20.00	20.17	J-2916	(N/A)	17.20	J-1198
4921	J-2596	Forest	TRUE	1.00	1270.23	1.08	1270.31	20.00	20.00	20.00	20.31	J-1862	(N/A)	16.99	J-1198
6717	J-3638	Forest	TRUE	1.00	1270.36	1.48	1270.84	20.00	58.56	20.00	20.01	J-3425	(N/A)	17.20	J-1198
6716	J-3637	Forest	TRUE	1.00	1270.36	1.68	1271.04	20.00	58.17	20.00	20.01	J-3425	(N/A)	17.20	J-1198
3421	J-1861	Forest	TRUE	1.00	1271.11	1.28	1271.39	20.00	20.28	20.00	20.12	J-2596	(N/A)	16.99	J-1198
4706	J-2474	Forest	TRUE	1.00	1272.22	1.48	1272.70	20.00	20.44	20.00	20.00	J-3954	(N/A)	17.16	J-1198
4082	J-2200	Forest	TRUE	1.00	1273.90	1.88	1274.78	20.00	20.00	20.00	24.20	J-1197	(N/A)	17.12	J-1198
3730	J-2035	Lakes	TRUE	1.00	1277.07	1.20	1277.27	20.00	20.01	20.00	28.54	J-2646	(N/A)	17.23	J-1198
4243	J-2261	Forest	TRUE	1.00	1280.09	2.28	1281.37	20.00	20.00	20.00	24.20	J-1197	(N/A)	17.12	J-1198
1622	J-811	Lakes	TRUE	1.00	1281.18	1.29	1281.47	20.00	24.98	20.00	20.13	J-1622	(N/A)	17.23	J-1198
1746	J-890	Forest	TRUE	1.00	1282.36	1.28	1282.64	20.00	23.71	20.00	20.00	J-913	(N/A)	17.18	J-1198
2520	J-1352	Forest	TRUE	1.00	1282.36	1.08	1282.43	20.00	23.43	20.00	20.00	J-913	(N/A)	17.18	J-1198
2920	J-1580	Forest	TRUE	1.00	1284.88	1.88	1285.76	20.00	20.00	20.00	21.13	J-3687	(N/A)	17.18	J-1198
6927	J-3762	Forest	TRUE	1.00	1286.63	1.08	1286.71	20.00	20.00	20.00	20.79	J-1763	(N/A)	17.18	J-1198
3447	J-1876	Forest	TRUE	1.00	1287.57	1.48	1288.05	20.00	20.00	20.00	20.85	J-1877	(N/A)	17.20	J-1198
1143	J-604	Forest	TRUE	1.00	1288.70	1.48	1289.17	20.00	48.35	20.00	20.02	J-3438	(N/A)	17.19	J-1198
5787	J-3094	Forest	TRUE	1.00	1288.70	1.08	1288.78	20.00	48.06	20.00	20.02	J-3438	(N/A)	17.19	J-1198
6800	J-3687	Forest	TRUE	1.00	1289.25	3.09	1291.34	20.00	20.00	20.00	21.07	J-1868	(N/A)	17.18	J-1198
3413	J-1857	Forest	TRUE	1.00	1289.39	1.68	1290.07	20.00	20.00	20.00	22.25	J-1856	(N/A)	17.20	J-1198
4178	J-2240	Forest	TRUE	1.00	1289.84	2.68	1291.53	20.00	20.01	20.00	24.20	J-1197	(N/A)	17.12	J-1198
3245	J-1762	Forest	TRUE	1.00	1293.04	1.08	1293.11	20.00	20.00	20.00	20.43	J-1763	(N/A)	17.18	J-1198
3557	J-1939	Forest	TRUE	1.00	1293.23	1.08	1293.31	20.00	20.00	20.00	21.94	J-1940	(N/A)	17.18	J-1198
5876	J-3144	Forest	TRUE	1.00	1296.19	2.68	1297.88	20.00	20.00	20.00	20.43	J-2219	(N/A)	17.20	J-1198
3432	J-1868	Forest	TRUE	1.00	1296.24	3.89	1299.13	20.00	20.40	20.00	20.05	J-3687	(N/A)	17.18	J-1198
4905	J-2587	Lakes	TRUE	1.00	1299.86	1.29	1300.15	20.00	20.00	20.00	20.22	J-2010	(N/A)	17.23	J-1198
3686	J-2010	Lakes	TRUE	1.00	1300.06	1.37	1300.43	20.00	20.00	20.00	20.26	J-2587	(N/A)	17.23	J-1198
6846	J-3714	Forest	TRUE	1.00	1300.16	1.48	1300.64	20.00	20.00	20.00	20.85	J-1976	(N/A)	16.98	J-1198
7122	J-3872	Lakes	TRUE	1.00	1300.47	1.20	1300.67	20.00	20.57	20.00	20.08	J-2010	(N/A)	17.23	J-1198
4904	J-2586	Lakes	TRUE	1.00	1300.76	1.20	1300.95	20.00	20.72	20.00	20.08	J-2010	(N/A)	17.23	J-1198
3246	J-1763	Forest	TRUE	1.00	1300.91	1.28	1301.19	20.00	20.00	20.00	20.02	J-3762	(N/A)	17.18	J-1198
4128	J-2219	Forest	TRUE	1.00	1301.05	1.48	1301.53	20.00	20.01	20.00	20.01	J-3144	(N/A)	17.20	J-1198
3009	J-1620	Lakes	TRUE	1.00	1303.01	1.98	1303.99	20.00	20.03	20.00	22.11	J-1847	(N/A)	17.23	J-1198
6163	J-3310	Forest	TRUE	1.00	1303.52	1.08	1303.60	20.00	46.77	20.00	20.00	J-1197	(N/A)	12.92	J-1198
6164	J-3311	Forest	TRUE	1.00	1303.54	1.08	1303.61	20.00	45.72	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3626	J-1977	Forest	TRUE	1.00	1305.61	1.88	1306.49	20.00	20.00	20.00	20.19	J-3714	(N/A)	16.98	J-1198
3651	J-1991	Forest	TRUE	1.00	1306.59	2.28	1307.87	20.00	35.13	20.00	20.01	J-2366	(N/A)	17.18	J-1198
3652	J-1992	Forest	TRUE	1.00	1306.71	1.48	1307.19	20.00	25.69	20.00	20.00	J-2366	(N/A)	17.18	J-1198
4909	J-2589	Forest	TRUE	1.00	1306.71	1.68	1307.39	20.00	25.54	20.00	20.00	J-2366	(N/A)	17.18	J-1198
3625	J-1976	Forest	TRUE	1.00	1306.92	1.08	1307.00	20.00	20.19	20.00	20.06	J-3714	(N/A)	16.98	J-1198
5005	J-2645	Forest	TRUE	1.00	1307.49	1.48	1307.97	20.00	20.00	20.00	20.29	J-1940	(N/A)	17.18	J-1198
2231	J-1191	Forest	TRUE	1.00	1308.50	1.28	1308.78	20.00	47.10	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3412	J-1856	Forest	TRUE	1.00	1309.10	1.88	1309.98	20.00	20.00	20.00	20.17	J-1857	(N/A)	17.20	J-1198
3140	J-1699	Forest	TRUE	1.00	1309.67	1.08	1309.75	20.00	20.02	20.00	20.55	J-1698	(N/A)	17.19	J-1198
3558	J-1940	Forest	TRUE	1.00	1309.94	1.08	1310.02	20.00	20.00	20.00	20.01	J-2645	(N/A)	17.18	J-1198
6064	J-3251	Lakes	TRUE	1.00	1311.80	1.20	1312.00	20.00	20.00	20.00	20.29	J-3252	(N/A)	17.23	J-1198
6065	J-3252	Lakes	TRUE	1.00	1313.34	1.29	1313.63	20.00	20.00	20.00	20.21	J-3251	(N/A)	17.23	J-1198
5147	J-2725	Forest	TRUE	1.00	1313.65	1.68	1314.33	20.00	20.01	20.00	20.19	J-1699	(N/A)	17.19	J-1198
3395	J-1847	Lakes	TRUE	1.00	1314.50	1.46	1314.96	20.00	20.00	20.00	20.04	J-3252	(N/A)	17.23	J-1198
3128	J-1691	Forest	TRUE	1.00	1315.24	1.28	1315.52	20.00	31.56	20.00	20.00	J-2110	(N/A)	17.19	J-1198
5191	J-2750	Forest	TRUE	1.00	1315.24	2.28	1316.52	20.00	31.17	20.00	20.00	J-2110	(N/A)	17.19	J-1198
3139	J-1698	Forest	TRUE	1.00	1315.40	1.08	1315.48	20.00	20.10	20.00	20.05	J-1699	(N/A)	17.19	J-1198
4650	J-2444	Forest	TRUE	1.00	1317.71	1.68	1318.39	20.00	53.93	20.00	20.00	J-3438	(N/A)	17.19	J-1198
1061	J-574	Forest	TRUE	1.00	1317.71	1.88	1318.59	20.00	53.99	20.00	20.00	J-3438	(N/A)	17.19	J-1198
4152	J-2229	Forest	TRUE	1.00	1317.99	1.88	1318.87	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
5007	J-2646	Lakes	TRUE	1.00	1319.23	1.20	1319.43	20.00	20.02	20.00	20.37	J-2036	(N/A)	17.23	J-1198
3731	J-2036	Lakes	TRUE	1.00	1320.62	1.20	1321.02	20.00	20.05	20.00	20.00	J-2646	(N/A)	17.23	J-1198
6130	J-3291	Forest	TRUE	1.00	1321.84	1.68	1322.52	20.00	20.00	20.00	20.70	J-2299	(N/A)	17.18	J-1198
3058	J-1647	Forest	TRUE	1.00	1321.89	1.08	1321.97	20.00	20.00	20.00	20.31	J-1648	(N/A)	17.10	J-1198
3129	J-1692	Forest	TRUE	1.00	1322.42	2.08	1323.50	20.00	31.68	20.00	20.00	J-2110	(N/A)	17.19	J-1198
3059	J-1648	Forest	TRUE	1.00	1322.98	1.08	1323.06	20.00	20.14	20.00	20.10	J-1647	(N/A)	17.10	J-1198
3442	J-1874	Forest	TRUE	1.00	1323.90	1.08	1323.97	20.00	26.11	20.00	20.00	J-4154	(N/A)	17.18	J-1198
3441	J-1873	Forest	TRUE	1.00	1323.94	1.48	1324.42	20.00	22.96	20.00	20.00	J-4154	(N/A)	17.18	J-1198
5851	J-3130	Forest	TRUE	1.00	1323.95	1.48	1324.43	20.00	21.96	20.00	20.00	J-4154	(N/A)	17.18	J-1198
1837	J-948	Forest	TRUE	1.00	1325.57	1.28	1325.85	20.00	33.22	20.00	20.00	J-3090	(N/A)	16.98	J-1198
7479	J-4021	Forest	TRUE	1.00	1325.57	1.08	1325.65	20.00	27.55	20.00	20.00	J-3090	(N/A)	16.98	J-1198
6677	J-3614	Forest	TRUE	1.00	1325.57	1.88	1326.45	20.00	29.43	20.00	20.00	J-3090	(N/A)	16.98	J-1198
6516	J-3518	Forest	TRUE	1.00	1325.57	1.48	1326.05	20.00	27.57	20.00	20.00	J-3090	(N/A)	16.98	J-1198
6517	J-3519	Forest	TRUE	1.00	1325.57	1.48	1326.05	20.00	26.70	20.00	20.00	J-3090	(N/A)	16.98	J-1198
6678	J-3615	Forest	TRUE	1.00	1325.57	1.68	1326.25	20.00	29.98	20.00	20.00	J-3090	(N/A)	16.98	J-1198
6662	J-3605	Forest	TRUE	1.00	1325.57	1.88	1326.45	20.00	24.64	20.00	20.00	J-3090	(N/A)	16.98	J-1198
6663	J-3606	Forest	TRUE	1.00	1325.57	1.88	1326.45	20.00	25.53	20.00	20.00	J-3090	(N/A)	16.98	J-1198
5326	J-2829	Forest	TRUE	1.00	1326.97	1.28	1327.25	20.00	20.01	20.00	20.23	J-3889	(N/A)	17.20	J-1198
7153	J-3889	Forest	TRUE	1.00	1328.50	1.08	1328.58	20.00	20.01	20.00	20.09	J-2828	(N/A)	17.20	J-1198
6180	J-3320	Forest	TRUE	1.00	1328.62	1.48	1329.10	20.00	20.00	20.00	20.18	J-1542	(N/A)	17.21	J-1198
5141	J-2722	Forest	TRUE	1.00	1329.14	1.08	1329.21	20.00	20.00	20.00	20.06	J-1838	(N/A)	17.10	J-1198
5325	J-2828	Forest	TRUE	1.00	1329.49	1.88	1330.37	20.00	20.00	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5218	J-2765	Forest	TRUE	1.00	1339.74	2.08	1340.82	20.00	20.01	20.00	20.25	J-2766	(N/A)	17.18	J-1198
2850	J-1544	Forest	TRUE	1.00	1340.03	1.88	1340.92	20.00	20.00	20.00	21.44	J-1542	(N/A)	17.21	J-1198
4432	J-2322	Lakes	TRUE	1.00	1340.62	2.15	1341.77	20.00	55.78	20.00	20.08	J-2323	(N/A)	17.23	J-1198
3806	J-2072	Forest	TRUE	1.00	1340.64	2.08	1341.72	20.00	20.00	20.00	24.19	J-1197	(N/A)	17.12	J-1198
3224	J-1749	Forest	TRUE	1.00	1342.07	1.48	1342.55	20.00	21.00	20.00	20.03	J-2115	(N/A)	17.19	J-1198
7108	J-3864	Lakes	TRUE	1.00	1342.84	1.20	1343.04	20.00	55.98	20.00	20.04	J-2323	(N/A)	17.23	J-1198
7109	J-3865	Lakes	TRUE	1.00	1342.84	1.20	1343.04	20.00	56.03	20.00	20.04	J-2323	(N/A)	17.23	J-1198
7139	J-3881	Lakes	TRUE	1.00	1342.84	1.20	1343.04	20.00	56.05	20.00	20.04	J-2323	(N/A)	17.23	J-1198
5219	J-2766	Forest	TRUE	1.00	1344.44	1.88	1345.32	20.00	20.01	20.00	20.12	J-2765	(N/A)	17.18	J-1198
1858	J-962	Forest	TRUE	1.00	1344.56	2.28	1345.84	20.00	30.45	20.00	20.00	J-2766	(N/A)	17.18	J-1198
5500	J-2928	Forest	TRUE	1.00	1344.56	1.48	1345.04	20.00	29.85	20.00	20.00	J-2766	(N/A)	17.18	J-1198
4112	J-2212	Forest	TRUE	1.00	1348.21	2.48	1349.69	20.00	20.01	20.00	24.19	J-1197	(N/A)	17.11	J-1198
2938	J-1588	Forest	TRUE	1.00	1350.17	2.48	1351.65	20.00	25.77	20.00	20.00	J-1206	(N/A)	15.68	J-1198
5608	J-2990	Forest	TRUE	1.00	1350.31	1.48	1350.79	20.00	21.25	20.00	20.02	J-2115	(N/A)	17.19	J-1198
3223	J-1748	Forest	TRUE	1.00	1350.57	1.68	1351.25	20.00	21.46	20.00	20.00	J-2115	(N/A)	17.19	J-1198
5783	J-3092	Forest	TRUE	1.00	1351.01	1.68	1351.69	20.00	71.37	20.00	20.00	J-3438	(N/A)	17.19	J-1198
982	J-538	Forest	TRUE	1.00	1351.02	1.08	1351.09	20.00	71.46	20.00	20.00	J-3438	(N/A)	17.19	J-1198
3728	J-2034	Forest	TRUE	1.00	1352.49	2.88	1354.38	20.00	22.82	20.00	20.00	J-2033	(N/A)	17.18	J-1198
6737	J-3649	Forest	TRUE	1.00	1352.49	2.28	1353.78	20.00	21.67	20.00	20.00	J-2033	(N/A)	17.18	J-1198
6923	J-3760	Forest	TRUE	1.00	1352.83	1.88	1353.71	20.00	20.00	20.00	21.29	J-2312	(N/A)	17.20	J-1198
4219	J-2255	Forest	TRUE	1.00	1353.63	1.68	1354.31	20.00	20.00	20.00	20.65	J-1533	(N/A)	17.20	J-1198
6124	J-3287	Lakes	TRUE	1.00	1354.49	1.20	1354.69	20.00	23.37	20.00	20.00	J-2010	(N/A)	17.23	J-1198
6125	J-3288	Lakes	TRUE	1.00	1354.49	1.20	1354.69	20.00	23.26	20.00	20.00	J-2010	(N/A)	17.23	J-1198
4573	J-2400	Forest	TRUE	1.00	1355.80	2.08	1356.88	20.00	20.02	20.00	20.15	J-2324	(N/A)	17.19	J-1198
2831	J-1533	Forest	TRUE	1.00	1357.40	1.48	1357.88	20.00	20.29	20.00	20.05	J-2255	(N/A)	17.20	J-1198
4439	J-2324	Forest	TRUE	1.00	1357.74	1.88	1358.63	20.00	20.02	20.00	20.09	J-2400	(N/A)	17.19	J-1198
2808	J-1520	Forest	TRUE	1.00	1357.83	2.28	1359.11	20.00	20.01	20.00	20.81	J-2567	(N/A)	17.19	J-1198
4104	J-2209	Forest	TRUE	1.00	1359.78	1.28	1360.06	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
7329	J-3966	Forest	TRUE	1.00	1361.29	1.88	1362.17	20.00	20.20	20.00	20.03	J-2324	(N/A)	17.19	J-1198
4396	J-2312	Forest	TRUE	1.00	1361.98	2.28	1363.26	20.00	20.45	20.00	20.04	J-3760	(N/A)	17.20	J-1198
4872	J-2567	Forest	TRUE	1.00	1363.36	1.08	1363.44	20.00	20.03	20.00	20.48	J-1795	(N/A)	17.19	J-1198
3733	J-2037	Forest	TRUE	1.00	1364.88	2.08	1365.96	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.15	J-1198
3930	J-2133	Forest	TRUE	1.00	1365.80	2.28	1367.09	20.00	20.01	20.00	24.26	J-1197	(N/A)	17.18	J-1198
3299	J-1795	Forest	TRUE	1.00	1366.81	1.88	1367.69	20.00	20.19	20.00	20.05	J-2567	(N/A)	17.19	J-1198
7027	J-3819	Forest	TRUE	1.00	1367.55	2.48	1369.03	20.00	20.00	20.00	21.34	J-2151	(N/A)	17.18	J-1198
3146	J-1703	Forest	TRUE	1.00	1367.74	1.48	1368.22	20.00	20.00	20.00	20.42	J-2758	(N/A)	17.10	J-1198
5206	J-2758	Forest	TRUE	1.00	1368.22	1.28	1368.49	20.00	20.00	20.00	20.47	J-1703	(N/A)	17.10	J-1198
4496	J-2355	Forest	TRUE	1.00	1369.18	1.08	1369.26	20.00	25.63	20.00	20.00	J-1206	(N/A)	15.64	J-1198
3219	J-1746	Forest	TRUE	1.00	1369.18	1.28	1369.46	20.00	25.98	20.00	20.00	J-1206	(N/A)	15.64	J-1198
5086	J-2692	Forest	TRUE	1.00	1370.25	1.48	1370.73	20.00	20.00	20.00	21.10	J-2031	(N/A)	17.18	J-1198
3145	J-1702	Forest	TRUE	1.00	1371.09	1.08	1371.17	20.00	20.33	20.00	20.07	J-2758	(N/A)	17.10	J-1198
3875	J-2105	Forest	TRUE	1.00	1371.21	1.88	1372.09	20.00	31.86	20.00	20.01	J-4154	(N/A)	17.18	J-1198
3031	J-1630	Forest	TRUE	1.00	1373.70	1.28	1373.98	20.00	32.02	20.00	20.00	J-610	(N/A)	17.18	J-1198
3032	J-1631	Forest	TRUE	1.00	1373.70	1.48	1374.18	20.00	31.81	20.00	20.00	J-610	(N/A)	17.18	J-1198
5032	J-2661	Forest	TRUE	1.00	1375.49	1.68	1376.17	20.00	53.80	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5033	J-2662	Forest	TRUE	1.00	1375.50	2.08	1376.58	20.00	53.78	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5092	J-2695	Forest	TRUE	1.00	1377.56	1.48	1378.04	20.00	20.00	20.00	20.67	J-1768	(N/A)	17.22	J-1198
3723	J-2031	Forest	TRUE	1.00	1378.23	1.68	1378.91	20.00	20.73	20.00	20.00	J-2692	(N/A)	17.18	J-1198
5212	J-2761	Forest	TRUE	1.00	1378.34	1.68	1379.02	20.00	29.43	20.00	20.00	J-2324	(N/A)	17.19	J-1198
5213	J-2762	Forest	TRUE	1.00	1378.34	1.48	1378.82	20.00	28.96	20.00	20.00	J-2324	(N/A)	17.19	J-1198
4168	J-2237	Forest	TRUE	1.00	1378.66	2.48	1380.14	20.00	20.03	20.00	24.19	J-1197	(N/A)	17.11	J-1198
5292	J-2808	Forest	TRUE	1.00	1378.73	1.48	1379.21	20.00	22.98	20.00	20.00	J-3063	(N/A)	17.20	J-1198
5293	J-2809	Forest	TRUE	1.00	1378.73	1.08	1378.81	20.00	22.54	20.00	20.00	J-3063	(N/A)	17.20	J-1198
6486	J-3501	Forest	TRUE	1.00	1384.75	1.08	1384.83	20.00	85.98	20.00	20.00	J-3438	(N/A)	17.19	J-1198
1259	J-654	Forest	TRUE	1.00	1384.75	1.28	1385.03	20.00	86.54	20.00	20.00	J-3438	(N/A)	17.19	J-1198
3255	J-1769	Forest	TRUE	1.00	1384.92	1.48	1385.40	20.00	20.00	20.00	20.09	J-2695	(N/A)	17.22	J-1198
4023	J-2173	Forest	TRUE	1.00	1385.36	2.48	1386.85	20.00	35.89	20.00	20.00	J-2324	(N/A)	17.19	J-1198
4575	J-2401	Forest	TRUE	1.00	1385.37	1.08	1385.45	20.00	35.69	20.00	20.00	J-2324	(N/A)	17.19	J-1198
7135	J-3879	Forest	TRUE	1.00	1385.37	1.08	1385.45	20.00	35.56	20.00	20.00	J-2324	(N/A)	17.19	J-1198
4576	J-2402	Forest	TRUE	1.00	1385.38	1.48	1385.85	20.00	35.51	20.00	20.00	J-2324	(N/A)	17.19	J-1198
3254	J-1768	Forest	TRUE	1.00	1386.85	1.48	1387.33	20.00	20.31	20.00	20.02	J-2695	(N/A)	17.22	J-1198
3674	J-2003	Forest	TRUE	1.00	1387.08	1.88	1387.96	20.00	23.26	20.00	20.00	J-2002	(N/A)	17.18	J-1198
6273	J-3376	Lakes	TRUE	1.00	1387.13	1.37	1387.50	20.00	20.91	20.00	20.09	J-3377	(N/A)	17.23	J-1198
6274	J-3377	Lakes	TRUE	1.00	1387.62	2.52	1389.14	20.00	20.00	20.00	20.46	J-2323	(N/A)	17.23	J-1198
1958	J-1027	Forest	TRUE	1.00	1387.77	1.08	1387.84	20.00	21.60	20.00	20.10	J-1028	(N/A)	16.96	J-1198
4148	J-2228	Forest	TRUE	1.00	1387.91	2.08	1388.99	20.00	20.04	20.00	24.28	J-1197	(N/A)	17.20	J-1198
7386	J-3988	Forest	TRUE	1.00	1389.94	1.48	1390.42	20.00	44.09	20.00	20.00	J-3425	(N/A)	17.20	J-1198
2667	J-1436	Forest	TRUE	1.00	1389.94	1.08	1390.02	20.00	43.38	20.00	20.00	J-3425	(N/A)	17.20	J-1198
6723	J-3641	Forest	TRUE	1.00	1389.95	1.48	1390.43	20.00	42.66	20.00	20.00	J-3425	(N/A)	17.20	J-1198
7491	J-4025	Forest	TRUE	1.00	1390.50	1.68	1391.18	20.00	23.23	20.00	20.00	J-3063	(N/A)	17.20	J-1198
3637	J-1983	Lakes	TRUE	1.00	1391.52	1.29	1391.81	20.00	50.42	20.00	20.08	J-2323	(N/A)	17.23	J-1198
6073	J-3257	Lakes	TRUE	1.00	1391.54	1.20	1391.74	20.00	57.03	20.00	20.08	J-2323	(N/A)	17.23	J-1198
712	J-409	Lakes	TRUE	1.00	1391.55	1.20	1391.75	20.00	48.47	20.00	20.08	J-2323	(N/A)	17.23	J-1198
6072	J-3256	Lakes	TRUE	1.00	1391.56	1.20	1391.76	20.00	56.77	20.00	20.08	J-2323	(N/A)	17.23	J-1198
6277	J-3379	Lakes	TRUE	1.00	1391.74	1.20	1391.94	20.00	38.38	20.00	20.06	J-2323	(N/A)	17.23	J-1198
6276	J-3378	Lakes	TRUE	1.00	1391.79	1.20	1391.99	20.00	37.67	20.00	20.05	J-2323	(N/A)	17.23	J-1198
7243	J-3931	Lakes	TRUE	1.00	1391.90	1.37	1392.27	20.00	30.82	20.00	20.04	J-2323	(N/A)	17.23	J-1198
7244	J-3932	Lakes	TRUE	1.00	1391.90	1.20	1392.10	20.00	30.82	20.00	20.04	J-2323	(N/A)	17.23	J-1198
713	J-410	Lakes	TRUE	1.00	1391.92	1.20	1392.12	20.00	53.15	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4027	J-2175	Forest	TRUE	1.00	1393.53	2.08	1394.61	20.00	20.01	20.00	24.26	J-1197	(N/A)	17.18	J-1198
8343	J-4173	Forest	TRUE	1.00	1398.54	1.68	1399.22	20.00	20.01	20.00	24.26	J-1197	(N/A)	17.18	J-1198
5619	J-2996	Forest	TRUE	1.00	1399.79	1.08	1399.87	20.00	20.01	20.00	20.33	J-1363	(N/A)	17.19	J-1198
7255	J-3938	Forest	TRUE	1.00	1400.50	1.08	1400.57	20.00	23.35	20.00	20.00	J-3063	(N/A)	17.20	J-1198
7254	J-3937	Forest	TRUE	1.00	1400.50	1.08	1400.57	20.00	23.35	20.00	20.00	J-3063	(N/A)	17.20	J-1198
2540	J-1363	Forest	TRUE	1.00	1402.70	1.28	1402.98	20.00	20.01	20.00	20.18	J-2996	(N/A)	17.19	J-1198
4747	J-2498	Forest	TRUE	1.00	1403.18	2.08	1404.26	20.00	20.01	20.00	20.33	J-2171	(N/A)	16.95	J-1198
5202	J-2756	Forest	TRUE	1.00	1406.06	1.88	1406.94	20.00	20.25	20.00	20.05	J-2755	(N/A)	17.20	J-1198
4022	J-2172	Forest	TRUE	1.00	1406.20	1.48	1406.68	20.00	33.20	20.00	20.00	J-2324	(N/A)	17.19	J-1198
6618	J-3579	Forest	TRUE	1.00	1406.21	2.08	1407.29	20.00	32.22	20.00	20.00	J-2324	(N/A)	17.19	J-1198
5201	J-2755	Forest	TRUE	1.00	1406.58	1.88	1407.46	20.00	20.00	20.00	20.59	J-2756	(N/A)	17.20	J-1198
4019	J-2171	Forest	TRUE	1.00	1407.13	1.88	1408.01	20.00	20.04	20.00	20.00	J-2498	(N/A)	16.95	J-1198
3971	J-2151	Forest	TRUE	1.00	1407.36	1.48	1407.84	20.00	20.00	20.00	20.30	J-3819	(N/A)	17.18	J-1198
6932	J-3765	Lakes	TRUE	1.00	1409.34	1.20	1409.54	20.00	26.58	20.00	20.08	J-2323	(N/A)	17.23	J-1198
1171	J-615	Lakes	TRUE	1.00	1409.68	1.81	1410.49	20.00	27.01	20.00	20.05	J-2323	(N/A)	17.23	J-1198
3456	J-1882	Forest	TRUE	1.00	1410.28	1.08	1410.35	20.00	20.00	20.00	21.59	J-2113	(N/A)	15.56	J-1198
6626	J-3584	Forest	TRUE	1.00	1410.96	2.28	1412.24	20.00	20.01	20.00	20.55	J-3585	(N/A)	17.18	J-1198
4335	J-2291	Forest	TRUE	1.00	1413.82	2.48	1415.30	20.00	20.00	20.00	24.17	J-1197	(N/A)	17.09	J-1198
6114	J-3281	Lakes	TRUE	1.00	1422.28	1.20	1422.48	20.00	20.00	20.00	20.14	J-2010	(N/A)	17.23	J-1198
6627	J-3585	Forest	TRUE	1.00	1422.67	1.48	1423.15	20.00	20.02	20.00	20.21	J-3584	(N/A)	17.18	J-1198
6113	J-3280	Lakes	TRUE	1.00	1422.69	1.20	1422.89	20.00	20.47	20.00	20.09	J-2010	(N/A)	17.23	J-1198
1914	J-998	Forest	TRUE	1.00	1423.03	2.28	1424.31	20.00	25.42	20.00	20.00	J-3585	(N/A)	17.18	J-1198
5343	J-2839	Forest	TRUE	1.00	1423.03	1.08	1423.11	20.00	20.02	20.00	20.52	J-2838	(N/A)	17.20	J-1198
5108	J-2704	Forest	TRUE	1.00	1423.03	1.48	1423.51	20.00	24.44	20.00	20.00	J-3585	(N/A)	17.18	J-1198
7295	J-3953	Forest	TRUE	1.00	1423.99	1.08	1424.07	20.00	20.02	20.00	20.65	J-1623	(N/A)	17.20	J-1198
4296	J-2280	Forest	TRUE	1.00	1424.18	1.28	1424.46	20.00	20.02	20.00	20.73	J-3964	(N/A)	17.20	J-1198
7194	J-3907	Lakes	TRUE	1.00	1425.29	1.20	1425.49	20.00	20.00	20.00	20.13	J-3906	(N/A)	17.23	J-1198
7193	J-3906	Lakes	TRUE	1.00	1426.41	1.20	1426.61	20.00	20.00	20.00	20.01	J-3907	(N/A)	17.23	J-1198
6205	J-3335	Lakes	TRUE	1.00	1426.42	1.20	1426.62	20.00	26.06	20.00	20.00	J-3906	(N/A)	17.23	J-1198
6206	J-3336	Lakes	TRUE	1.00	1426.42	1.20	1426.62	20.00	25.73	20.00	20.00	J-3906	(N/A)	17.23	J-1198
3019	J-1623	Forest	TRUE	1.00	1426.86	1.08	1426.93	20.00	20.44	20.00	20.03	J-3953	(N/A)	17.20	J-1198
6880	J-3734	Stewartsville	TRUE	1.00	1427.53	2.99	1429.52	20.00	20.01	20.00	20.62	J-1397	(N/A)	17.23	J-1198
7325	J-3964	Forest	TRUE	1.00	1428.10	1.08	1428.18	20.00	20.46	20.00	20.02	J-2280	(N/A)	17.20	J-1198
5342	J-2838	Forest	TRUE	1.00	1428.87	1.08	1428.94	20.00	20.10	20.00	20.05	J-2839	(N/A)	17.20	J-1198
1201	J-629	Lakes	TRUE	1.00	1429.68	1.20	1429.88	20.00	36.54	20.00	20.01	J-2323	(N/A)	17.23	J-1198
6251	J-3364	Lakes	TRUE	1.00	1429.69	1.20	1429.89	20.00	36.25	20.00	20.01	J-2323	(N/A)	17.23	J-1198
6011	J-3219	Forest	TRUE	1.00	1431.10	1.08	1431.18	20.00	21.10	20.00	20.00	J-3953	(N/A)	17.20	J-1198
6010	J-3218	Forest	TRUE	1.00	1431.10	1.88	1431.98	20.00	21.49	20.00	20.00	J-3953	(N/A)	17.20	J-1198
2599	J-1397	Stewartsville	TRUE	1.00	1432.69	3.34	1435.03	20.00	20.01	20.00	20.31	J-3734	(N/A)	17.23	J-1198
1892	J-984	Lakes	TRUE	1.00	1432.74	1.55	1433.29	20.00	20.00	20.00	26.13	J-1587	(N/A)	17.23	J-1198
2578	J-1385	Forest	TRUE	1.00	1434.62	2.08	1435.70	20.00	20.00	20.00	24.02	J-1197	(N/A)	16.95	J-1198
4957	J-2617	Forest	TRUE	1.00	1436.46	1.28	1436.74	20.00	31.66	20.00	20.00	J-3063	(N/A)	17.20	J-1198
4958	J-2618	Forest	TRUE	1.00	1436.46	1.28	1436.74	20.00	31.05	20.00	20.00	J-3063	(N/A)	17.20	J-1198
7814	J-4124	Forest	TRUE	1.00	1437.47	1.88	1438.35	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
3407	J-1853	Forest	TRUE	1.00	1437.50	1.08	1437.57	20.00	24.47	20.00	20.00	J-2113	(N/A)	15.51	J-1198
3787	J-2063	Forest	TRUE	1.00	1438.53	1.08	1438.61	20.00	20.03	20.00	24.26	J-1197	(N/A)	17.18	J-1198
4931	J-2602	Forest	TRUE	1.00	1440.72	1.08	1440.79	20.00	21.37	20.00	20.00	J-2280	(N/A)	17.20	J-1198
4930	J-2601	Forest	TRUE	1.00	1440.72	1.08	1440.79	20.00	21.80	20.00	20.00	J-2280	(N/A)	17.20	J-1198
5239	J-2778	Forest	TRUE	1.00	1442.98	1.28	1443.26	20.00	31.17	20.00	20.00	J-941	(N/A)	17.18	J-1198
5240	J-2779	Forest	TRUE	1.00	1442.98	1.48	1443.46	20.00	31.47	20.00	20.00	J-941	(N/A)	17.18	J-1198
3348	J-1822	Lakes	TRUE	1.00	1443.62	1.55	1444.17	20.00	20.00	20.00	22.51	J-1821	(N/A)	17.23	J-1198
4964	J-2621	Forest	TRUE	1.00	1446.51	1.28	1446.79	20.00	21.65	20.00	20.00	J-2840	(N/A)	17.19	J-1198
4965	J-2622	Forest	TRUE	1.00	1446.51	1.48	1446.99	20.00	21.78	20.00	20.00	J-2840	(N/A)	17.19	J-1198
4382	J-2307	Forest	TRUE	1.00	1446.97	2.08	1448.05	20.00	34.44	20.00	20.01	J-2324	(N/A)	17.19	J-1198
3076	J-1659	Forest	TRUE	1.00	1449.53	1.08	1449.61	20.00	20.02	20.00	20.25	J-1657	(N/A)	16.94	J-1198
4610	J-2422	Forest	TRUE	1.00	1449.71	1.88	1450.59	20.00	20.00	20.00	20.06	J-1704	(N/A)	17.18	J-1198
3074	J-1658	Forest	TRUE	1.00	1450.05	2.08	1451.14	20.00	20.00	20.00	20.22	J-1657	(N/A)	16.94	J-1198
294	J-151	Lakes	TRUE	1.00	1450.30	1.20	1450.49	20.00	43.78	20.00	20.05	J-2323	(N/A)	17.23	J-1198
293	J-150	Lakes	TRUE	1.00	1450.31	1.20	1450.50	20.00	43.64	20.00	20.05	J-2323	(N/A)	17.23	J-1198
4609	J-2421	Forest	TRUE	1.00	1451.19	1.68	1451.87	20.00	20.10	20.00	20.01	J-1704	(N/A)	17.18	J-1198
3073	J-1657	Forest	TRUE	1.00	1453.15	2.28	1454.44	20.00	20.00	20.00	20.09	J-1659	(N/A)	16.94	J-1198
605	J-346	Lakes	TRUE	1.00	1453.18	1.20	1453.38	20.00	44.46	20.00	20.05	J-2323	(N/A)	17.23	J-1198
5606	J-2989	Lakes	TRUE	1.00	1453.23	5.42	1457.64	20.00	43.90	20.00	20.05	J-2323	(N/A)	17.23	J-1198
3269	J-1777	Forest	TRUE	1.00	1453.49	1.08	1453.57	20.00	22.81	20.00	20.00	J-3953	(N/A)	17.20	J-1198
3270	J-1778	Forest	TRUE	1.00	1453.49	1.08	1453.57	20.00	21.36	20.00	20.00	J-3953	(N/A)	17.20	J-1198
2175	J-1157	Forest	TRUE	1.00	1456.95	1.48	1457.43	20.00	20.00	20.00	22.48	J-2913	(N/A)	17.20	J-1198
4161	J-2234	Forest	TRUE	1.00	1457.85	1.48	1458.33	20.00	40.13	20.00	20.00	J-2070	(N/A)	16.94	J-1198
6639	J-3592	Forest	TRUE	1.00	1457.85	1.48	1458.33	20.00	38.33	20.00	20.00	J-2070	(N/A)	16.94	J-1198
5364	J-2851	Forest	TRUE	1.00	1459.71	1.08	1459.79	20.00	20.01	20.00	20.13	J-1224	(N/A)	17.19	J-1198
7016	J-3813	Forest	TRUE	1.00	1460.31	1.08	1460.39	20.00	107.73	20.00	20.00	J-3438	(N/A)	17.19	J-1198
1212	J-635	Forest	TRUE	1.00	1460.31	1.08	1460.39	20.00	111.73	20.00	20.00	J-3438	(N/A)	17.19	J-1198
4479	J-2346	Forest	TRUE	1.00	1460.70	1.88	1461.58	20.00	20.02	20.00	20.05	J-3871	(N/A)	17.18	J-1198
7120	J-3871	Forest	TRUE	1.00	1460.78	1.08	1460.85	20.00	20.00	20.00	20.06	J-2345	(N/A)	17.18	J-1198
4478	J-2345	Forest	TRUE	1.00	1461.33	1.88	1462.21	20.00	20.02	20.00	20.01	J-3871	(N/A)	17.18	J-1198
2287	J-1224	Forest	TRUE	1.00	1461.34	2.08	1462.42	20.00	20.00	20.00	20.36	J-2851	(N/A)	17.19	J-1198
7682	J-4086	Lakes	TRUE	1.00	1462.22	1.29	1462.51	20.00	20.00	20.00	21.68	J-3250	(N/A)	17.23	J-1198
7878	J-4137	Forest	TRUE	1.00	1463.18	1.88	1464.06	20.00	20.01	20.00	21.60	J-1370	(N/A)	17.20	J-1198
1777	J-910	Forest	TRUE	1.00	1464.27	1.88	1465.15	20.00	24.76	20.00	20.00	J-858	(N/A)	17.18	J-1198
5717	J-3054	Forest	TRUE	1.00	1466.36	2.08	1467.45	20.00	20.01	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5138	J-2720	Forest	TRUE	1.00	1474.52	1.08	1474.59	20.00	20.44	20.00	20.03	J-1370	(N/A)	17.20	J-1198
4551	J-2387	Forest	TRUE	1.00	1476.57	1.08	1476.65	20.00	20.12	20.00	20.05	J-3942	(N/A)	17.18	J-1198
7380	J-3985	Forest	TRUE	1.00	1477.41	2.08	1478.49	20.00	20.17	20.00	20.05	J-3986	(N/A)	17.20	J-1198
3347	J-1821	Lakes	TRUE	1.00	1477.43	1.72	1478.14	20.00	20.65	20.00	20.04	J-1822	(N/A)	17.23	J-1198
2745	J-1483	Forest	TRUE	1.00	1477.51	2.08	1478.59	20.00	20.12	20.00	20.05	J-3004	(N/A)	17.19	J-1198
4866	J-2564	Forest	TRUE	1.00	1478.24	1.48	1478.72	20.00	20.02	20.00	20.48	J-1709	(N/A)	17.18	J-1198
2538	J-1362	Stewartsville	TRUE	1.00	1480.31	1.26	1480.57	20.00	20.03	20.00	28.65	J-676	(N/A)	17.23	J-1198
1290	J-670	Lakes	TRUE	1.00	1481.68	1.20	1481.88	20.00	51.84	20.00	20.04	J-2323	(N/A)	17.23	J-1198
6269	J-3374	Lakes	TRUE	1.00	1481.69	1.20	1481.89	20.00	50.95	20.00	20.04	J-2323	(N/A)	17.23	J-1198
5697	J-3042	Forest	TRUE	1.00	1481.93	1.48	1482.40	20.00	20.00	20.00	20.58	J-996	(N/A)	17.02	J-1198
7196	J-3908	Forest	TRUE	1.00	1482.78	1.08	1482.86	20.00	20.03	20.00	20.19	J-3909	(N/A)	17.18	J-1198
7197	J-3909	Forest	TRUE	1.00	1482.96	1.08	1483.04	20.00	20.03	20.00	20.01	J-3908	(N/A)	17.18	J-1198
3157	J-1709	Forest	TRUE	1.00	1483.35	1.68	1484.03	20.00	20.13	20.00	20.04	J-2564	(N/A)	17.18	J-1198
6226	J-3348	Lakes	TRUE	1.00	1484.05	1.20	1484.25	20.00	20.00	20.00	20.12	J-3906	(N/A)	17.23	J-1198
7693	J-4090	Forest	TRUE	1.00	1484.29	1.08	1484.36	20.00	20.02	20.00	20.44	J-4089	(N/A)	17.20	J-1198
6225	J-3347	Lakes	TRUE	1.00	1484.62	1.20	1484.82	20.00	20.95	20.00	20.06	J-3906	(N/A)	17.23	J-1198
7481	J-4022	Forest	TRUE	1.00	1485.10	2.28	1486.38	20.00	20.32	20.00	20.04	J-1370	(N/A)	17.20	J-1198
3038	J-1634	Forest	TRUE	1.00	1485.15	1.08	1485.23	20.00	20.00	20.00	20.17	J-1635	(N/A)	17.13	J-1198
3807	J-2073	Forest	TRUE	1.00	1485.31	1.88	1486.19	20.00	26.15	20.00	20.00	J-2072	(N/A)	17.10	J-1198
7058	J-3836	Forest	TRUE	1.00	1485.31	1.28	1485.59	20.00	23.05	20.00	20.00	J-2072	(N/A)	17.10	J-1198
5504	J-2930	Forest	TRUE	1.00	1485.50	2.48	1486.99	20.00	20.04	20.00	20.61	J-1672	(N/A)	17.08	J-1198
6061	J-3249	Lakes	TRUE	1.00	1486.06	1.63	1486.69	20.00	20.00	20.00	20.62	J-3250	(N/A)	17.23	J-1198
6779	J-3674	Forest	TRUE	1.00	1486.26	1.08	1486.34	20.00	20.22	20.00	20.03	J-3675	(N/A)	17.18	J-1198
3097	J-1672	Forest	TRUE	1.00	1486.48	1.48	1486.95	20.00	20.00	20.00	20.39	J-2930	(N/A)	17.08	J-1198
7661	J-4081	Forest	TRUE	1.00	1486.77	3.29	1489.05	20.00	21.46	20.00	20.00	J-3675	(N/A)	17.18	J-1198
3039	J-1635	Forest	TRUE	1.00	1487.90	1.28	1488.17	20.00	20.00	20.00	20.03	J-1634	(N/A)	17.13	J-1198
3408	J-1854	Forest	TRUE	1.00	1487.91	1.28	1488.19	20.00	25.86	20.00	20.00	J-2113	(N/A)	15.40	J-1198
6956	J-3778	Forest	TRUE	1.00	1487.91	1.68	1488.59	20.00	24.97	20.00	20.00	J-2113	(N/A)	15.40	J-1198
7543	J-4045	Forest	TRUE	1.00	1488.12	1.08	1488.20	20.00	20.03	20.00	20.39	J-2564	(N/A)	17.18	J-1198
5472	J-2913	Forest	TRUE	1.00	1488.41	1.08	1488.48	20.00	20.00	20.00	20.58	J-1883	(N/A)	17.19	J-1198
3096	J-1671	Forest	TRUE	1.00	1488.45	1.48	1488.92	20.00	20.24	20.00	20.10	J-2930	(N/A)	17.08	J-1198
4925	J-2598	Forest	TRUE	1.00	1489.35	1.08	1489.43	20.00	38.65	20.00	20.00	J-3953	(N/A)	17.20	J-1198
4926	J-2599	Forest	TRUE	1.00	1489.35	1.08	1489.43	20.00	38.28	20.00	20.00	J-3953	(N/A)	17.20	J-1198
5835	J-3121	Forest	TRUE	1.00	1489.45	1.08	1489.53	20.00	21.48	20.00	20.00	J-2280	(N/A)	17.20	J-1198
5836	J-3122	Forest	TRUE	1.00	1489.45	1.08	1489.53	20.00	20.92	20.00	20.00	J-2280	(N/A)	17.20	J-1198
7692	J-4089	Forest	TRUE	1.00	1490.68	1.48	1491.15	20.00	20.01	20.00	20.24	J-4116	(N/A)	17.20	J-1198
4083	J-2201	Forest	TRUE	1.00	1490.81	1.68	1491.49	20.00	24.72	20.00	20.00	J-2200	(N/A)	17.10	J-1198
5685	J-3035	Forest	TRUE	1.00	1490.81	2.08	1491.90	20.00	24.46	20.00	20.00	J-2200	(N/A)	17.10	J-1198
1670	J-840	Stewartsville	TRUE	1.00	1491.79	1.26	1492.05	20.00	25.32	20.00	20.05	J-2326	(N/A)	17.23	J-1198
3819	J-2078	Stewartsville	TRUE	1.00	1492.17	2.41	1493.58	20.00	32.79	20.00	20.00	J-2326	(N/A)	17.23	J-1198
7188	J-3904	Forest	TRUE	1.00	1492.42	1.08	1492.49	20.00	20.02	20.00	20.63	J-2910	(N/A)	16.93	J-1198
5703	J-3046	Forest	TRUE	1.00	1492.59	1.28	1492.87	20.00	24.65	20.00	20.00	J-3063	(N/A)	17.20	J-1198
7272	J-3945	Forest	TRUE	1.00	1492.59	2.08	1493.67	20.00	24.39	20.00	20.00	J-3063	(N/A)	17.20	J-1198
5702	J-3045	Forest	TRUE	1.00	1492.59	1.28	1492.87	20.00	24.17	20.00	20.00	J-3063	(N/A)	17.20	J-1198
1911	J-996	Forest	TRUE	1.00	1492.97	2.08	1494.05	20.00	20.03	20.00	20.00	J-3042	(N/A)	17.02	J-1198
3156	J-1708	Forest	TRUE	1.00	1493.25	1.08	1493.32	20.00	20.10	20.00	20.04	J-2564	(N/A)	17.18	J-1198
6483	J-3499	Forest	TRUE	1.00	1493.44	1.08	1493.52	20.00	44.70	20.00	20.00	J-3090	(N/A)	16.93	J-1198
6484	J-3500	Forest	TRUE	1.00	1493.44	1.08	1493.52	20.00	44.91	20.00	20.00	J-3090	(N/A)	16.93	J-1198
7784	J-4116	Forest	TRUE	1.00	1494.19	1.28	1494.47	20.00	20.02	20.00	23.22	J-4089	(N/A)	17.20	J-1198
5465	J-2909	Forest	TRUE	1.00	1494.31	1.68	1494.99	20.00	20.17	20.00	20.04	J-3904	(N/A)	16.93	J-1198
5466	J-2910	Forest	TRUE	1.00	1494.38	1.68	1495.06	20.00	20.51	20.00	20.04	J-3904	(N/A)	16.93	J-1198
4157	J-2232	Stewartsville	TRUE	1.00	1495.21	1.69	1495.90	20.00	30.75	20.00	20.00	J-1022	(N/A)	17.23	J-1198
5437	J-2893	Stewartsville	TRUE	1.00	1495.21	1.40	1495.61	20.00	29.77	20.00	20.00	J-1022	(N/A)	17.23	J-1198
3458	J-1883	Forest	TRUE	1.00	1495.54	1.08	1495.62	20.00	20.13	20.00	20.04	J-2913	(N/A)	17.19	J-1198
1846	J-954	Forest	TRUE	1.00	1495.62	1.08	1495.69	20.00	20.01	20.00	20.59	J-1787	(N/A)	17.20	J-1198
3490	J-1902	Forest	TRUE	1.00	1497.27	1.48	1497.75	20.00	20.01	20.00	21.56	J-2280	(N/A)	17.20	J-1198
6391	J-3446	Forest	TRUE	1.00	1498.18	1.08	1498.26	20.00	20.00	20.00	21.05	J-3447	(N/A)	17.19	J-1198
5290	J-2807	Forest	TRUE	1.00	1499.60	1.28	1499.88	20.00	20.00	20.00	20.21	J-1787	(N/A)	17.20	J-1198
6062	J-3250	Lakes	TRUE	1.00	1499.76	1.20	1499.96	20.00	20.00	20.00	20.00	J-3249	(N/A)	17.23	J-1198
5858	J-3134	Forest	TRUE	1.00	1500.05	1.48	1500.53	20.00	96.68	20.00	20.00	J-3438	(N/A)	17.19	J-1198
1211	J-634	Forest	TRUE	1.00	1500.05	1.08	1500.12	20.00	96.93	20.00	20.00	J-3438	(N/A)	17.19	J-1198
3924	J-2129	Forest	TRUE	1.00	1500.52	1.88	1501.40	20.00	26.03	20.00	20.00	J-2002	(N/A)	17.17	J-1198
5470	J-2912	Forest	TRUE	1.00	1500.53	1.88	1501.41	20.00	25.26	20.00	20.00	J-2002	(N/A)	17.17	J-1198
7861	J-4133	Forest	TRUE	1.00	1500.66	2.08	1501.74	20.00	28.23	20.00	20.00	J-2766	(N/A)	17.18	J-1198
3285	J-1787	Forest	TRUE	1.00	1501.82	2.68	1503.50	20.00	20.00	20.00	20.23	J-2807	(N/A)	17.20	J-1198
4319	J-2286	Lakes	TRUE	1.00	1502.85	1.20	1503.05	20.00	20.00	20.00	20.21	J-3250	(N/A)	17.23	J-1198
8297	J-4172	Forest	TRUE	1.00	1502.96	2.28	1504.24	20.00	20.02	20.00	24.04	J-3204	(N/A)	17.18	J-1198
2935	J-1587	Lakes	TRUE	1.00	1503.52	1.20	1503.72	20.00	20.00	20.00	25.51	J-1304	(N/A)	17.23	J-1198
3401	J-1850	Forest	TRUE	1.00	1505.06	1.48	1505.53	20.00	57.44	20.00	20.00	J-1197	(N/A)	12.92	J-1198
2292	J-1227	Forest	TRUE	1.00	1505.10	1.28	1505.38	20.00	53.62	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5496	J-2926	Forest	TRUE	1.00	1505.10	1.28	1505.38	20.00	52.92	20.00	20.00	J-1197	(N/A)	12.92	J-1198
4888	J-2577	Forest	TRUE	1.00	1508.02	1.08	1508.09	20.00	43.43	20.00	20.00	J-3063	(N/A)	17.20	J-1198
4889	J-2578	Forest	TRUE	1.00	1508.02	1.28	1508.30	20.00	42.96	20.00	20.00	J-3063	(N/A)	17.20	J-1198
1289	J-669	Lakes	TRUE	1.00	1508.42	1.20	1508.62	20.00	45.05	20.00	20.06	J-2323	(N/A)	17.23	J-1198
5915	J-3165	Lakes	TRUE	1.00	1508.47	1.20	1508.67	20.00	44.49	20.00	20.05	J-2323	(N/A)	17.23	J-1198
6022	J-3225	Forest	TRUE	1.00	1509.44	1.28	1509.72	20.00	20.01	20.00	20.59	J-2220	(N/A)	17.17	J-1198
2924	J-1582	Forest	TRUE	1.00	1511.44	2.68	1513.13	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
4784	J-2518	Forest	TRUE	1.00	1511.82	1.88	1512.70	20.00	20.00	20.00	20.39	J-2099	(N/A)	16.92	J-1198
6392	J-3447	Forest	TRUE	1.00	1513.02	2.28	1514.30	20.00	20.31</						

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3863	J-2099	Forest	TRUE	1.00	1520.59	1.68	1521.27	20.00	20.01	20.00	20.00	J-2518	(N/A)	16.92	J-1198
3489	J-1901	Forest	TRUE	1.00	1521.11	1.08	1521.19	20.00	23.47	20.00	20.00	J-2280	(N/A)	17.20	J-1198
4139	J-2225	Forest	TRUE	1.00	1522.43	1.28	1522.71	20.00	20.77	20.00	20.10	J-3068	(N/A)	16.92	J-1198
6854	J-3718	Forest	TRUE	1.00	1524.34	2.48	1525.82	20.00	20.00	20.00	20.66	J-2153	(N/A)	17.20	J-1198
4118	J-2215	Forest	TRUE	1.00	1525.83	2.48	1527.32	20.00	47.46	20.00	20.00	J-3200	(N/A)	17.18	J-1198
6347	J-3420	Forest	TRUE	1.00	1526.76	1.68	1527.44	20.00	20.00	20.00	20.58	J-899	(N/A)	17.20	J-1198
3878	J-2107	Forest	TRUE	1.00	1527.01	2.08	1528.09	20.00	20.19	20.00	20.03	J-2951	(N/A)	17.17	J-1198
6862	J-3723	Forest	TRUE	1.00	1527.55	1.28	1527.83	20.00	20.02	20.00	20.31	J-3722	(N/A)	17.18	J-1198
3193	J-1730	Forest	TRUE	1.00	1527.85	1.08	1527.92	20.00	20.01	20.00	20.25	J-1731	(N/A)	17.20	J-1198
6850	J-3716	Forest	TRUE	1.00	1528.25	1.88	1529.13	20.00	20.00	20.00	21.06	J-2223	(N/A)	17.20	J-1198
6861	J-3722	Forest	TRUE	1.00	1530.48	1.08	1530.56	20.00	20.02	20.00	20.77	J-3723	(N/A)	17.18	J-1198
1758	J-898	Forest	TRUE	1.00	1531.74	2.28	1533.02	20.00	20.61	20.00	20.06	J-899	(N/A)	17.20	J-1198
2575	J-1383	Forest	TRUE	1.00	1531.93	4.29	1535.22	20.00	20.86	20.00	20.00	J-1382	(N/A)	17.17	J-1198
2192	J-1168	Forest	TRUE	1.00	1532.05	1.88	1532.93	20.00	21.51	20.00	20.00	J-1167	(N/A)	17.19	J-1198
3974	J-2153	Forest	TRUE	1.00	1533.77	1.88	1534.65	20.00	20.00	20.00	20.32	J-3718	(N/A)	17.20	J-1198
5984	J-3204	Forest	TRUE	1.00	1534.09	1.08	1534.17	20.00	20.00	20.00	20.73	J-3203	(N/A)	17.17	J-1198
2795	J-1513	Forest	TRUE	1.00	1535.18	1.08	1535.26	20.00	20.01	20.00	20.63	J-1714	(N/A)	16.92	J-1198
4410	J-2316	Forest	TRUE	1.00	1535.72	4.29	1539.01	20.00	23.48	20.00	20.00	J-4124	(N/A)	17.17	J-1198
7476	J-4020	Stewartsville	TRUE	1.00	1536.02	4.28	1539.30	20.00	20.00	20.00	21.42	J-2374	(N/A)	17.23	J-1198
6719	J-3639	Forest	TRUE	1.00	1537.49	1.08	1537.57	20.00	20.01	20.00	20.29	J-1714	(N/A)	16.92	J-1198
1257	J-653	Lakes	TRUE	1.00	1538.04	1.20	1538.24	20.00	44.80	20.00	20.06	J-2323	(N/A)	17.23	J-1198
6271	J-3375	Lakes	TRUE	1.00	1538.14	1.20	1538.34	20.00	43.63	20.00	20.05	J-2323	(N/A)	17.23	J-1198
3721	J-2030	Forest	TRUE	1.00	1538.29	1.88	1539.17	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
3166	J-1714	Forest	TRUE	1.00	1539.48	1.28	1539.76	20.00	20.01	20.00	20.10	J-1513	(N/A)	16.92	J-1198
4136	J-2223	Forest	TRUE	1.00	1539.68	2.48	1541.16	20.00	20.14	20.00	20.06	J-3716	(N/A)	17.20	J-1198
5654	J-3017	Forest	TRUE	1.00	1539.90	1.48	1540.38	20.00	21.68	20.00	20.00	J-1167	(N/A)	17.19	J-1198
5655	J-3018	Forest	TRUE	1.00	1539.90	1.48	1540.38	20.00	21.24	20.00	20.00	J-1167	(N/A)	17.19	J-1198
3436	J-1870	Forest	TRUE	1.00	1541.29	2.88	1543.18	20.00	20.00	20.00	20.39	J-1635	(N/A)	17.13	J-1198
4529	J-2374	Stewartsville	TRUE	1.00	1542.69	1.11	1542.81	20.00	20.40	20.00	20.08	J-4020	(N/A)	17.23	J-1198
4530	J-2375	Stewartsville	TRUE	1.00	1542.72	1.11	1542.84	20.00	20.69	20.00	20.08	J-4020	(N/A)	17.23	J-1198
7060	J-3837	Forest	TRUE	1.00	1543.12	1.68	1543.80	20.00	20.00	20.00	22.23	J-2208	(N/A)	17.09	J-1198
7860	J-4132	Forest	TRUE	1.00	1543.59	1.88	1544.47	20.00	23.63	20.00	20.00	J-3585	(N/A)	17.18	J-1198
4054	J-2186	Forest	TRUE	1.00	1545.19	1.88	1546.07	20.00	26.15	20.00	20.01	J-3174	(N/A)	17.17	J-1198
3424	J-1863	Forest	TRUE	1.00	1547.74	1.28	1548.02	20.00	27.80	20.00	20.00	J-2113	(N/A)	15.28	J-1198
4000	J-2163	Forest	TRUE	1.00	1548.95	1.48	1549.43	20.00	20.00	20.00	21.21	J-1704	(N/A)	17.17	J-1198
6153	J-3304	Forest	TRUE	1.00	1549.18	1.68	1549.86	20.00	20.00	20.00	20.93	J-2048	(N/A)	17.17	J-1198
5448	J-2899	Forest	TRUE	1.00	1549.79	1.48	1550.27	20.00	20.01	20.00	20.78	J-1511	(N/A)	17.18	J-1198
6791	J-3682	Lakes	TRUE	1.00	1550.71	1.20	1550.91	20.00	20.28	20.00	20.01	J-1586	(N/A)	17.23	J-1198
6790	J-3681	Lakes	TRUE	1.00	1551.21	1.20	1551.41	20.00	20.58	20.00	20.00	J-1586	(N/A)	17.23	J-1198
6565	J-3548	Forest	TRUE	1.00	1553.89	1.08	1553.97	20.00	71.49	20.00	20.00	J-3438	(N/A)	17.19	J-1198
1293	J-672	Forest	TRUE	1.00	1553.89	1.08	1553.97	20.00	72.18	20.00	20.00	J-3438	(N/A)	17.19	J-1198
5598	J-2984	Forest	TRUE	1.00	1554.57	1.68	1555.25	20.00	23.14	20.00	20.00	J-4154	(N/A)	17.17	J-1198
5599	J-2985	Forest	TRUE	1.00	1554.57	1.88	1555.45	20.00	22.53	20.00	20.00	J-4154	(N/A)	17.17	J-1198
5983	J-3203	Forest	TRUE	1.00	1554.74	1.48	1555.22	20.00	20.09	20.00	20.02	J-3204	(N/A)	17.17	J-1198
3929	J-2132	Forest	TRUE	1.00	1555.56	2.48	1557.04	20.00	23.06	20.00	20.00	J-4154	(N/A)	17.17	J-1198
2791	J-1511	Forest	TRUE	1.00	1555.67	1.08	1555.75	20.00	20.28	20.00	20.05	J-2899	(N/A)	17.18	J-1198
7721	J-4098	Forest	TRUE	1.00	1556.11	1.88	1556.99	20.00	20.01	20.00	20.65	J-3008	(N/A)	17.19	J-1198
2562	J-1376	Forest	TRUE	1.00	1556.86	1.48	1557.34	20.00	20.00	20.00	20.70	J-1249	(N/A)	17.10	J-1198
5639	J-3008	Forest	TRUE	1.00	1557.04	1.08	1557.11	20.00	20.00	20.00	20.93	J-3007	(N/A)	17.19	J-1198
3754	J-2048	Forest	TRUE	1.00	1559.51	2.28	1560.79	20.00	20.29	20.00	20.03	J-3304	(N/A)	17.17	J-1198
3680	J-2007	Forest	TRUE	1.00	1560.49	1.48	1560.97	20.00	21.90	20.00	20.04	J-2208	(N/A)	17.09	J-1198
3984	J-2156	Forest	TRUE	1.00	1562.18	2.88	1564.06	20.00	20.00	20.00	21.32	J-2131	(N/A)	17.17	J-1198
3843	J-2090	Forest	TRUE	1.00	1562.48	1.48	1562.96	20.00	20.00	20.00	23.87	J-2987	(N/A)	17.17	J-1198
6248	J-3362	Forest	TRUE	1.00	1562.56	1.28	1562.84	20.00	20.00	20.00	21.48	J-3363	(N/A)	17.17	J-1198
3143	J-1701	Forest	TRUE	1.00	1563.68	1.88	1564.56	20.00	20.00	20.00	20.46	J-1700	(N/A)	17.17	J-1198
5452	J-2901	Forest	TRUE	1.00	1564.73	1.08	1564.81	20.00	20.00	20.00	20.69	J-1650	(N/A)	17.17	J-1198
4061	J-2189	Forest	TRUE	1.00	1567.21	1.48	1567.69	20.00	27.15	20.00	20.00	J-4154	(N/A)	17.17	J-1198
6559	J-3544	Forest	TRUE	1.00	1567.47	3.89	1570.36	20.00	22.83	20.00	20.00	J-1382	(N/A)	17.17	J-1198
6560	J-3545	Forest	TRUE	1.00	1567.47	1.28	1567.75	20.00	22.01	20.00	20.00	J-1382	(N/A)	17.17	J-1198
594	J-340	Lakes	TRUE	1.00	1567.51	1.20	1567.70	20.00	50.16	20.00	20.04	J-2323	(N/A)	17.23	J-1198
6265	J-3372	Lakes	TRUE	1.00	1567.54	1.20	1567.74	20.00	48.63	20.00	20.04	J-2323	(N/A)	17.23	J-1198
5638	J-3007	Forest	TRUE	1.00	1568.89	1.48	1569.37	20.00	20.35	20.00	20.02	J-3008	(N/A)	17.19	J-1198
5446	J-2898	Forest	TRUE	1.00	1568.89	1.28	1569.17	20.00	20.09	20.00	20.06	J-887	(N/A)	17.19	J-1198
2260	J-1208	Forest	TRUE	1.00	1569.22	2.08	1570.30	20.00	20.72	20.00	20.03	J-887	(N/A)	17.19	J-1198
6099	J-3272	Forest	TRUE	1.00	1570.67	1.08	1570.75	20.00	20.00	20.00	20.37	J-2146	(N/A)	17.17	J-1198
356	J-191	Lakes	TRUE	1.00	1571.07	1.20	1571.27	20.00	48.88	20.00	20.04	J-2323	(N/A)	17.23	J-1198
355	J-190	Lakes	TRUE	1.00	1571.08	1.20	1571.28	20.00	48.73	20.00	20.04	J-2323	(N/A)	17.23	J-1198
3062	J-1650	Forest	TRUE	1.00	1571.45	1.08	1571.53	20.00	20.00	20.00	20.22	J-2901	(N/A)	17.17	J-1198
3779	J-2059	Forest	TRUE	1.00	1575.00	5.50	1579.49	20.00	20.00	20.00	24.15	J-1197	(N/A)	17.07	J-1198
2348	J-1259	Forest	TRUE	1.00	1575.35	1.08	1575.42	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.17	J-1198
8459	J-4181	Forest	TRUE	1.00	1575.35	1.08	1575.42	20.00	20.00	20.00	20.00	J-4182	(N/A)	17.17	J-1198
8461	J-4182	Forest	TRUE	1.00	1575.35	1.08	1575.42	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.17	J-1198
8457	J-4180	Forest	TRUE	1.00	1575.35	1.08	1575.42	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.17	J-1198
8471	J-4187	Forest	TRUE	1.00	1575.35	1.08	1575.42	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.17	J-1198
3061	J-1649	Forest	TRUE	1.00	1576.13	1.08	1576.21	20.00	20.24	20.00	20.00	J-2901	(N/A)	17.17	J-1198
2158	J-1146	Forest	TRUE	1.00	1576.91	1.08	1576.99	20.00	20.00	20.00	20.57	J-2887	(N/A)	17.17	J-1198
5426	J-2887	Forest	TRUE	1.00	1577.15	1.08	1577.22	20.00	20.00	20.00	20.62	J-1770	(N/A)	17.17	J-1198
6550	J-3538	Forest	TRUE	1.00	1577.45	2.68	1579.13	20.00	33.40	20.00	20.01	J-2366	(N/A)	17.17	J-1198
6551	J-3539	Forest	TRUE	1.00	1577.47	1.68	1578.15	20.00	32.66	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7160	J-3893	Forest	TRUE	1.00	1586.32	1.08	1586.40	20.00	29.31	20.00	20.00	J-1512	(N/A)	17.19	J-1198
3527	J-1923	Forest	TRUE	1.00	1586.32	1.28	1586.60	20.00	29.09	20.00	20.00	J-1512	(N/A)	17.19	J-1198
6526	J-3524	Forest	TRUE	1.00	1586.32	2.48	1587.80	20.00	28.56	20.00	20.00	J-1512	(N/A)	17.19	J-1198
3528	J-1924	Forest	TRUE	1.00	1586.33	1.48	1586.81	20.00	24.83	20.00	20.00	J-1512	(N/A)	17.19	J-1198
6322	J-3405	Forest	TRUE	1.00	1588.18	1.08	1588.26	20.00	20.00	20.00	20.08	J-1512	(N/A)	17.19	J-1198
6146	J-3300	Forest	TRUE	1.00	1590.51	1.48	1590.99	20.00	20.00	20.00	20.45	J-1845	(N/A)	17.17	J-1198
3393	J-1846	Forest	TRUE	1.00	1591.10	1.48	1591.57	20.00	20.00	20.00	20.63	J-1521	(N/A)	17.17	J-1198
6234	J-3353	Lakes	TRUE	1.00	1591.88	1.20	1592.08	20.00	21.88	20.00	20.04	J-3906	(N/A)	17.23	J-1198
6233	J-3352	Lakes	TRUE	1.00	1592.22	1.20	1592.42	20.00	22.43	20.00	20.00	J-3906	(N/A)	17.23	J-1198
2889	J-1565	Forest	TRUE	1.00	1592.72	2.08	1593.80	20.00	20.36	20.00	20.00	J-3362	(N/A)	17.17	J-1198
3290	J-1790	Forest	TRUE	1.00	1594.72	1.28	1594.99	20.00	20.00	20.00	21.41	J-1789	(N/A)	17.17	J-1198
6220	J-3344	Forest	TRUE	1.00	1596.83	1.48	1597.31	20.00	20.00	20.00	20.70	J-1398	(N/A)	17.07	J-1198
1840	J-950	Forest	TRUE	1.00	1598.03	1.48	1598.50	20.00	20.00	20.00	21.43	J-951	(N/A)	17.00	J-1198
3392	J-1845	Forest	TRUE	1.00	1601.00	1.08	1601.08	20.00	20.00	20.00	20.25	J-3300	(N/A)	17.17	J-1198
1245	J-650	Lakes	TRUE	1.00	1601.40	1.20	1601.60	20.00	49.36	20.00	20.04	J-2323	(N/A)	17.23	J-1198
5331	J-2832	Lakes	TRUE	1.00	1601.42	1.20	1601.62	20.00	48.96	20.00	20.04	J-2323	(N/A)	17.23	J-1198
2601	J-1398	Forest	TRUE	1.00	1601.87	1.68	1602.55	20.00	20.00	20.00	20.08	J-3344	(N/A)	17.07	J-1198
3561	J-1942	Forest	TRUE	1.00	1605.02	1.48	1605.50	20.00	20.00	20.00	22.23	J-1197	(N/A)	15.15	J-1198
4828	J-2542	Forest	TRUE	1.00	1605.36	1.28	1605.64	20.00	24.60	20.00	20.01	J-3174	(N/A)	17.17	J-1198
4829	J-2543	Forest	TRUE	1.00	1605.41	1.48	1605.89	20.00	23.98	20.00	20.00	J-3174	(N/A)	17.17	J-1198
1292	J-671	Forest	TRUE	1.00	1607.25	1.08	1607.32	20.00	76.61	20.00	20.00	J-3438	(N/A)	17.18	J-1198
6591	J-3563	Forest	TRUE	1.00	1607.25	1.08	1607.32	20.00	75.89	20.00	20.00	J-3438	(N/A)	17.18	J-1198
5874	J-3143	Forest	TRUE	1.00	1615.04	1.08	1615.11	20.00	20.00	20.00	20.81	J-1904	(N/A)	17.17	J-1198
4516	J-2367	Forest	TRUE	1.00	1615.45	1.88	1616.33	20.00	20.12	20.00	20.06	J-1470	(N/A)	17.17	J-1198
5234	J-2775	Forest	TRUE	1.00	1616.02	1.28	1616.30	20.00	20.47	20.00	20.05	J-3722	(N/A)	17.18	J-1198
2724	J-1470	Forest	TRUE	1.00	1616.03	2.68	1617.72	20.00	20.01	20.00	20.33	J-1471	(N/A)	17.17	J-1198
3119	J-1686	Forest	TRUE	1.00	1616.55	1.08	1616.63	20.00	21.41	20.00	20.00	J-3722	(N/A)	17.18	J-1198
3120	J-1687	Forest	TRUE	1.00	1616.55	1.08	1616.63	20.00	20.95	20.00	20.00	J-3722	(N/A)	17.18	J-1198
6362	J-3429	Forest	TRUE	1.00	1617.71	3.09	1619.79	20.00	20.00	20.00	20.75	J-2204	(N/A)	17.17	J-1198
7069	J-3842	Forest	TRUE	1.00	1618.67	2.68	1620.36	20.00	20.00	20.00	22.26	J-3546	(N/A)	17.17	J-1198
4936	J-2605	Forest	TRUE	1.00	1619.83	1.28	1620.11	20.00	21.31	20.00	20.00	J-3204	(N/A)	17.17	J-1198
4937	J-2606	Forest	TRUE	1.00	1619.84	1.08	1619.91	20.00	20.90	20.00	20.00	J-3204	(N/A)	17.17	J-1198
3907	J-2121	Forest	TRUE	1.00	1623.08	2.28	1624.36	20.00	20.00	20.00	24.16	J-1197	(N/A)	17.09	J-1198
2487	J-1334	Forest	TRUE	1.00	1623.35	1.08	1623.43	20.00	29.90	20.00	20.00	J-1446	(N/A)	17.18	J-1198
6319	J-3403	Forest	TRUE	1.00	1623.35	1.28	1623.63	20.00	29.24	20.00	20.00	J-1446	(N/A)	17.18	J-1198
6802	J-3688	Forest	TRUE	1.00	1625.22	2.88	1627.10	20.00	20.02	20.00	20.91	J-3174	(N/A)	17.17	J-1198
7819	J-4125	Forest	TRUE	1.00	1625.55	2.28	1626.83	20.00	22.01	20.00	20.00	J-3174	(N/A)	17.17	J-1198
6020	J-3224	Forest	TRUE	1.00	1626.40	1.08	1626.47	20.00	51.04	20.00	20.00	J-3200	(N/A)	17.18	J-1198
6019	J-3223	Forest	TRUE	1.00	1626.40	1.08	1626.47	20.00	51.48	20.00	20.00	J-3200	(N/A)	17.18	J-1198
3786	J-2062	Forest	TRUE	1.00	1628.62	1.28	1628.90	20.00	21.00	20.00	20.00	J-2951	(N/A)	17.17	J-1198
3646	J-1988	Forest	TRUE	1.00	1629.17	1.48	1629.65	20.00	64.79	20.00	20.00	J-2045	(N/A)	14.69	J-1198
1752	J-894	Forest	TRUE	1.00	1629.31	1.88	1630.19	20.00	21.12	20.00	20.00	J-895	(N/A)	17.20	J-1198
6442	J-3476	Forest	TRUE	1.00	1629.98	1.68	1630.66	20.00	20.00	20.00	21.52	J-2216	(N/A)	17.17	J-1198
4244	J-2262	Forest	TRUE	1.00	1630.14	3.49	1632.62	20.00	24.71	20.00	20.00	J-2261	(N/A)	17.08	J-1198
4923	J-2597	Forest	TRUE	1.00	1630.14	1.08	1630.21	20.00	24.47	20.00	20.00	J-2261	(N/A)	17.08	J-1198
3533	J-1926	Forest	TRUE	1.00	1632.31	1.48	1632.79	20.00	23.02	20.00	20.00	J-3174	(N/A)	17.17	J-1198
7501	J-4028	Forest	TRUE	1.00	1632.45	3.09	1634.54	20.00	29.38	20.00	20.00	J-858	(N/A)	17.17	J-1198
5623	J-2998	Forest	TRUE	1.00	1632.48	1.88	1633.36	20.00	24.13	20.00	20.00	J-858	(N/A)	17.17	J-1198
5624	J-2999	Forest	TRUE	1.00	1632.48	1.88	1633.36	20.00	23.69	20.00	20.00	J-858	(N/A)	17.17	J-1198
8064	J-4164	Forest	TRUE	1.00	1632.58	2.28	1633.86	20.00	24.88	20.00	20.00	J-3008	(N/A)	17.19	J-1198
7724	J-4099	Forest	TRUE	1.00	1632.59	2.28	1633.87	20.00	23.08	20.00	20.00	J-3008	(N/A)	17.19	J-1198
3649	J-1990	Forest	TRUE	1.00	1633.81	1.28	1634.09	20.00	20.00	20.00	23.39	J-1599	(N/A)	17.09	J-1198
3791	J-2065	Forest	TRUE	1.00	1634.06	1.48	1634.54	20.00	21.98	20.00	20.03	J-1044	(N/A)	16.89	J-1198
5172	J-2740	Forest	TRUE	1.00	1634.08	1.48	1634.55	20.00	22.08	20.00	20.03	J-1044	(N/A)	16.89	J-1198
3494	J-1904	Forest	TRUE	1.00	1634.14	2.48	1635.62	20.00	20.16	20.00	20.00	J-3143	(N/A)	17.17	J-1198
4089	J-2204	Forest	TRUE	1.00	1637.55	2.28	1638.83	20.00	20.00	20.00	20.05	J-3429	(N/A)	17.17	J-1198
5907	J-3161	Forest	TRUE	1.00	1638.00	3.49	1640.49	20.00	20.00	20.00	20.64	J-2032	(N/A)	17.16	J-1198
4941	J-2608	Forest	TRUE	1.00	1638.23	1.88	1639.11	20.00	20.00	20.00	20.45	J-2096	(N/A)	17.17	J-1198
3970	J-2150	Forest	TRUE	1.00	1639.44	1.48	1639.92	20.00	20.01	20.00	20.76	J-2919	(N/A)	17.17	J-1198
1613	J-805	Forest	TRUE	1.00	1641.17	1.08	1641.24	20.00	20.37	20.00	20.06	J-806	(N/A)	17.07	J-1198
4110	J-2211	Forest	TRUE	1.00	1641.31	1.68	1641.99	20.00	20.00	20.00	24.17	J-1197	(N/A)	17.09	J-1198
3289	J-1789	Forest	TRUE	1.00	1641.58	1.48	1642.06	20.00	20.00	20.00	20.04	J-1790	(N/A)	17.17	J-1198
5484	J-2920	Forest	TRUE	1.00	1645.00	1.48	1645.48	20.00	20.01	20.00	20.45	J-2919	(N/A)	17.17	J-1198
4267	J-2270	Forest	TRUE	1.00	1645.25	2.08	1646.33	20.00	20.67	20.00	20.00	J-3688	(N/A)	17.17	J-1198
4120	J-2216	Forest	TRUE	1.00	1645.60	1.88	1646.48	20.00	20.64	20.00	20.00	J-3476	(N/A)	17.17	J-1198
7576	J-4054	Forest	TRUE	1.00	1645.80	1.08	1645.88	20.00	20.58	20.00	20.00	J-3204	(N/A)	17.17	J-1198
4728	J-2487	Stewartsville	TRUE	1.00	1645.83	1.11	1645.95	20.00	21.92	20.00	20.06	J-4020	(N/A)	17.23	J-1198
4729	J-2488	Stewartsville	TRUE	1.00	1645.87	1.40	1646.27	20.00	22.29	20.00	20.06	J-4020	(N/A)	17.23	J-1198
3725	J-2032	Forest	TRUE	1.00	1646.88	1.08	1646.95	20.00	20.01	20.00	20.04	J-3161	(N/A)	17.16	J-1198
7644	J-4077	Forest	TRUE	1.00	1647.05	1.28	1647.33	20.00	20.00	20.00	21.66	J-1467	(N/A)	17.08	J-1198
3855	J-2096	Forest	TRUE	1.00	1647.21	1.88	1648.09	20.00	20.05	20.00	20.04	J-2608	(N/A)	17.17	J-1198
3464	J-1886	Forest	TRUE	1.00	1648.56	1.48	1649.04	20.00	22.57	20.00	20.00	J-2692	(N/A)	17.17	J-1198
5665	J-3024	Forest	TRUE	1.00	1648.65	1.48	1649.13	20.00	20.00	20.00	20.55	J-2193	(N/A)	17.19	J-1198
7133	J-3878	Forest	TRUE	1.00	1649.13	1.08	1649.21	20.00	30.55	20.00	20.00	J-858	(N/A)	17.17	J-1198
7132	J-3877	Forest	TRUE	1.00	1649.13	1.48	1649.61	20.00	30.36	20.00	20.00	J-858	(N/A)	17.17	J-1198
6563	J-3547	Forest	TRUE	1.00	1649.70	1.48	1650.17	20.00	20.00	20.00	20.84	J-3546	(N/A)	17.17	J-1198
5165	J-2736	Forest	TRUE	1.00	1650.67	1.08	1650.75	20.00	20.00	20.00	20.06	J-1966	(N/A)	16.99	J-1198
3603	J-1966	Forest	TRUE	1.00	1651.18	2.88	1653.06	20.00	20.00	20.00	20.46	J-2736	(N/A)	16.99	J-1198
390	J-213	Forest	TRUE	1.00	1651.60	1.08	1651.68	20.00	52.55	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6103	J-3274	Forest	TRUE	1.00	1666.32	1.68	1667.00	20.00	22.51	20.00	20.00	J-3174	(N/A)	17.17	J-1198
6104	J-3275	Forest	TRUE	1.00	1666.34	1.48	1666.82	20.00	21.56	20.00	20.00	J-3174	(N/A)	17.17	J-1198
5602	J-2987	Forest	TRUE	1.00	1667.91	1.48	1668.39	20.00	20.00	20.00	20.69	J-2986	(N/A)	17.17	J-1198
3880	J-2108	Forest	TRUE	1.00	1669.67	2.68	1671.35	20.00	20.00	20.00	24.14	J-1197	(N/A)	17.06	J-1198
5483	J-2919	Forest	TRUE	1.00	1669.91	1.28	1670.18	20.00	20.00	20.00	20.15	J-2920	(N/A)	17.17	J-1198
5959	J-3190	Forest	TRUE	1.00	1669.96	1.08	1670.04	20.00	20.01	20.00	20.65	J-2087	(N/A)	17.06	J-1198
6196	J-3329	Forest	TRUE	1.00	1670.68	1.28	1670.96	20.00	20.44	20.00	20.03	J-3330	(N/A)	17.19	J-1198
1819	J-937	Forest	TRUE	1.00	1670.85	1.08	1670.93	20.00	20.02	20.00	20.02	J-3330	(N/A)	17.19	J-1198
3324	J-1808	Forest	TRUE	1.00	1672.02	1.48	1672.50	20.00	20.00	20.00	21.64	J-2274	(N/A)	17.10	J-1198
2033	J-1075	Forest	TRUE	1.00	1673.24	2.08	1674.32	20.00	20.00	20.00	20.11	J-3204	(N/A)	17.17	J-1198
4638	J-2438	Stewartsville	TRUE	1.00	1675.67	1.26	1675.93	20.00	20.00	20.00	20.42	J-676	(N/A)	17.23	J-1198
3679	J-2006	Forest	TRUE	1.00	1676.81	2.28	1678.09	20.00	22.50	20.00	20.00	J-2208	(N/A)	17.08	J-1198
6562	J-3546	Forest	TRUE	1.00	1678.09	1.28	1678.36	20.00	20.00	20.00	20.13	J-3547	(N/A)	17.17	J-1198
3838	J-2087	Forest	TRUE	1.00	1678.28	1.48	1678.76	20.00	20.00	20.00	20.13	J-3190	(N/A)	17.06	J-1198
7413	J-3997	Forest	TRUE	1.00	1679.69	2.88	1681.58	20.00	20.00	20.00	20.04	J-3546	(N/A)	17.17	J-1198
234	J-112	Stewartsville	TRUE	1.00	1679.99	1.11	1680.10	20.00	20.47	20.00	20.06	J-2438	(N/A)	17.23	J-1198
235	J-113	Stewartsville	TRUE	1.00	1680.00	1.11	1680.11	20.00	20.51	20.00	20.06	J-2438	(N/A)	17.23	J-1198
1885	J-980	Forest	TRUE	1.00	1681.39	1.48	1681.87	20.00	20.02	20.00	20.93	J-1739	(N/A)	16.87	J-1198
6842	J-3712	Forest	TRUE	1.00	1681.96	1.48	1682.44	20.00	20.00	20.00	20.74	J-2029	(N/A)	17.19	J-1198
962	J-529	Forest	TRUE	1.00	1682.08	1.28	1682.36	20.00	50.80	20.00	20.00	J-3200	(N/A)	17.19	J-1198
2655	J-1430	Forest	TRUE	1.00	1682.47	1.68	1683.15	20.00	31.79	20.00	20.00	J-3425	(N/A)	17.19	J-1198
684	J-394	Stewartsville	TRUE	1.00	1684.99	1.11	1685.11	20.00	106.88	20.00	20.00	J-676	(N/A)	17.23	J-1198
671	J-387	Stewartsville	TRUE	1.00	1684.99	1.11	1685.11	20.00	105.46	20.00	20.00	J-676	(N/A)	17.23	J-1198
6535	J-3529	Stewartsville	TRUE	1.00	1685.00	1.11	1685.11	20.00	105.74	20.00	20.00	J-676	(N/A)	17.23	J-1198
1022	J-556	Stewartsville	TRUE	1.00	1685.00	1.26	1685.26	20.00	99.83	20.00	20.00	J-676	(N/A)	17.23	J-1198
4625	J-2430	Stewartsville	TRUE	1.00	1685.00	1.11	1685.11	20.00	99.29	20.00	20.00	J-676	(N/A)	17.23	J-1198
815	J-461	Stewartsville	TRUE	1.00	1685.00	1.26	1685.26	20.00	94.83	20.00	20.00	J-676	(N/A)	17.23	J-1198
672	J-388	Stewartsville	TRUE	1.00	1685.00	1.69	1685.69	20.00	104.32	20.00	20.00	J-676	(N/A)	17.23	J-1198
1261	J-655	Stewartsville	TRUE	1.00	1685.02	1.26	1685.28	20.00	90.98	20.00	20.00	J-676	(N/A)	17.23	J-1198
4644	J-2441	Stewartsville	TRUE	1.00	1685.02	1.11	1685.13	20.00	90.74	20.00	20.00	J-676	(N/A)	17.23	J-1198
6857	J-3720	Stewartsville	TRUE	1.00	1685.05	2.36	1686.41	20.00	74.82	20.00	20.00	J-676	(N/A)	17.23	J-1198
6856	J-3719	Stewartsville	TRUE	1.00	1685.05	1.40	1685.45	20.00	73.59	20.00	20.00	J-676	(N/A)	17.23	J-1198
4488	J-2351	Stewartsville	TRUE	1.00	1685.05	1.11	1685.16	20.00	64.42	20.00	20.00	J-676	(N/A)	17.23	J-1198
846	J-477	Stewartsville	TRUE	1.00	1685.05	1.40	1685.45	20.00	64.64	20.00	20.00	J-676	(N/A)	17.23	J-1198
4156	J-2231	Stewartsville	TRUE	1.00	1685.05	1.42	1685.47	20.00	70.41	20.00	20.00	J-676	(N/A)	17.23	J-1198
623	J-357	Stewartsville	TRUE	1.00	1685.06	1.26	1685.32	20.00	56.40	20.00	20.00	J-676	(N/A)	17.23	J-1198
624	J-358	Stewartsville	TRUE	1.00	1685.06	1.11	1685.17	20.00	55.74	20.00	20.00	J-676	(N/A)	17.23	J-1198
4309	J-2284	Stewartsville	TRUE	1.00	1685.07	2.12	1686.19	20.00	56.85	20.00	20.00	J-676	(N/A)	17.23	J-1198
222	J-104	Stewartsville	TRUE	1.00	1685.07	1.11	1685.19	20.00	46.37	20.00	20.00	J-676	(N/A)	17.23	J-1198
223	J-105	Stewartsville	TRUE	1.00	1685.07	1.11	1685.19	20.00	46.36	20.00	20.00	J-676	(N/A)	17.23	J-1198
341	J-181	Stewartsville	TRUE	1.00	1685.07	1.11	1685.19	20.00	44.23	20.00	20.00	J-676	(N/A)	17.23	J-1198
340	J-180	Stewartsville	TRUE	1.00	1685.07	1.11	1685.19	20.00	44.24	20.00	20.00	J-676	(N/A)	17.23	J-1198
586	J-335	Stewartsville	TRUE	1.00	1685.07	1.11	1685.19	20.00	44.17	20.00	20.00	J-676	(N/A)	17.23	J-1198
4619	J-2427	Stewartsville	TRUE	1.00	1685.08	4.28	1688.36	20.00	43.73	20.00	20.00	J-676	(N/A)	17.23	J-1198
526	J-298	Stewartsville	TRUE	1.00	1685.08	1.26	1685.33	20.00	39.90	20.00	20.00	J-676	(N/A)	17.23	J-1198
527	J-299	Stewartsville	TRUE	1.00	1685.08	1.11	1685.19	20.00	39.40	20.00	20.00	J-676	(N/A)	17.23	J-1198
7054	J-3834	Stewartsville	TRUE	1.00	1685.08	1.11	1685.19	20.00	35.74	20.00	20.00	J-676	(N/A)	17.23	J-1198
1087	J-584	Stewartsville	TRUE	1.00	1685.08	1.55	1685.62	20.00	34.34	20.00	20.00	J-676	(N/A)	17.23	J-1198
827	J-468	Stewartsville	TRUE	1.00	1685.08	1.11	1685.19	20.00	34.25	20.00	20.00	J-676	(N/A)	17.23	J-1198
4520	J-2369	Stewartsville	TRUE	1.00	1685.08	1.40	1685.48	20.00	33.82	20.00	20.00	J-676	(N/A)	17.23	J-1198
321	J-168	Stewartsville	TRUE	1.00	1685.08	1.11	1685.19	20.00	32.48	20.00	20.00	J-676	(N/A)	17.23	J-1198
322	J-169	Stewartsville	TRUE	1.00	1685.08	1.40	1685.48	20.00	33.00	20.00	20.00	J-676	(N/A)	17.23	J-1198
5965	J-3193	Stewartsville	TRUE	1.00	1685.08	1.26	1685.34	20.00	33.48	20.00	20.00	J-676	(N/A)	17.23	J-1198
4943	J-2609	Stewartsville	TRUE	1.00	1685.08	1.11	1685.20	20.00	30.58	20.00	20.00	J-676	(N/A)	17.23	J-1198
1055	J-571	Stewartsville	TRUE	1.00	1685.08	1.55	1685.63	20.00	30.83	20.00	20.00	J-676	(N/A)	17.23	J-1198
799	J-454	Stewartsville	TRUE	1.00	1685.08	1.40	1685.49	20.00	35.98	20.00	20.00	J-676	(N/A)	17.23	J-1198
798	J-453	Stewartsville	TRUE	1.00	1685.08	1.55	1685.63	20.00	29.64	20.00	20.00	J-676	(N/A)	17.23	J-1198
4911	J-2590	Stewartsville	TRUE	1.00	1685.08	1.11	1685.20	20.00	38.61	20.00	20.00	J-676	(N/A)	17.23	J-1198
4543	J-2382	Stewartsville	TRUE	1.00	1685.08	1.11	1685.20	20.00	51.33	20.00	20.00	J-676	(N/A)	17.23	J-1198
509	J-287	Stewartsville	TRUE	1.00	1685.08	1.26	1685.34	20.00	50.41	20.00	20.00	J-676	(N/A)	17.23	J-1198
4544	J-2383	Stewartsville	TRUE	1.00	1685.08	1.11	1685.20	20.00	51.07	20.00	20.00	J-676	(N/A)	17.23	J-1198
508	J-286	Stewartsville	TRUE	1.00	1685.09	1.26	1685.34	20.00	51.51	20.00	20.00	J-676	(N/A)	17.23	J-1198
1098	J-589	Stewartsville	TRUE	1.00	1685.09	1.26	1685.34	20.00	39.21	20.00	20.00	J-676	(N/A)	17.23	J-1198
5546	J-2954	Stewartsville	TRUE	1.00	1685.09	1.11	1685.20	20.00	35.39	20.00	20.00	J-676	(N/A)	17.23	J-1198
2689	J-1449	Forest	TRUE	1.00	1685.12	3.29	1687.41	20.00	20.00	20.00	22.40	J-1450	(N/A)	17.11	J-1198
3243	J-1761	Forest	TRUE	1.00	1687.39	1.28	1687.67	20.00	20.00	20.00	21.07	J-2339	(N/A)	16.87	J-1198
2435	J-1305	Forest	TRUE	1.00	1688.18	1.08	1688.26	20.00	20.64	20.00	20.05	J-806	(N/A)	17.07	J-1198
5802	J-3103	Forest	TRUE	1.00	1689.98	1.48	1690.46	20.00	48.65	20.00	20.00	J-3200	(N/A)	17.18	J-1198
5803	J-3104	Forest	TRUE	1.00	1689.98	1.68	1690.66	20.00	47.94	20.00	20.00	J-3200	(N/A)	17.18	J-1198
5601	J-2986	Forest	TRUE	1.00	1690.10	1.88	1690.98	20.00	20.00	20.00	20.00	J-2987	(N/A)	17.17	J-1198
2362	J-1266	Forest	TRUE	1.00	1690.47	1.48	1690.95	20.00	27.35	20.00	20.00	J-1267	(N/A)	17.17	J-1198
5563	J-2964	Forest	TRUE	1.00	1691.92	2.28	1693.21	20.00	22.75	20.00	20.00	J-3997	(N/A)	17.17	J-1198
5564	J-2965	Forest	TRUE	1.00	1691.94	2.88	1693.82	20.00	21.97	20.00	20.00	J-3997	(N/A)	17.17	J-1198
3720	J-2029	Forest	TRUE	1.00	1693.28	1.68	1693.96	20.00	20.00	20.00	20.42	J-3712	(N/A)	17.19	J-1198
3207	J-1739	Forest	TRUE	1.00	1693.48	1.08	1693.55	20.00	20.03	20.00	20.13	J-980	(N/A)	16.87	J-1198
4777	J-2514	Forest	TRUE	1.00	1693.61	1.08	1693.69	20.00	20.00	20.00	20.18	J-2274	(N/A)	17.10	J-1198
3325	J-1809	Forest	TRUE	1.00	1695.64	1.08	1695.72	20.00	20.34	20.00	20.05	J-2274	(N/A)	17.10	J-1198
6609	J-3574	Forest	TRUE	1.00	1695.85	1.28	1696.13	20.00	31.48	20.00	20.00	J-3425	(N/A)	17.19	J-1198
6608	J-3573	Forest	TRUE	1.00	1695.86	1.08	1695.93	20.00	30.17	20.					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2743	J-1482	Forest	TRUE	1.00	1706.95	2.48	1708.43	20.00	20.25	20.00	20.06	J-2698	(N/A)	17.06	J-1198
6111	J-3279	Lakes	TRUE	1.00	1706.97	1.29	1707.25	20.00	87.17	20.00	20.05	J-2323	(N/A)	17.23	J-1198
4468	J-2339	Forest	TRUE	1.00	1707.03	1.08	1707.11	20.00	20.00	20.00	20.25	J-1760	(N/A)	16.87	J-1198
2647	J-1425	Forest	TRUE	1.00	1710.66	1.88	1711.54	20.00	20.00	20.00	20.25	J-3494	(N/A)	16.98	J-1198
6654	J-3601	Forest	TRUE	1.00	1712.62	1.48	1713.10	20.00	20.02	20.00	20.53	J-2026	(N/A)	16.86	J-1198
3242	J-1760	Forest	TRUE	1.00	1712.67	1.08	1712.75	20.00	20.01	20.00	20.00	J-2339	(N/A)	16.86	J-1198
6553	J-3540	Forest	TRUE	1.00	1713.03	2.68	1714.71	20.00	37.15	20.00	20.02	J-3546	(N/A)	17.17	J-1198
6554	J-3541	Forest	TRUE	1.00	1713.03	1.28	1713.30	20.00	36.25	20.00	20.02	J-3546	(N/A)	17.17	J-1198
7528	J-4039	Forest	TRUE	1.00	1713.95	1.08	1714.02	20.00	27.98	20.00	20.00	J-858	(N/A)	17.17	J-1198
5382	J-2862	Forest	TRUE	1.00	1713.98	1.08	1714.05	20.00	22.98	20.00	20.00	J-858	(N/A)	17.17	J-1198
5383	J-2863	Forest	TRUE	1.00	1713.98	1.88	1714.86	20.00	22.20	20.00	20.00	J-858	(N/A)	17.17	J-1198
2633	J-1417	Forest	TRUE	1.00	1713.98	1.88	1714.86	20.00	22.09	20.00	20.00	J-858	(N/A)	17.17	J-1198
4962	J-2620	Forest	TRUE	1.00	1714.09	1.48	1714.57	20.00	24.09	20.00	20.03	J-1599	(N/A)	17.08	J-1198
2967	J-1600	Forest	TRUE	1.00	1714.11	2.48	1715.60	20.00	25.92	20.00	20.03	J-1599	(N/A)	17.08	J-1198
3313	J-1802	Forest	TRUE	1.00	1714.14	1.08	1714.21	20.00	24.57	20.00	20.03	J-1599	(N/A)	17.08	J-1198
2577	J-1384	Forest	TRUE	1.00	1714.37	1.08	1714.45	20.00	62.41	20.00	20.00	J-3904	(N/A)	16.86	J-1198
6242	J-3358	Forest	TRUE	1.00	1714.37	1.28	1714.65	20.00	58.55	20.00	20.00	J-3904	(N/A)	16.86	J-1198
7365	J-3979	Forest	TRUE	1.00	1714.37	1.08	1714.45	20.00	59.04	20.00	20.00	J-3904	(N/A)	16.86	J-1198
7368	J-3980	Forest	TRUE	1.00	1714.37	1.08	1714.45	20.00	49.90	20.00	20.00	J-3904	(N/A)	16.86	J-1198
6243	J-3359	Forest	TRUE	1.00	1714.37	1.08	1714.45	20.00	58.03	20.00	20.00	J-3904	(N/A)	16.86	J-1198
7827	J-4127	Forest	TRUE	1.00	1714.37	1.68	1715.05	20.00	55.00	20.00	20.00	J-3904	(N/A)	16.86	J-1198
7828	J-4128	Forest	TRUE	1.00	1714.37	1.28	1714.65	20.00	56.88	20.00	20.00	J-3904	(N/A)	16.86	J-1198
7066	J-3840	Forest	TRUE	1.00	1714.37	1.08	1714.45	20.00	58.81	20.00	20.00	J-3904	(N/A)	16.86	J-1198
2753	J-1488	Forest	TRUE	1.00	1714.37	1.28	1714.65	20.00	55.47	20.00	20.00	J-3904	(N/A)	16.86	J-1198
4503	J-2359	Forest	TRUE	1.00	1714.37	1.08	1714.45	20.00	55.08	20.00	20.00	J-3904	(N/A)	16.86	J-1198
7709	J-4094	Forest	TRUE	1.00	1716.28	1.08	1716.36	20.00	42.02	20.00	20.02	J-3546	(N/A)	17.17	J-1198
1167	J-613	Forest	TRUE	1.00	1717.31	1.48	1717.79	20.00	47.37	20.00	20.00	J-3200	(N/A)	17.18	J-1198
6088	J-3266	Lakes	TRUE	1.00	1718.81	1.20	1719.01	20.00	25.40	20.00	20.00	J-3906	(N/A)	17.23	J-1198
6087	J-3265	Lakes	TRUE	1.00	1718.81	1.20	1719.01	20.00	26.35	20.00	20.00	J-3906	(N/A)	17.23	J-1198
5337	J-2835	Forest	TRUE	1.00	1719.16	1.88	1720.04	20.00	20.01	20.00	20.44	J-2836	(N/A)	17.19	J-1198
3714	J-2026	Forest	TRUE	1.00	1719.64	1.48	1720.12	20.00	20.02	20.00	20.55	J-3601	(N/A)	16.86	J-1198
4800	J-2527	Forest	TRUE	1.00	1721.74	1.08	1721.82	20.00	20.00	20.00	20.28	J-2127	(N/A)	17.16	J-1198
6624	J-3583	Forest	TRUE	1.00	1722.52	1.48	1723.00	20.00	20.67	20.00	20.04	J-895	(N/A)	17.19	J-1198
7688	J-4087	Forest	TRUE	1.00	1723.00	2.08	1724.08	20.00	33.93	20.00	20.00	J-895	(N/A)	17.19	J-1198
6623	J-3582	Forest	TRUE	1.00	1723.02	1.88	1723.90	20.00	22.11	20.00	20.00	J-895	(N/A)	17.19	J-1198
1784	J-914	Forest	TRUE	1.00	1723.02	1.48	1723.50	20.00	21.06	20.00	20.00	J-895	(N/A)	17.19	J-1198
7617	J-4068	Forest	TRUE	1.00	1725.33	1.48	1725.81	20.00	20.01	20.00	20.09	J-2836	(N/A)	17.19	J-1198
5338	J-2836	Forest	TRUE	1.00	1726.67	1.48	1727.14	20.00	20.01	20.00	20.23	J-2835	(N/A)	17.19	J-1198
3919	J-2127	Forest	TRUE	1.00	1727.26	2.88	1729.15	20.00	20.01	20.00	20.22	J-2527	(N/A)	17.16	J-1198
6292	J-3387	Forest	TRUE	1.00	1727.57	2.68	1729.26	20.00	23.47	20.00	20.00	J-1167	(N/A)	17.19	J-1198
6293	J-3388	Forest	TRUE	1.00	1727.58	2.28	1728.86	20.00	22.83	20.00	20.00	J-1167	(N/A)	17.19	J-1198
3860	J-2098	Forest	TRUE	1.00	1728.39	1.88	1729.27	20.00	32.19	20.00	20.01	J-2002	(N/A)	17.16	J-1198
5414	J-2880	Forest	TRUE	1.00	1728.41	2.08	1729.49	20.00	31.57	20.00	20.01	J-2002	(N/A)	17.16	J-1198
7357	J-3977	Forest	TRUE	1.00	1728.69	1.08	1728.77	20.00	23.09	20.00	20.03	J-1942	(N/A)	14.87	J-1198
3560	J-1941	Forest	TRUE	1.00	1728.73	1.08	1728.80	20.00	23.47	20.00	20.03	J-1942	(N/A)	14.87	J-1198
1688	J-852	Forest	TRUE	1.00	1729.57	1.08	1729.64	20.00	20.00	20.00	21.22	J-853	(N/A)	17.06	J-1198
3322	J-1807	Forest	TRUE	1.00	1731.04	1.28	1731.32	20.00	20.00	20.00	21.60	J-1806	(N/A)	16.86	J-1198
7460	J-4013	Forest	TRUE	1.00	1731.08	2.08	1732.16	20.00	25.06	20.00	20.00	J-2280	(N/A)	17.19	J-1198
7461	J-4014	Forest	TRUE	1.00	1731.08	1.08	1731.16	20.00	23.81	20.00	20.00	J-2280	(N/A)	17.19	J-1198
5902	J-3158	Forest	TRUE	1.00	1732.80	1.48	1733.28	20.00	20.01	20.00	21.23	J-923	(N/A)	17.19	J-1198
6977	J-3790	Forest	TRUE	1.00	1733.07	2.28	1734.35	20.00	20.00	20.00	21.29	J-4139	(N/A)	17.17	J-1198
4680	J-2461	Forest	TRUE	1.00	1733.77	1.48	1734.25	20.00	44.08	20.00	20.00	J-3546	(N/A)	17.17	J-1198
4679	J-2460	Forest	TRUE	1.00	1733.77	1.48	1734.25	20.00	44.69	20.00	20.00	J-3546	(N/A)	17.17	J-1198
3655	J-1994	Forest	TRUE	1.00	1734.57	1.48	1735.05	20.00	20.00	20.00	24.05	J-1197	(N/A)	16.97	J-1198
1156	J-609	Forest	TRUE	1.00	1735.54	1.68	1736.22	20.00	35.12	20.00	20.01	J-3438	(N/A)	17.18	J-1198
7529	J-4040	Forest	TRUE	1.00	1735.55	1.08	1735.63	20.00	26.55	20.00	20.00	J-858	(N/A)	17.17	J-1198
5039	J-2665	Forest	TRUE	1.00	1735.55	3.89	1738.44	20.00	26.83	20.00	20.00	J-858	(N/A)	17.17	J-1198
5840	J-3124	Forest	TRUE	1.00	1735.55	1.48	1736.03	20.00	26.58	20.00	20.00	J-858	(N/A)	17.17	J-1198
5040	J-2666	Forest	TRUE	1.00	1735.56	1.48	1736.04	20.00	26.47	20.00	20.00	J-858	(N/A)	17.17	J-1198
5841	J-3125	Forest	TRUE	1.00	1735.56	3.09	1737.64	20.00	26.07	20.00	20.00	J-858	(N/A)	17.17	J-1198
7614	J-4067	Forest	TRUE	1.00	1735.56	1.48	1736.04	20.00	24.69	20.00	20.00	J-858	(N/A)	17.17	J-1198
6127	J-3289	Forest	TRUE	1.00	1735.57	3.09	1737.65	20.00	23.92	20.00	20.00	J-858	(N/A)	17.17	J-1198
6128	J-3290	Forest	TRUE	1.00	1735.57	1.08	1735.65	20.00	23.56	20.00	20.00	J-858	(N/A)	17.17	J-1198
4328	J-2289	Forest	TRUE	1.00	1735.90	2.28	1737.18	20.00	20.00	20.00	24.12	J-1197	(N/A)	17.05	J-1198
2735	J-1477	Forest	TRUE	1.00	1737.09	1.48	1737.57	20.00	20.00	20.00	21.13	J-1786	(N/A)	16.97	J-1198
7821	J-4126	Forest	TRUE	1.00	1737.89	1.48	1738.37	20.00	20.00	20.00	24.24	J-1197	(N/A)	17.16	J-1198
6668	J-3609	Forest	TRUE	1.00	1737.97	1.48	1738.45	20.00	35.22	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6669	J-3610	Forest	TRUE	1.00	1738.02	1.08	1738.09	20.00	34.21	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6427	J-3467	Forest	TRUE	1.00	1738.68	1.08	1738.75	20.00	22.17	20.00	20.04	J-2113	(N/A)	14.84	J-1198
6426	J-3466	Forest	TRUE	1.00	1738.68	1.08	1738.75	20.00	23.46	20.00	20.04	J-2113	(N/A)	14.84	J-1198
3613	J-1970	Forest	TRUE	1.00	1739.51	1.28	1739.78	20.00	32.42	20.00	20.00	J-2113	(N/A)	14.84	J-1198
1041	J-565	Forest	TRUE	1.00	1739.69	1.08	1739.77	20.00	35.35	20.00	20.02	J-3200	(N/A)	17.18	J-1198
6698	J-3627	Forest	TRUE	1.00	1739.74	1.08	1739.81	20.00	34.70	20.00	20.01	J-3200	(N/A)	17.18	J-1198
5506	J-2931	Forest	TRUE	1.00	1739.79	2.08	1740.87	20.00	25.61	20.00	20.00	J-4124	(N/A)	17.17	J-1198
5507	J-2932	Forest	TRUE	1.00	1739.81	1.68	1740.49	20.00	25.12	20.00	20.00	J-4124	(N/A)	17.17	J-1198
1797	J-923	Forest	TRUE	1.00	1743.80	1.28	1744.08	20.00	20.51	20.00	20.03	J-3158	(N/A)	17.19	J-1198
7938	J-4146	Forest	TRUE	1.00	1744.38	2.08	1745.46	20.00	20.00	20.00	22.13	J-2050	(N/A)	17.17	J-1198
5435	J-2892	Forest	TRUE	1.00	1746.47	1.68	1747.15	20.00	20.00	20.00	20.14	J-1786	(N/A)	16.97	J-1198
3283	J-1786	Forest	TRUE	1.00	1747.82	1.48	1748.30	20.00	20.00	20.00	20.48	J-1			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7797	J-4120	Forest	TRUE	1.00	1758.89	3.29	1761.17	20.00	36.66	20.00	20.01	J-3438	(N/A)	17.18	J-1198
7416	J-3998	Forest	TRUE	1.00	1758.95	1.48	1759.43	20.00	39.72	20.00	20.01	J-3438	(N/A)	17.18	J-1198
7417	J-3999	Forest	TRUE	1.00	1758.97	1.08	1759.04	20.00	39.20	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6759	J-3662	Forest	TRUE	1.00	1759.01	1.48	1759.48	20.00	37.49	20.00	20.01	J-3438	(N/A)	17.18	J-1198
7350	J-3976	Forest	TRUE	1.00	1759.02	1.08	1759.10	20.00	36.61	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6760	J-3663	Forest	TRUE	1.00	1759.04	1.08	1759.12	20.00	36.03	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6764	J-3665	Forest	TRUE	1.00	1759.81	1.88	1760.69	20.00	33.95	20.00	20.00	J-895	(N/A)	17.19	J-1198
6765	J-3666	Forest	TRUE	1.00	1759.81	1.48	1760.29	20.00	32.32	20.00	20.00	J-895	(N/A)	17.19	J-1198
5843	J-3126	Forest	TRUE	1.00	1760.41	1.28	1760.69	20.00	20.00	20.00	20.43	J-3200	(N/A)	17.18	J-1198
6925	J-3761	Forest	TRUE	1.00	1761.06	1.48	1761.54	20.00	20.00	20.00	22.31	J-2233	(N/A)	17.18	J-1198
6208	J-3337	Lakes	TRUE	1.00	1762.03	1.20	1762.23	20.00	78.70	20.00	20.00	J-2323	(N/A)	17.23	J-1198
1180	J-618	Lakes	TRUE	1.00	1762.03	1.55	1762.57	20.00	80.16	20.00	20.00	J-2323	(N/A)	17.23	J-1198
5833	J-3120	Forest	TRUE	1.00	1762.21	1.48	1762.69	20.00	20.00	20.00	20.86	J-2203	(N/A)	17.20	J-1198
6469	J-3491	Forest	TRUE	1.00	1763.93	1.28	1764.21	20.00	20.00	20.00	21.04	J-1485	(N/A)	17.16	J-1198
3321	J-1806	Forest	TRUE	1.00	1764.68	1.48	1765.16	20.00	20.00	20.00	20.53	J-1807	(N/A)	16.85	J-1198
2530	J-1358	Forest	TRUE	1.00	1766.62	1.48	1767.10	20.00	20.00	20.00	24.18	J-1197	(N/A)	17.10	J-1198
7010	J-3810	Forest	TRUE	1.00	1767.20	1.68	1767.88	20.00	20.00	20.00	21.53	J-3809	(N/A)	17.16	J-1198
2698	J-1455	Forest	TRUE	1.00	1767.46	1.48	1767.94	20.00	21.47	20.00	20.00	J-1454	(N/A)	17.07	J-1198
5386	J-2865	Forest	TRUE	1.00	1768.19	1.88	1769.07	20.00	31.81	20.00	20.00	J-3585	(N/A)	17.17	J-1198
5385	J-2864	Forest	TRUE	1.00	1768.21	1.88	1769.09	20.00	30.90	20.00	20.00	J-3585	(N/A)	17.17	J-1198
6492	J-3504	Forest	TRUE	1.00	1769.37	2.28	1770.65	20.00	35.20	20.00	20.01	J-3200	(N/A)	17.18	J-1198
6493	J-3505	Forest	TRUE	1.00	1769.41	1.68	1770.09	20.00	34.23	20.00	20.01	J-3200	(N/A)	17.18	J-1198
4470	J-2340	Forest	TRUE	1.00	1770.29	1.48	1770.77	20.00	21.09	20.00	20.05	J-1454	(N/A)	17.07	J-1198
4471	J-2341	Forest	TRUE	1.00	1770.34	2.28	1771.63	20.00	21.26	20.00	20.04	J-1454	(N/A)	17.07	J-1198
602	J-345	Forest	TRUE	1.00	1771.38	1.08	1771.46	20.00	20.41	20.00	20.00	J-3200	(N/A)	17.18	J-1198
4087	J-2203	Forest	TRUE	1.00	1773.00	1.88	1773.88	20.00	20.15	20.00	20.05	J-3120	(N/A)	17.20	J-1198
4127	J-2218	Forest	TRUE	1.00	1773.15	2.28	1774.43	20.00	26.84	20.00	20.00	J-2219	(N/A)	17.19	J-1198
6787	J-3679	Forest	TRUE	1.00	1773.90	1.08	1773.98	20.00	26.71	20.00	20.00	J-2219	(N/A)	17.19	J-1198
6788	J-3680	Forest	TRUE	1.00	1773.91	1.48	1774.38	20.00	25.51	20.00	20.00	J-2219	(N/A)	17.19	J-1198
6160	J-3308	Forest	TRUE	1.00	1774.87	2.28	1776.15	20.00	30.08	20.00	20.01	J-3546	(N/A)	17.17	J-1198
6161	J-3309	Forest	TRUE	1.00	1774.91	1.88	1775.79	20.00	29.32	20.00	20.01	J-3546	(N/A)	17.17	J-1198
601	J-344	Forest	TRUE	1.00	1776.26	1.68	1776.94	20.00	21.36	20.00	20.00	J-3200	(N/A)	17.18	J-1198
6644	J-3595	Forest	TRUE	1.00	1776.79	1.08	1776.87	20.00	75.19	20.00	20.00	J-3090	(N/A)	16.84	J-1198
6645	J-3596	Forest	TRUE	1.00	1776.79	1.08	1776.87	20.00	72.78	20.00	20.00	J-3090	(N/A)	16.84	J-1198
1576	J-781	Lakes	TRUE	1.00	1777.77	1.20	1777.97	20.00	20.00	20.00	20.70	J-826	(N/A)	17.23	J-1198
473	J-265	Forest	TRUE	1.00	1777.78	1.28	1778.05	20.00	31.31	20.00	20.01	J-3438	(N/A)	17.18	J-1198
5178	J-2743	Forest	TRUE	1.00	1777.79	1.08	1777.87	20.00	30.95	20.00	20.01	J-3438	(N/A)	17.18	J-1198
3909	J-2122	Forest	TRUE	1.00	1778.29	1.48	1778.77	20.00	63.54	20.00	20.00	J-1197	(N/A)	12.92	J-1198
7726	J-4100	Forest	TRUE	1.00	1778.29	1.28	1778.57	20.00	60.98	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5369	J-2854	Forest	TRUE	1.00	1778.38	1.08	1778.46	20.00	21.20	20.00	20.07	J-1378	(N/A)	17.06	J-1198
882	J-496	Stewartsville	TRUE	1.00	1778.47	1.11	1778.58	20.00	76.02	20.00	20.00	J-676	(N/A)	17.23	J-1198
5187	J-2748	Stewartsville	TRUE	1.00	1778.47	1.26	1778.73	20.00	75.24	20.00	20.00	J-676	(N/A)	17.23	J-1198
2568	J-1379	Forest	TRUE	1.00	1778.48	1.08	1778.56	20.00	21.61	20.00	20.06	J-1378	(N/A)	17.06	J-1198
6976	J-3789	Forest	TRUE	1.00	1778.91	1.88	1779.79	20.00	20.09	20.00	20.02	J-3790	(N/A)	17.17	J-1198
472	J-264	Forest	TRUE	1.00	1779.20	1.08	1779.28	20.00	30.86	20.00	20.01	J-3438	(N/A)	17.18	J-1198
7237	J-3929	Forest	TRUE	1.00	1779.21	1.68	1779.89	20.00	30.38	20.00	20.01	J-3438	(N/A)	17.18	J-1198
5767	J-3083	Forest	TRUE	1.00	1780.41	1.28	1780.68	20.00	20.02	20.00	20.90	J-2142	(N/A)	17.19	J-1198
575	J-329	Forest	TRUE	1.00	1780.81	1.08	1780.89	20.00	23.24	20.00	20.00	J-3200	(N/A)	17.18	J-1198
5333	J-2833	Forest	TRUE	1.00	1780.82	1.08	1780.90	20.00	22.57	20.00	20.00	J-3200	(N/A)	17.18	J-1198
1864	J-966	Forest	TRUE	1.00	1780.94	2.48	1782.42	20.00	20.98	20.00	20.05	J-967	(N/A)	17.05	J-1198
5460	J-2906	Forest	TRUE	1.00	1781.55	2.48	1783.03	20.00	20.15	20.00	20.01	J-4139	(N/A)	17.17	J-1198
3450	J-1878	Forest	TRUE	1.00	1781.90	1.48	1782.38	20.00	25.10	20.00	20.00	J-4139	(N/A)	17.17	J-1198
7886	J-4139	Forest	TRUE	1.00	1781.96	2.28	1783.24	20.00	20.00	20.00	21.33	J-3546	(N/A)	17.17	J-1198
3451	J-1879	Forest	TRUE	1.00	1782.00	1.48	1782.47	20.00	20.92	20.00	20.00	J-4139	(N/A)	17.17	J-1198
576	J-330	Forest	TRUE	1.00	1782.30	1.88	1783.18	20.00	23.33	20.00	20.00	J-3200	(N/A)	17.18	J-1198
3554	J-1937	Lakes	TRUE	1.00	1783.32	1.20	1783.52	20.00	22.82	20.00	20.02	J-2286	(N/A)	17.23	J-1198
3955	J-2143	Forest	TRUE	1.00	1783.56	1.68	1784.24	20.00	20.03	20.00	24.14	J-1197	(N/A)	17.06	J-1198
4078	J-2198	Forest	TRUE	1.00	1783.70	1.28	1783.98	20.00	43.67	20.00	20.00	J-2240	(N/A)	17.06	J-1198
5813	J-3109	Forest	TRUE	1.00	1783.70	1.48	1784.18	20.00	43.26	20.00	20.00	J-2240	(N/A)	17.06	J-1198
524	J-297	Forest	TRUE	1.00	1784.26	1.48	1784.74	20.00	35.45	20.00	20.00	J-941	(N/A)	17.16	J-1198
523	J-296	Forest	TRUE	1.00	1786.42	1.48	1786.90	20.00	31.93	20.00	20.00	J-941	(N/A)	17.16	J-1198
4548	J-2385	Forest	TRUE	1.00	1787.96	1.28	1788.24	20.00	20.00	20.00	20.16	J-3885	(N/A)	17.16	J-1198
3482	J-1897	Forest	TRUE	1.00	1788.01	1.48	1788.49	20.00	21.27	20.00	20.00	J-4181	(N/A)	17.16	J-1198
6693	J-3624	Forest	TRUE	1.00	1788.96	1.08	1789.03	20.00	20.00	20.00	21.22	J-1867	(N/A)	17.05	J-1198
7863	J-4134	Forest	TRUE	1.00	1788.97	1.68	1789.65	20.00	20.53	20.00	20.06	J-3885	(N/A)	17.16	J-1198
4255	J-2265	Forest	TRUE	1.00	1789.45	2.48	1790.93	20.00	20.00	20.00	24.13	J-1197	(N/A)	17.05	J-1198
7146	J-3885	Forest	TRUE	1.00	1789.65	2.08	1790.73	20.00	20.00	20.00	20.12	J-2386	(N/A)	17.16	J-1198
4738	J-2493	Forest	TRUE	1.00	1789.67	1.88	1790.55	20.00	20.00	20.00	20.44	J-638	(N/A)	17.17	J-1198
4549	J-2386	Forest	TRUE	1.00	1789.70	1.48	1790.17	20.00	20.00	20.00	20.00	J-3885	(N/A)	17.16	J-1198
5755	J-3076	Forest	TRUE	1.00	1791.57	1.88	1792.45	20.00	20.00	20.00	20.59	J-2123	(N/A)	17.19	J-1198
2503	J-1343	Forest	TRUE	1.00	1792.52	1.28	1792.79	20.00	20.01	20.00	23.92	J-1197	(N/A)	16.84	J-1198
3102	J-1675	Forest	TRUE	1.00	1792.99	1.08	1793.07	20.00	38.58	20.00	20.00	J-2150	(N/A)	17.16	J-1198
3103	J-1676	Forest	TRUE	1.00	1792.99	1.68	1793.67	20.00	37.91	20.00	20.00	J-2150	(N/A)	17.16	J-1198
2748	J-1485	Forest	TRUE	1.00	1793.43	1.28	1793.70	20.00	20.05	20.00	20.03	J-3491	(N/A)	17.16	J-1198
1163	J-611	Forest	TRUE	1.00	1793.74	1.48	1794.22	20.00	27.95	20.00	20.00	J-3200	(N/A)	17.18	J-1198
5051	J-2673	Forest	TRUE	1.00	1793.76	1.28	1794.04	20.00	27.37	20.00	20.00	J-3200	(N/A)	17.18	J-1198
8088	J-4167	Forest	TRUE	1.00	1794.14	1.88	1795.02	20.00	20.00	20.00	24.14	J-1197	(N/A)	17.06	J-1198
5652	J-3016	Lakes	TRUE	1.00	1794.50	1.20	1794.69	20.00	20.00	20.00	20.83	J-3015	(N/A)	17.23	J-1198
1033	J-561	Forest	TRUE	1.00	1794.77	1.68	1795.45	20.00	31.34	20.00	20.01	J-3438</			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6682	J-3617	Forest	TRUE	1.00	1800.50	1.88	1801.38	20.00	39.71	20.00	20.01	J-3438	(N/A)	17.18	J-1198
3180	J-1722	Lakes	TRUE	1.00	1800.90	1.20	1801.10	20.00	20.00	20.00	21.12	J-1723	(N/A)	17.23	J-1198
563	J-321	Lakes	TRUE	1.00	1801.32	1.20	1801.52	20.00	90.01	20.00	20.05	J-2323	(N/A)	17.23	J-1198
2425	J-1299	Lakes	TRUE	1.00	1801.39	1.29	1801.68	20.00	59.14	20.00	20.05	J-2323	(N/A)	17.23	J-1198
3438	J-1871	Forest	TRUE	1.00	1801.75	1.48	1802.23	20.00	22.00	20.00	20.00	J-2050	(N/A)	17.16	J-1198
5721	J-3056	Forest	TRUE	1.00	1801.76	1.48	1802.24	20.00	21.37	20.00	20.00	J-2050	(N/A)	17.16	J-1198
2424	J-1298	Lakes	TRUE	1.00	1802.05	1.20	1802.25	20.00	55.01	20.00	20.00	J-2323	(N/A)	17.23	J-1198
5651	J-3015	Lakes	TRUE	1.00	1803.55	1.37	1803.92	20.00	20.11	20.00	20.07	J-3016	(N/A)	17.23	J-1198
3911	J-2123	Forest	TRUE	1.00	1804.16	1.48	1804.63	20.00	20.01	20.00	20.21	J-3076	(N/A)	17.19	J-1198
3547	J-1934	Forest	TRUE	1.00	1804.31	1.88	1805.19	20.00	20.01	20.00	20.01	J-2462	(N/A)	17.05	J-1198
3764	J-2051	Forest	TRUE	1.00	1804.65	1.28	1804.92	20.00	20.01	20.00	24.27	J-1197	(N/A)	17.19	J-1198
1221	J-638	Forest	TRUE	1.00	1805.23	1.28	1805.50	20.00	20.03	20.00	20.02	J-2493	(N/A)	17.17	J-1198
400	J-219	Forest	TRUE	1.00	1805.90	1.88	1806.78	20.00	27.09	20.00	20.00	J-2493	(N/A)	17.17	J-1198
401	J-220	Forest	TRUE	1.00	1805.91	1.48	1806.39	20.00	26.88	20.00	20.00	J-2493	(N/A)	17.17	J-1198
5267	J-2794	Forest	TRUE	1.00	1805.94	2.08	1807.03	20.00	26.18	20.00	20.00	J-2493	(N/A)	17.17	J-1198
921	J-511	Forest	TRUE	1.00	1806.01	1.08	1806.09	20.00	23.98	20.00	20.00	J-2493	(N/A)	17.17	J-1198
5444	J-2897	Forest	TRUE	1.00	1806.03	1.48	1806.51	20.00	23.39	20.00	20.00	J-2493	(N/A)	17.17	J-1198
930	J-514	Forest	TRUE	1.00	1806.08	1.08	1806.15	20.00	21.15	20.00	20.00	J-2493	(N/A)	17.17	J-1198
5037	J-2664	Forest	TRUE	1.00	1806.08	1.68	1806.76	20.00	20.62	20.00	20.00	J-2493	(N/A)	17.17	J-1198
710	J-408	Forest	TRUE	1.00	1806.14	1.68	1806.82	20.00	32.16	20.00	20.00	J-941	(N/A)	17.16	J-1198
881	J-495	Stewartsville	TRUE	1.00	1806.14	1.11	1806.25	20.00	70.99	20.00	20.00	J-676	(N/A)	17.23	J-1198
6704	J-3630	Forest	TRUE	1.00	1806.23	1.48	1806.71	20.00	40.65	20.00	20.02	J-3438	(N/A)	17.18	J-1198
6705	J-3631	Forest	TRUE	1.00	1806.27	1.08	1806.35	20.00	39.76	20.00	20.02	J-3438	(N/A)	17.18	J-1198
4694	J-2468	Lakes	TRUE	1.00	1806.53	1.37	1806.90	20.00	20.00	20.00	20.31	J-1722	(N/A)	17.23	J-1198
6375	J-3437	Forest	TRUE	1.00	1807.78	1.28	1808.05	20.00	23.25	20.00	20.00	J-2150	(N/A)	17.16	J-1198
6374	J-3436	Forest	TRUE	1.00	1807.85	1.68	1808.53	20.00	25.20	20.00	20.00	J-2150	(N/A)	17.16	J-1198
3181	J-1723	Lakes	TRUE	1.00	1807.98	2.06	1809.05	20.00	20.19	20.00	20.11	J-1722	(N/A)	17.23	J-1198
3439	J-1872	Forest	TRUE	1.00	1808.54	2.08	1809.62	20.00	23.05	20.00	20.00	J-2050	(N/A)	17.16	J-1198
3856	J-2097	Forest	TRUE	1.00	1809.58	2.28	1810.86	20.00	26.61	20.00	20.00	J-2150	(N/A)	17.16	J-1198
6514	J-3517	Forest	TRUE	1.00	1809.94	1.48	1810.42	20.00	20.00	20.00	20.37	J-2236	(N/A)	17.19	J-1198
4159	J-2233	Forest	TRUE	1.00	1810.17	2.28	1811.45	20.00	20.88	20.00	20.00	J-3761	(N/A)	17.18	J-1198
6024	J-3226	Forest	TRUE	1.00	1811.68	1.88	1812.56	20.00	34.45	20.00	20.00	J-941	(N/A)	17.16	J-1198
444	J-247	Forest	TRUE	1.00	1811.68	1.08	1811.76	20.00	35.46	20.00	20.00	J-941	(N/A)	17.16	J-1198
515	J-291	Lakes	TRUE	1.00	1811.83	1.20	1812.03	20.00	83.48	20.00	20.00	J-2323	(N/A)	17.23	J-1198
3492	J-1903	Lakes	TRUE	1.00	1812.00	2.41	1813.41	20.00	20.00	20.00	25.21	J-1896	(N/A)	17.23	J-1198
443	J-246	Forest	TRUE	1.00	1812.81	1.88	1813.69	20.00	36.05	20.00	20.00	J-941	(N/A)	17.16	J-1198
6771	J-3669	Forest	TRUE	1.00	1814.08	2.08	1815.16	20.00	20.00	20.00	21.06	J-2114	(N/A)	17.19	J-1198
5401	J-2873	Forest	TRUE	1.00	1814.44	1.68	1815.12	20.00	20.10	20.00	20.03	J-2874	(N/A)	17.18	J-1198
514	J-290	Lakes	TRUE	1.00	1814.51	1.20	1814.70	20.00	85.32	20.00	20.04	J-2323	(N/A)	17.23	J-1198
704	J-405	Forest	TRUE	1.00	1814.66	1.08	1814.74	20.00	21.36	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6821	J-3699	Forest	TRUE	1.00	1814.90	1.68	1815.58	20.00	20.00	20.00	21.36	J-1993	(N/A)	16.96	J-1198
6658	J-3603	Lakes	TRUE	1.00	1815.09	1.20	1815.29	20.00	83.35	20.00	20.00	J-2323	(N/A)	17.23	J-1198
4166	J-2236	Forest	TRUE	1.00	1815.97	2.68	1817.65	20.00	20.00	20.00	20.70	J-3517	(N/A)	17.19	J-1198
7009	J-3809	Forest	TRUE	1.00	1816.45	1.68	1817.13	20.00	20.00	20.00	20.26	J-2321	(N/A)	17.16	J-1198
705	J-406	Forest	TRUE	1.00	1816.72	2.68	1818.41	20.00	20.85	20.00	20.00	J-3174	(N/A)	17.16	J-1198
307	J-159	Forest	TRUE	1.00	1817.49	1.08	1817.57	20.00	21.99	20.00	20.00	J-3174	(N/A)	17.16	J-1198
216	J-100	Forest	TRUE	1.00	1817.51	1.08	1817.59	20.00	21.99	20.00	20.00	J-3174	(N/A)	17.16	J-1198
217	J-101	Forest	TRUE	1.00	1817.52	1.08	1817.59	20.00	21.98	20.00	20.00	J-3174	(N/A)	17.16	J-1198
5951	J-3186	Forest	TRUE	1.00	1817.52	1.48	1818.00	20.00	21.41	20.00	20.00	J-3174	(N/A)	17.16	J-1198
290	J-149	Forest	TRUE	1.00	1817.53	1.08	1817.61	20.00	22.11	20.00	20.00	J-3174	(N/A)	17.16	J-1198
214	J-99	Forest	TRUE	1.00	1817.57	1.08	1817.65	20.00	21.94	20.00	20.00	J-3174	(N/A)	17.16	J-1198
213	J-98	Forest	TRUE	1.00	1817.57	1.08	1817.65	20.00	21.93	20.00	20.00	J-3174	(N/A)	17.16	J-1198
8519	J-4211	Forest	TRUE	1.00	1818.00	1.08	1818.07	20.00	24.19	20.00	20.00	J-3174	(N/A)	17.16	J-1198
810	J-459	Forest	TRUE	1.00	1818.01	1.28	1818.28	20.00	24.07	20.00	20.00	J-3174	(N/A)	17.16	J-1198
775	J-442	Forest	TRUE	1.00	1818.15	1.68	1818.83	20.00	21.87	20.00	20.00	J-3174	(N/A)	17.16	J-1198
2498	J-1340	Forest	TRUE	1.00	1821.02	1.08	1821.09	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
877	J-493	Forest	TRUE	1.00	1822.20	1.08	1822.28	20.00	48.21	20.00	20.01	J-941	(N/A)	17.16	J-1198
3522	J-1920	Forest	TRUE	1.00	1822.68	1.48	1823.16	20.00	40.39	20.00	20.00	J-941	(N/A)	17.16	J-1198
5856	J-3133	Forest	TRUE	1.00	1822.68	1.88	1823.56	20.00	39.26	20.00	20.00	J-941	(N/A)	17.16	J-1198
4476	J-2344	Forest	TRUE	1.00	1823.95	1.48	1824.43	20.00	20.00	20.00	20.22	J-1163	(N/A)	17.05	J-1198
7932	J-4145	Forest	TRUE	1.00	1824.05	1.08	1824.12	20.00	44.78	20.00	20.01	J-4116	(N/A)	17.19	J-1198
8415	J-4177	Forest	TRUE	1.00	1824.22	1.68	1824.89	20.00	24.52	20.00	20.00	J-4116	(N/A)	17.19	J-1198
6349	J-3421	Forest	TRUE	1.00	1825.72	3.49	1828.21	20.00	20.00	20.00	20.12	J-3422	(N/A)	17.16	J-1198
6999	J-3803	Forest	TRUE	1.00	1826.20	1.68	1826.88	20.00	20.04	20.00	21.79	J-3804	(N/A)	16.96	J-1198
2184	J-1163	Forest	TRUE	1.00	1827.10	1.48	1827.58	20.00	20.00	20.00	20.05	J-2344	(N/A)	17.05	J-1198
3654	J-1993	Forest	TRUE	1.00	1827.84	1.68	1828.52	20.00	20.08	20.00	20.06	J-3699	(N/A)	16.96	J-1198
6905	J-3749	Forest	TRUE	1.00	1828.68	3.09	1830.76	20.00	20.00	20.00	21.42	J-3914	(N/A)	17.19	J-1198
802	J-455	Forest	TRUE	1.00	1829.45	1.88	1830.33	20.00	24.42	20.00	20.01	J-3174	(N/A)	17.16	J-1198
872	J-490	Forest	TRUE	1.00	1834.36	1.08	1834.44	20.00	58.10	20.00	20.01	J-941	(N/A)	17.16	J-1198
8488	J-4196	Forest	TRUE	1.00	1834.82	2.08	1835.90	20.00	47.65	20.00	20.00	J-941	(N/A)	17.16	J-1198
8487	J-4195	Forest	TRUE	1.00	1834.82	2.68	1836.51	20.00	48.24	20.00	20.00	J-941	(N/A)	17.16	J-1198
3587	J-1956	Forest	TRUE	1.00	1835.04	2.28	1836.32	20.00	26.71	20.00	20.01	J-3174	(N/A)	17.16	J-1198
6338	J-3415	Forest	TRUE	1.00	1837.28	2.68	1838.96	20.00	25.94	20.00	20.01	J-3174	(N/A)	17.16	J-1198
4040	J-2180	Forest	TRUE	1.00	1837.30	1.68	1837.98	20.00	27.48	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6337	J-3414	Forest	TRUE	1.00	1837.60	1.48	1838.08	20.00	27.10	20.00	20.00	J-3174	(N/A)	17.16	J-1198
3892	J-2114	Forest	TRUE	1.00	1838.37	1.88	1839.26	20.00	20.00	20.00	20.19	J-3669	(N/A)	17.19	J-1198
5286	J-2805	Forest	TRUE	1.00	1838.63	1.28	1838.91	20.00	32.38	20.00	20.00	J-941	(N/A)	17.16	J-1198
1016	J-554	Forest	TRUE	1.00	1838.64	1.08	1838.71	20.00	32.94	20.00	20.00	J-941	(N/A)	17.16	J-1198
3990	J-2158	Forest	TRUE	1.00	1841.18	2.88	1843.07	20.00	20.17	20.00	20.02	J-2008	(N/A)	17.19	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4667	J-2453	Forest	TRUE	1.00	1855.24	3.09	1857.33	20.00	20.00	20.00	20.00	J-2454	(N/A)	17.16	J-1198
6656	J-3602	Lakes	TRUE	1.00	1855.40	1.20	1855.60	20.00	85.35	20.00	20.00	J-2323	(N/A)	17.23	J-1198
7852	J-4131	Forest	TRUE	1.00	1855.64	1.68	1856.32	20.00	40.12	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6471	J-3492	Forest	TRUE	1.00	1855.78	2.08	1856.86	20.00	21.98	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6472	J-3493	Forest	TRUE	1.00	1855.83	2.08	1856.91	20.00	20.91	20.00	20.00	J-3174	(N/A)	17.16	J-1198
1018	J-555	Forest	TRUE	1.00	1856.06	1.48	1856.53	20.00	25.23	20.00	20.01	J-3174	(N/A)	17.16	J-1198
1787	J-916	Forest	TRUE	1.00	1856.32	1.08	1856.40	20.00	21.27	20.00	20.00	J-917	(N/A)	17.19	J-1198
6202	J-3333	Forest	TRUE	1.00	1856.42	1.68	1857.10	20.00	22.78	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6203	J-3334	Forest	TRUE	1.00	1856.45	1.88	1857.33	20.00	21.43	20.00	20.00	J-3174	(N/A)	17.16	J-1198
4868	J-2565	Forest	TRUE	1.00	1856.87	1.28	1857.14	20.00	20.00	20.00	20.57	J-1463	(N/A)	17.20	J-1198
5120	J-2710	Forest	TRUE	1.00	1856.92	1.08	1857.00	20.00	21.63	20.00	20.00	J-3200	(N/A)	17.17	J-1198
5121	J-2711	Forest	TRUE	1.00	1856.93	1.28	1857.20	20.00	21.29	20.00	20.00	J-3200	(N/A)	17.17	J-1198
558	J-318	Forest	TRUE	1.00	1858.16	1.08	1858.23	20.00	45.16	20.00	20.00	J-941	(N/A)	17.16	J-1198
7975	J-4153	Forest	TRUE	1.00	1858.37	2.68	1860.05	20.00	33.29	20.00	20.00	J-3174	(N/A)	17.16	J-1198
7209	J-3914	Forest	TRUE	1.00	1858.84	1.28	1859.12	20.00	20.00	20.00	20.28	J-3749	(N/A)	17.19	J-1198
6507	J-3513	Forest	TRUE	1.00	1859.01	1.28	1859.29	20.00	34.14	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6506	J-3512	Forest	TRUE	1.00	1859.01	1.88	1859.89	20.00	35.17	20.00	20.00	J-3174	(N/A)	17.16	J-1198
549	J-319	Forest	TRUE	1.00	1860.61	1.08	1860.68	20.00	42.95	20.00	20.00	J-941	(N/A)	17.16	J-1198
5506	J-2876	Lakes	TRUE	1.00	1861.41	1.20	1861.61	20.00	20.00	20.00	20.34	J-1896	(N/A)	17.23	J-1198
7728	J-4101	Forest	TRUE	1.00	1862.56	1.28	1862.83	20.00	20.00	20.00	21.36	J-3174	(N/A)	17.16	J-1198
6958	J-3779	Forest	TRUE	1.00	1862.93	2.88	1864.81	20.00	21.57	20.00	20.00	J-3174	(N/A)	17.16	J-1198
4340	J-2292	Forest	TRUE	1.00	1863.06	2.28	1864.35	20.00	23.52	20.00	20.00	J-3174	(N/A)	17.16	J-1198
7619	J-4069	Forest	TRUE	1.00	1863.75	1.88	1864.63	20.00	39.90	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6556	J-3542	Forest	TRUE	1.00	1863.83	1.68	1864.51	20.00	40.95	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6557	J-3543	Forest	TRUE	1.00	1863.88	1.48	1864.35	20.00	39.35	20.00	20.01	J-3438	(N/A)	17.18	J-1198
3372	J-1835	Forest	TRUE	1.00	1863.90	2.08	1864.98	20.00	33.47	20.00	20.00	J-1044	(N/A)	16.82	J-1198
2607	J-1402	Forest	TRUE	1.00	1863.92	1.88	1864.80	20.00	40.56	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6673	J-3612	Forest	TRUE	1.00	1863.94	1.08	1864.02	20.00	39.26	20.00	20.01	J-3438	(N/A)	17.18	J-1198
2597	J-1396	Forest	TRUE	1.00	1864.27	1.48	1864.74	20.00	20.00	20.00	21.73	J-1395	(N/A)	17.05	J-1198
3050	J-1642	Lakes	TRUE	1.00	1864.74	1.20	1864.94	20.00	20.34	20.00	20.04	J-1896	(N/A)	17.23	J-1198
5439	J-2894	Forest	TRUE	1.00	1864.80	1.48	1865.27	20.00	34.19	20.00	20.01	J-3200	(N/A)	17.17	J-1198
5440	J-2895	Forest	TRUE	1.00	1864.81	1.28	1865.09	20.00	33.78	20.00	20.01	J-3200	(N/A)	17.17	J-1198
6906	J-3750	Forest	TRUE	1.00	1865.14	1.08	1865.22	20.00	20.17	20.00	20.00	J-3914	(N/A)	17.19	J-1198
8413	J-4176	Forest	TRUE	1.00	1865.35	1.08	1865.43	20.00	20.00	20.00	24.27	J-1197	(N/A)	17.19	J-1198
2488	J-1335	Forest	TRUE	1.00	1865.81	1.68	1866.49	20.00	30.88	20.00	20.00	J-1446	(N/A)	17.17	J-1198
7561	J-4051	Forest	TRUE	1.00	1867.30	1.48	1867.78	20.00	27.91	20.00	20.00	J-3330	(N/A)	17.19	J-1198
6352	J-3423	Forest	TRUE	1.00	1867.31	1.08	1867.39	20.00	26.36	20.00	20.00	J-3330	(N/A)	17.19	J-1198
6353	J-3424	Forest	TRUE	1.00	1867.31	1.48	1867.79	20.00	25.16	20.00	20.00	J-3330	(N/A)	17.19	J-1198
4288	J-2277	Forest	TRUE	1.00	1868.41	3.09	1870.49	20.00	25.06	20.00	20.00	J-2080	(N/A)	17.16	J-1198
3051	J-1643	Lakes	TRUE	1.00	1869.19	1.89	1870.08	20.00	20.29	20.00	20.04	J-1896	(N/A)	17.23	J-1198
5208	J-2759	Forest	TRUE	1.00	1869.37	1.88	1870.25	20.00	20.01	20.00	20.45	J-2116	(N/A)	16.81	J-1198
2711	J-1463	Forest	TRUE	1.00	1869.97	1.48	1870.45	20.00	20.01	20.00	20.00	J-2565	(N/A)	17.20	J-1198
2522	J-1353	Forest	TRUE	1.00	1870.24	5.09	1874.33	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.15	J-1198
4816	J-2535	Forest	TRUE	1.00	1872.08	1.68	1872.76	20.00	20.99	20.00	20.01	J-917	(N/A)	17.19	J-1198
3240	J-1759	Forest	TRUE	1.00	1872.14	1.48	1872.62	20.00	21.51	20.00	20.00	J-917	(N/A)	17.19	J-1198
6877	J-3732	Forest	TRUE	1.00	1872.35	2.28	1873.63	20.00	38.15	20.00	20.01	J-3438	(N/A)	17.18	J-1198
6878	J-3733	Forest	TRUE	1.00	1872.40	1.48	1872.88	20.00	36.63	20.00	20.01	J-3438	(N/A)	17.18	J-1198
1190	J-623	Stewartsville	TRUE	1.00	1876.44	1.11	1876.55	20.00	61.97	20.00	20.00	J-676	(N/A)	17.23	J-1198
4894	J-2581	Stewartsville	TRUE	1.00	1876.44	1.11	1876.55	20.00	62.09	20.00	20.00	J-676	(N/A)	17.23	J-1198
3896	J-2116	Forest	TRUE	1.00	1877.75	1.88	1878.63	20.00	20.01	20.00	20.23	J-2759	(N/A)	16.81	J-1198
3758	J-2049	Forest	TRUE	1.00	1879.51	1.28	1879.79	20.00	20.00	20.00	24.11	J-1197	(N/A)	17.03	J-1198
5773	J-3086	Forest	TRUE	1.00	1879.99	1.28	1880.26	20.00	20.00	20.00	20.72	J-3087	(N/A)	16.94	J-1198
5155	J-2730	Forest	TRUE	1.00	1888.16	1.88	1889.04	20.00	20.01	20.00	20.55	J-2729	(N/A)	17.03	J-1198
2169	J-1153	Forest	TRUE	1.00	1890.96	1.48	1891.43	20.00	20.00	20.00	20.04	J-3087	(N/A)	16.94	J-1198
5774	J-3087	Forest	TRUE	1.00	1891.68	1.48	1892.16	20.00	20.00	20.00	20.14	J-3086	(N/A)	16.94	J-1198
7761	J-4108	Forest	TRUE	1.00	1891.81	2.08	1892.89	20.00	34.63	20.00	20.00	J-4116	(N/A)	17.19	J-1198
6818	J-3697	Forest	TRUE	1.00	1891.83	1.48	1892.31	20.00	33.25	20.00	20.00	J-4116	(N/A)	17.19	J-1198
7473	J-4018	Forest	TRUE	1.00	1891.84	1.68	1892.52	20.00	32.67	20.00	20.00	J-4116	(N/A)	17.19	J-1198
6819	J-3698	Forest	TRUE	1.00	1891.84	1.48	1892.32	20.00	31.80	20.00	20.00	J-4116	(N/A)	17.19	J-1198
7474	J-4019	Forest	TRUE	1.00	1891.85	1.48	1892.32	20.00	31.85	20.00	20.00	J-4116	(N/A)	17.19	J-1198
6713	J-3635	Forest	TRUE	1.00	1891.86	1.88	1892.74	20.00	31.78	20.00	20.00	J-4116	(N/A)	17.19	J-1198
6714	J-3636	Forest	TRUE	1.00	1891.86	1.48	1892.34	20.00	30.42	20.00	20.00	J-4116	(N/A)	17.19	J-1198
7716	J-4097	Forest	TRUE	1.00	1891.87	1.68	1892.55	20.00	29.56	20.00	20.00	J-4116	(N/A)	17.19	J-1198
7795	J-4119	Forest	TRUE	1.00	1894.26	2.28	1895.54	20.00	20.05	20.00	21.37	J-3804	(N/A)	16.94	J-1198
6728	J-3644	Forest	TRUE	1.00	1894.35	1.28	1894.63	20.00	20.22	20.00	20.04	J-4119	(N/A)	16.94	J-1198
6729	J-3645	Forest	TRUE	1.00	1894.46	1.88	1895.34	20.00	21.31	20.00	20.03	J-4119	(N/A)	16.94	J-1198
7115	J-3868	Forest	TRUE	1.00	1894.47	1.08	1894.55	20.00	21.35	20.00	20.03	J-4119	(N/A)	16.94	J-1198
891	J-500	Forest	TRUE	1.00	1895.03	1.88	1895.91	20.00	21.72	20.00	20.00	J-2919	(N/A)	17.16	J-1198
3829	J-2083	Forest	TRUE	1.00	1895.18	1.88	1896.06	20.00	20.47	20.00	20.03	J-3829	(N/A)	17.03	J-1198
7946	J-4148	Forest	TRUE	1.00	1897.12	1.48	1897.60	20.00	29.93	20.00	20.00	J-3204	(N/A)	17.16	J-1198
5154	J-2729	Forest	TRUE	1.00	1897.51	1.48	1897.98	20.00	20.02	20.00	20.15	J-2730	(N/A)	17.03	J-1198
620	J-355	Forest	TRUE	1.00	1898.02	1.08	1898.10	20.00	30.10	20.00	20.00	J-941	(N/A)	17.16	J-1198
5709	J-3049	Forest	TRUE	1.00	1898.03	1.08	1898.10	20.00	29.22	20.00	20.00	J-941	(N/A)	17.16	J-1198
4558	J-2391	Forest	TRUE	1.00	1898.13	1.48	1898.60	20.00	20.55	20.00	20.04	J-2121	(N/A)	17.05	J-1198
3742	J-2042	Forest	TRUE	1.00	1898.24	1.48	1898.72	20.00	21.04	20.00	20.02	J-2121	(N/A)	17.05	J-1198
3828	J-2082	Forest	TRUE	1.00	1899.44	2.28	1900.72	20.00	20.01	20.00	20.61	J-2729	(N/A)	17.03	J-1198
4617	J-2426	Forest	TRUE	1.00	1901.93	1.88	1902.81	20.00	20.75	20.00	20.03	J-2046	(N/A)	17.05	J-1198
3737	J-2039	Forest	TRUE	1.00	1902.04	1.68	1902.72	20.00	21.22	20.00	20.02	J-2046	(N/A)	17.05	J-1198
3546	J-1933	Forest	TRUE	1.00	1907.92	3.69	1910.61	20.00	20.00	20.00	20.8				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4093	J-2205	Forest	TRUE	1.00	1923.08	1.68	1923.76	20.00	20.00	20.00	24.08	J-1197	(N/A)	17.00	J-1198
3507	J-1912	Forest	TRUE	1.00	1923.55	1.48	1924.03	20.00	20.96	20.00	20.00	J-3174	(N/A)	17.16	J-1198
4702	J-2472	Forest	TRUE	1.00	1923.55	1.88	1924.43	20.00	20.35	20.00	20.00	J-3174	(N/A)	17.16	J-1198
5236	J-2776	Forest	TRUE	1.00	1925.08	1.88	1925.96	20.00	22.48	20.00	20.00	J-2874	(N/A)	17.17	J-1198
5237	J-2777	Forest	TRUE	1.00	1925.08	1.68	1925.76	20.00	21.95	20.00	20.00	J-2874	(N/A)	17.17	J-1198
532	J-302	Forest	TRUE	1.00	1927.17	1.28	1927.45	20.00	33.47	20.00	20.01	J-2919	(N/A)	17.16	J-1198
7056	J-3835	Forest	TRUE	1.00	1928.50	2.28	1929.79	20.00	20.00	20.00	22.77	J-2919	(N/A)	17.16	J-1198
1981	J-1042	Forest	TRUE	1.00	1928.66	1.08	1928.73	20.00	23.42	20.00	20.02	J-3	(N/A)	16.80	J-1198
531	J-301	Forest	TRUE	1.00	1929.16	1.48	1929.64	20.00	32.13	20.00	20.01	J-2919	(N/A)	17.16	J-1198
3371	J-1834	Forest	TRUE	1.00	1932.22	1.08	1932.29	20.00	32.72	20.00	20.00	J-1044	(N/A)	16.79	J-1198
6793	J-3683	Forest	TRUE	1.00	1932.22	1.08	1932.30	20.00	32.25	20.00	20.00	J-1044	(N/A)	16.79	J-1198
6490	J-3503	Forest	TRUE	1.00	1932.84	1.48	1933.32	20.00	27.50	20.00	20.01	J-2493	(N/A)	17.16	J-1198
1222	J-639	Forest	TRUE	1.00	1933.18	1.68	1933.86	20.00	28.55	20.00	20.00	J-2493	(N/A)	17.16	J-1198
2308	J-1237	Forest	TRUE	1.00	1935.51	2.48	1936.99	20.00	22.87	20.00	20.00	J-1238	(N/A)	17.20	J-1198
5883	J-3148	Forest	TRUE	1.00	1935.51	1.48	1935.99	20.00	21.77	20.00	20.00	J-1238	(N/A)	17.20	J-1198
4985	J-2633	Forest	TRUE	1.00	1936.29	2.28	1937.57	20.00	25.47	20.00	20.01	J-3174	(N/A)	17.16	J-1198
2863	J-1552	Forest	TRUE	1.00	1936.53	1.88	1937.41	20.00	20.00	20.00	20.93	J-1717	(N/A)	17.04	J-1198
4984	J-2632	Forest	TRUE	1.00	1936.72	1.28	1936.99	20.00	25.99	20.00	20.00	J-3174	(N/A)	17.16	J-1198
3434	J-1869	Forest	TRUE	1.00	1937.12	1.48	1937.59	20.00	20.00	20.00	20.72	J-3491	(N/A)	17.15	J-1198
675	J-390	Forest	TRUE	1.00	1938.25	1.08	1938.33	20.00	26.69	20.00	20.00	J-3174	(N/A)	17.16	J-1198
2802	J-1517	Forest	TRUE	1.00	1940.11	2.88	1942.00	20.00	24.24	20.00	20.01	J-1516	(N/A)	17.05	J-1198
4633	J-2435	Forest	TRUE	1.00	1940.27	1.48	1940.75	20.00	22.16	20.00	20.00	J-4167	(N/A)	17.04	J-1198
7426	J-4002	Forest	TRUE	1.00	1940.27	2.68	1941.96	20.00	22.54	20.00	20.00	J-4167	(N/A)	17.04	J-1198
4634	J-2436	Forest	TRUE	1.00	1940.28	1.68	1940.95	20.00	22.31	20.00	20.00	J-4167	(N/A)	17.04	J-1198
1121	J-597	Forest	TRUE	1.00	1941.47	1.28	1941.75	20.00	25.17	20.00	20.00	J-2919	(N/A)	17.16	J-1198
6575	J-3554	Forest	TRUE	1.00	1941.47	1.68	1942.15	20.00	23.85	20.00	20.00	J-2919	(N/A)	17.16	J-1198
5261	J-2791	Forest	TRUE	1.00	1941.97	1.68	1942.64	20.00	20.00	20.00	20.41	J-1717	(N/A)	17.04	J-1198
5397	J-2871	Forest	TRUE	1.00	1943.71	4.49	1947.20	20.00	20.00	20.00	20.25	J-3174	(N/A)	17.16	J-1198
4492	J-2353	Forest	TRUE	1.00	1945.06	1.28	1945.34	20.00	20.00	20.00	20.28	J-2148	(N/A)	17.15	J-1198
5307	J-2817	Forest	TRUE	1.00	1945.41	1.68	1946.09	20.00	20.00	20.00	20.02	J-2818	(N/A)	17.18	J-1198
3172	J-1717	Forest	TRUE	1.00	1946.15	1.08	1946.23	20.00	20.00	20.00	20.27	J-1552	(N/A)	17.04	J-1198
2275	J-1217	Forest	TRUE	1.00	1946.57	1.88	1947.45	20.00	20.00	20.00	20.12	J-2820	(N/A)	17.19	J-1198
6649	J-3598	Forest	TRUE	1.00	1948.78	1.48	1949.25	20.00	20.08	20.00	20.86	J-3571	(N/A)	16.92	J-1198
6603	J-3570	Forest	TRUE	1.00	1949.17	1.08	1949.24	20.00	24.17	20.00	20.00	J-2919	(N/A)	17.15	J-1198
1152	J-608	Forest	TRUE	1.00	1949.17	1.28	1949.45	20.00	25.70	20.00	20.00	J-2919	(N/A)	17.15	J-1198
3966	J-2148	Forest	TRUE	1.00	1950.25	1.08	1950.32	20.00	20.00	20.00	20.03	J-2353	(N/A)	17.15	J-1198
4582	J-2406	Forest	TRUE	1.00	1950.31	2.28	1951.60	20.00	20.01	20.00	20.37	J-2405	(N/A)	17.15	J-1198
5828	J-3117	Forest	TRUE	1.00	1950.64	1.08	1950.72	20.00	25.27	20.00	20.00	J-3204	(N/A)	17.15	J-1198
5829	J-3118	Forest	TRUE	1.00	1950.67	1.28	1950.95	20.00	24.55	20.00	20.00	J-3204	(N/A)	17.15	J-1198
1196	J-626	Stewartsville	TRUE	1.00	1955.80	1.11	1955.91	20.00	58.62	20.00	20.00	J-676	(N/A)	17.23	J-1198
5263	J-2792	Stewartsville	TRUE	1.00	1955.80	1.11	1955.91	20.00	57.79	20.00	20.00	J-676	(N/A)	17.23	J-1198
5396	J-2870	Forest	TRUE	1.00	1955.82	3.89	1958.71	20.00	20.56	20.00	20.00	J-3174	(N/A)	17.16	J-1198
674	J-389	Forest	TRUE	1.00	1955.82	1.28	1956.10	20.00	27.94	20.00	20.00	J-3174	(N/A)	17.16	J-1198
6650	J-3599	Forest	TRUE	1.00	1955.92	2.68	1957.60	20.00	20.92	20.00	20.05	J-3571	(N/A)	16.92	J-1198
5104	J-2702	Forest	TRUE	1.00	1955.97	1.68	1956.65	20.00	23.22	20.00	20.00	J-3954	(N/A)	17.08	J-1198
5103	J-2701	Forest	TRUE	1.00	1955.98	1.68	1956.66	20.00	24.00	20.00	20.00	J-3954	(N/A)	17.08	J-1198
4581	J-2405	Forest	TRUE	1.00	1956.23	2.08	1957.31	20.00	20.01	20.00	20.05	J-2406	(N/A)	17.15	J-1198
7671	J-4084	Forest	TRUE	1.00	1956.98	3.49	1959.47	20.00	25.66	20.00	20.00	J-1167	(N/A)	17.18	J-1198
6530	J-3526	Forest	TRUE	1.00	1956.99	1.48	1957.47	20.00	24.44	20.00	20.00	J-1167	(N/A)	17.18	J-1198
2163	J-1149	Forest	TRUE	1.00	1957.00	1.88	1957.88	20.00	23.11	20.00	20.00	J-1167	(N/A)	17.18	J-1198
6531	J-3527	Forest	TRUE	1.00	1957.00	1.48	1957.47	20.00	22.72	20.00	20.00	J-1167	(N/A)	17.18	J-1198
6641	J-3593	Forest	TRUE	1.00	1957.64	2.48	1959.12	20.00	53.21	20.00	20.00	J-3438	(N/A)	17.17	J-1198
6642	J-3594	Forest	TRUE	1.00	1957.64	2.48	1959.12	20.00	53.08	20.00	20.00	J-3438	(N/A)	17.17	J-1198
4749	J-2499	Forest	TRUE	1.00	1958.15	1.08	1958.22	20.00	23.22	20.00	20.02	J-3	(N/A)	16.79	J-1198
3327	J-1810	Forest	TRUE	1.00	1958.21	1.08	1958.29	20.00	23.97	20.00	20.01	J-3	(N/A)	16.79	J-1198
3712	J-2025	Forest	TRUE	1.00	1960.73	2.88	1962.62	20.00	21.24	20.00	20.01	J-1378	(N/A)	17.04	J-1198
5988	J-3206	Forest	TRUE	1.00	1960.85	1.08	1960.93	20.00	27.53	20.00	20.00	J-3204	(N/A)	17.16	J-1198
5989	J-3207	Forest	TRUE	1.00	1960.89	1.88	1961.77	20.00	26.50	20.00	20.00	J-3204	(N/A)	17.16	J-1198
6139	J-3296	Forest	TRUE	1.00	1961.67	3.49	1964.16	20.00	25.30	20.00	20.00	J-2219	(N/A)	17.19	J-1198
6140	J-3297	Forest	TRUE	1.00	1961.67	1.08	1961.75	20.00	23.98	20.00	20.00	J-2219	(N/A)	17.19	J-1198
3469	J-1889	Forest	TRUE	1.00	1965.14	2.28	1966.42	20.00	20.47	20.00	20.00	J-2033	(N/A)	17.15	J-1198
4601	J-2417	Lakes	TRUE	1.00	1965.62	1.37	1965.99	20.00	21.81	20.00	20.01	J-2188	(N/A)	17.23	J-1198
7340	J-3970	Forest	TRUE	1.00	1965.68	1.08	1965.76	20.00	21.21	20.00	20.04	J-3571	(N/A)	16.91	J-1198
4056	J-2187	Lakes	TRUE	1.00	1965.72	2.41	1967.13	20.00	22.27	20.00	20.00	J-2188	(N/A)	17.23	J-1198
7339	J-3969	Forest	TRUE	1.00	1965.73	1.48	1966.21	20.00	21.67	20.00	20.04	J-3571	(N/A)	16.91	J-1198
5743	J-3069	Forest	TRUE	1.00	1967.17	1.08	1967.25	20.00	20.00	20.00	20.99	J-1982	(N/A)	17.02	J-1198
8114	J-4168	Forest	TRUE	1.00	1967.37	1.28	1967.65	20.00	20.01	20.00	24.23	J-1197	(N/A)	17.15	J-1198
6755	J-3660	Forest	TRUE	1.00	1967.68	1.88	1968.56	20.00	20.00	20.00	21.28	J-1715	(N/A)	17.19	J-1198
5160	J-2733	Forest	TRUE	1.00	1968.47	1.48	1968.95	20.00	20.01	20.00	20.73	J-2093	(N/A)	17.15	J-1198
6807	J-3691	Forest	TRUE	1.00	1970.66	1.88	1971.54	20.00	20.00	20.00	21.97	J-1932	(N/A)	17.03	J-1198
1831	J-944	Forest	TRUE	1.00	1971.00	1.08	1971.08	20.00	20.01	20.00	21.02	J-1715	(N/A)	17.19	J-1198
4771	J-2511	Forest	TRUE	1.00	1971.72	1.08	1971.80	20.00	20.00	20.00	20.19	J-1906	(N/A)	17.08	J-1198
5455	J-2903	Forest	TRUE	1.00	1973.68	1.28	1973.96	20.00	20.02	20.00	20.77	J-3901	(N/A)	17.19	J-1198
5760	J-3079	Forest	TRUE	1.00	1974.62	1.88	1975.50	20.00	53.18	20.00	20.00	J-3200	(N/A)	17.17	J-1198
5761	J-3080	Forest	TRUE	1.00	1974.62	1.48	1975.10	20.00	52.41	20.00	20.00	J-3200	(N/A)	17.17	J-1198
1063	J-575	Forest	TRUE	1.00	1975.91	1.68	1976.59	20.00	27.64	20.00	20.00	J-2919	(N/A)	17.16	J-1198
4928	J-2600	Forest	TRUE	1.00	1977.26	1.08	1977.34	20.00	37.19	20.00	20.00	J-941	(N/A)	17.15	J-1198
985	J-540	Forest	TRUE	1.00	1977.27	1.88	1978.15	20.00	37.30	20.00	20.00	J-941	(N/A)	17.15	J-1198
3497	J-1906	Forest	TRUE	1.00	1977.52	1.28	1977.80	20.00	20.00	20.00	20.33	J-25			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
268	J-135	Lakes	TRUE	1.00	1995.77	1.20	1995.97	20.00	63.90	20.00	20.00	J-2323	(N/A)	17.23	J-1198
270	J-136	Lakes	TRUE	1.00	1995.77	1.20	1995.97	20.00	63.88	20.00	20.00	J-2323	(N/A)	17.23	J-1198
5889	J-3151	Lakes	TRUE	1.00	1995.77	1.20	1995.97	20.00	63.58	20.00	20.00	J-2323	(N/A)	17.23	J-1198
8373	J-4174	Forest	TRUE	1.00	2003.13	2.68	2004.82	20.00	20.01	20.00	24.25	J-1197	(N/A)	17.17	J-1198
4042	J-2181	Forest	TRUE	1.00	2003.71	2.48	2005.20	20.00	20.27	20.00	20.03	J-3399	(N/A)	17.04	J-1198
1850	J-957	Forest	TRUE	1.00	2004.92	1.88	2005.80	20.00	20.13	20.00	20.03	J-956	(N/A)	17.04	J-1198
1852	J-958	Forest	TRUE	1.00	2005.96	1.08	2006.04	20.00	20.01	20.00	21.74	J-959	(N/A)	17.18	J-1198
2427	J-1300	Lakes	TRUE	1.00	2006.72	1.20	2006.92	20.00	21.36	20.00	20.00	J-1575	(N/A)	17.23	J-1198
447	J-249	Forest	TRUE	1.00	2006.87	1.28	2007.15	20.00	34.72	20.00	20.01	J-2919	(N/A)	17.15	J-1198
5575	J-2971	Forest	TRUE	1.00	2006.98	1.28	2007.26	20.00	33.86	20.00	20.01	J-2919	(N/A)	17.15	J-1198
446	J-248	Forest	TRUE	1.00	2009.98	1.28	2010.25	20.00	34.96	20.00	20.01	J-2919	(N/A)	17.15	J-1198
6893	J-3742	Forest	TRUE	1.00	2010.70	1.08	2010.77	20.00	33.87	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5898	J-3156	Forest	TRUE	1.00	2010.70	1.08	2010.78	20.00	32.58	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6892	J-3741	Forest	TRUE	1.00	2010.70	3.09	2012.78	20.00	35.89	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5897	J-3155	Forest	TRUE	1.00	2010.70	1.88	2011.58	20.00	33.81	20.00	20.00	J-2919	(N/A)	17.15	J-1198
4579	J-2404	Forest	TRUE	1.00	2010.71	2.08	2011.79	20.00	39.57	20.00	20.00	J-2919	(N/A)	17.15	J-1198
4578	J-2403	Forest	TRUE	1.00	2010.71	1.68	2011.39	20.00	40.04	20.00	20.00	J-2919	(N/A)	17.15	J-1198
7100	J-3859	Forest	TRUE	1.00	2010.71	1.68	2011.39	20.00	35.48	20.00	20.00	J-2919	(N/A)	17.15	J-1198
7101	J-3860	Forest	TRUE	1.00	2010.71	1.48	2011.19	20.00	35.45	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6889	J-3739	Forest	TRUE	1.00	2015.43	3.09	2017.51	20.00	29.19	20.00	20.00	J-4116	(N/A)	17.19	J-1198
5310	J-2819	Forest	TRUE	1.00	2015.44	1.68	2016.12	20.00	20.00	20.00	20.56	J-2282	(N/A)	17.15	J-1198
6890	J-3740	Forest	TRUE	1.00	2015.44	1.48	2015.92	20.00	27.38	20.00	20.00	J-4116	(N/A)	17.19	J-1198
6410	J-3457	Forest	TRUE	1.00	2016.01	1.48	2016.49	20.00	20.00	20.00	21.30	J-1674	(N/A)	17.02	J-1198
6739	J-3650	Forest	TRUE	1.00	2021.15	1.08	2021.22	20.00	21.97	20.00	20.04	J-2224	(N/A)	16.76	J-1198
6740	J-3651	Forest	TRUE	1.00	2021.24	1.88	2022.12	20.00	23.49	20.00	20.03	J-2224	(N/A)	16.76	J-1198
3100	J-1674	Forest	TRUE	1.00	2021.80	1.48	2022.28	20.00	20.00	20.00	20.83	J-3457	(N/A)	17.02	J-1198
7546	J-4046	Forest	TRUE	1.00	2022.19	1.08	2022.27	20.00	20.00	20.00	21.01	J-3922	(N/A)	16.91	J-1198
5498	J-2927	Forest	TRUE	1.00	2022.27	1.68	2022.95	20.00	25.89	20.00	20.00	J-2919	(N/A)	17.15	J-1198
772	J-440	Forest	TRUE	1.00	2022.27	1.28	2022.55	20.00	26.96	20.00	20.00	J-2919	(N/A)	17.15	J-1198
4299	J-2282	Forest	TRUE	1.00	2023.03	3.49	2025.51	20.00	20.00	20.00	20.20	J-2819	(N/A)	17.15	J-1198
2674	J-1440	Forest	TRUE	1.00	2024.16	1.28	2024.44	20.00	21.10	20.00	20.00	J-1441	(N/A)	17.08	J-1198
6952	J-3776	Lakes	TRUE	1.00	2025.95	1.29	2026.24	20.00	20.00	20.00	22.32	J-1916	(N/A)	17.23	J-1198
2709	J-1462	Forest	TRUE	1.00	2029.16	1.48	2029.64	20.00	26.77	20.00	20.00	J-1461	(N/A)	17.08	J-1198
2512	J-1347	Forest	TRUE	1.00	2029.20	1.28	2029.47	20.00	20.01	20.00	24.22	J-1197	(N/A)	17.14	J-1198
5090	J-2694	Forest	TRUE	1.00	2030.62	1.48	2031.10	20.00	20.01	20.00	20.90	J-1827	(N/A)	17.18	J-1198
5699	J-3043	Forest	TRUE	1.00	2031.73	1.08	2031.81	20.00	29.18	20.00	20.01	J-3204	(N/A)	17.15	J-1198
5700	J-3044	Forest	TRUE	1.00	2031.80	1.48	2032.28	20.00	27.88	20.00	20.00	J-3204	(N/A)	17.15	J-1198
6512	J-3516	Forest	TRUE	1.00	2031.81	1.88	2032.69	20.00	24.80	20.00	20.00	J-3425	(N/A)	17.18	J-1198
6511	J-3515	Forest	TRUE	1.00	2031.82	1.08	2031.89	20.00	22.92	20.00	20.00	J-3425	(N/A)	17.18	J-1198
3099	J-1673	Forest	TRUE	1.00	2031.85	1.48	2032.33	20.00	20.00	20.00	20.00	J-3457	(N/A)	17.02	J-1198
2765	J-1495	Forest	TRUE	1.00	2032.89	2.28	2034.17	20.00	20.17	20.00	20.00	J-3835	(N/A)	17.16	J-1198
773	J-441	Forest	TRUE	1.00	2032.99	2.88	2034.88	20.00	28.94	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5689	J-3037	Forest	TRUE	1.00	2033.51	3.09	2035.59	20.00	20.00	20.00	20.69	J-3922	(N/A)	16.91	J-1198
5924	J-3170	Forest	TRUE	1.00	2033.75	1.68	2034.43	20.00	20.00	20.00	21.03	J-3171	(N/A)	17.03	J-1198
6001	J-3213	Forest	TRUE	1.00	2036.49	1.08	2036.57	20.00	26.68	20.00	20.00	J-3204	(N/A)	17.16	J-1198
6002	J-3214	Forest	TRUE	1.00	2036.53	1.68	2037.20	20.00	25.30	20.00	20.00	J-3204	(N/A)	17.16	J-1198
6989	J-3797	Forest	TRUE	1.00	2037.07	1.68	2037.75	20.00	20.00	20.00	22.90	J-3928	(N/A)	17.17	J-1198
7986	J-4156	Forest	TRUE	1.00	2038.87	3.09	2040.95	20.00	20.02	20.00	22.72	J-2836	(N/A)	17.18	J-1198
4991	J-2637	Forest	TRUE	1.00	2039.32	1.68	2040.00	20.00	20.02	20.00	20.62	J-2636	(N/A)	16.89	J-1198
7223	J-3922	Forest	TRUE	1.00	2040.64	1.88	2041.52	20.00	20.00	20.00	20.39	J-3038	(N/A)	16.91	J-1198
3357	J-1827	Forest	TRUE	1.00	2041.49	2.68	2043.17	20.00	20.15	20.00	20.03	J-2694	(N/A)	17.18	J-1198
7235	J-3928	Forest	TRUE	1.00	2041.62	1.08	2041.70	20.00	20.00	20.00	20.65	J-3927	(N/A)	17.17	J-1198
3514	J-1916	Lakes	TRUE	1.00	2044.00	1.20	2044.20	20.00	20.40	20.00	20.05	J-3776	(N/A)	17.23	J-1198
4990	J-2636	Forest	TRUE	1.00	2044.59	1.08	2044.67	20.00	20.06	20.00	20.13	J-2637	(N/A)	16.89	J-1198
3717	J-2028	Forest	TRUE	1.00	2044.82	1.48	2045.30	20.00	20.97	20.00	20.02	J-3171	(N/A)	17.03	J-1198
5925	J-3171	Forest	TRUE	1.00	2044.99	1.88	2045.87	20.00	20.00	20.00	20.08	J-3170	(N/A)	17.03	J-1198
8513	J-4209	Forest	TRUE	1.00	2045.01	1.68	2045.69	20.00	21.40	20.00	20.00	J-3171	(N/A)	17.03	J-1198
5690	J-3038	Forest	TRUE	1.00	2045.58	1.48	2046.06	20.00	20.12	20.00	20.03	J-3922	(N/A)	16.91	J-1198
4045	J-2183	Lakes	TRUE	1.00	2047.45	1.20	2047.65	20.00	23.12	20.00	20.00	J-1586	(N/A)	17.23	J-1198
7234	J-3927	Forest	TRUE	1.00	2048.75	1.28	2049.03	20.00	20.32	20.00	20.00	J-3928	(N/A)	17.17	J-1198
3336	J-1815	Forest	TRUE	1.00	2050.22	1.48	2050.70	20.00	20.01	20.00	20.05	J-958	(N/A)	17.18	J-1198
5442	J-2896	Forest	TRUE	1.00	2051.15	2.28	2052.43	20.00	20.00	20.00	20.94	J-2256	(N/A)	17.18	J-1198
2876	J-1558	Forest	TRUE	1.00	2051.82	1.48	2052.30	20.00	20.00	20.00	21.30	J-2456	(N/A)	17.03	J-1198
7215	J-3917	Lakes	TRUE	1.00	2052.14	1.20	2052.34	20.00	39.66	20.00	20.05	J-2323	(N/A)	17.23	J-1198
7216	J-3918	Lakes	TRUE	1.00	2052.20	1.20	2052.40	20.00	39.01	20.00	20.05	J-2323	(N/A)	17.23	J-1198
4677	J-2459	Lakes	TRUE	1.00	2052.24	1.20	2052.44	20.00	38.67	20.00	20.05	J-2323	(N/A)	17.23	J-1198
4676	J-2458	Lakes	TRUE	1.00	2052.32	1.20	2052.52	20.00	37.92	20.00	20.04	J-2323	(N/A)	17.23	J-1198
3850	J-2094	Forest	TRUE	1.00	2052.40	1.08	2052.48	20.00	21.74	20.00	20.00	J-610	(N/A)	17.14	J-1198
5734	J-3064	Forest	TRUE	1.00	2052.40	1.28	2052.68	20.00	20.76	20.00	20.00	J-610	(N/A)	17.14	J-1198
7792	J-4118	Forest	TRUE	1.00	2052.57	1.48	2053.05	20.00	20.01	20.00	20.58	J-4189	(N/A)	17.14	J-1198
8475	J-4189	Forest	TRUE	1.00	2052.74	1.28	2053.02	20.00	20.57	20.00	20.00	J-4118	(N/A)	17.14	J-1198
7263	J-3941	Lakes	TRUE	1.00	2052.94	1.20	2053.14	20.00	31.37	20.00	20.00	J-2323	(N/A)	17.23	J-1198
6076	J-3259	Lakes	TRUE	1.00	2052.94	1.20	2053.14	20.00	31.21	20.00	20.00	J-2323	(N/A)	17.23	J-1198
7262	J-3940	Lakes	TRUE	1.00	2052.94	1.37	2053.31	20.00	31.16	20.00	20.00	J-2323	(N/A)	17.23	J-1198
211	J-97	Lakes	TRUE	1.00	2052.94	1.20	2053.14	20.00	66.18	20.00	20.00	J-2323	(N/A)	17.23	J-1198
6075	J-3258	Lakes	TRUE	1.00	2052.94	1.20	2053.14	20.00	30.42	20.00	20.00	J-2323	(N/A)	17.23	J-1198
210	J-96	Lakes	TRUE	1.00	2053.01	1.20	2053.21	20.00	66.20	20.00	20.00	J-2323	(N/A)	17.23	J-1198
1108	J-593	Stewartsville	TRUE	1.00	2054.09	1.11	2054.20	20.00	71.91	20.00	20.00	J-676	(N/A)	17.23	J-1198
4898	J-2583	Stewartsville	TRUE	1.00	2054.09	1.11	2054.21	20.00	71.46	20.00	20.00	J-			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3702	J-2020	Forest	TRUE	1.00	2077.17	1.48	2077.65	20.00	20.00	20.00	24.08	J-1197	(N/A)	17.00	J-1198
7831	J-4129	Forest	TRUE	1.00	2084.66	1.68	2085.34	20.00	20.00	20.00	23.46	J-3823	(N/A)	17.08	J-1198
1347	J-686	Forest	TRUE	1.00	2086.74	3.49	2089.22	20.00	34.02	20.00	20.01	J-2919	(N/A)	17.15	J-1198
3543	J-1931	Forest	TRUE	1.00	2086.74	1.48	2087.22	20.00	20.00	20.00	20.13	J-3946	(N/A)	17.01	J-1198
2732	J-1475	Forest	TRUE	1.00	2087.19	1.68	2087.87	20.00	22.41	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5641	J-3009	Forest	TRUE	1.00	2087.23	1.48	2087.71	20.00	21.51	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5870	J-3141	Forest	TRUE	1.00	2087.39	1.48	2087.87	20.00	20.00	20.00	20.83	J-3008	(N/A)	17.17	J-1198
7277	J-3946	Forest	TRUE	1.00	2088.27	2.68	2089.96	20.00	20.00	20.00	20.28	J-1931	(N/A)	17.01	J-1198
5750	J-3073	Lakes	TRUE	1.00	2089.87	1.20	2090.07	20.00	21.43	20.00	20.06	J-1586	(N/A)	17.23	J-1198
5751	J-3074	Lakes	TRUE	1.00	2090.54	1.20	2090.74	20.00	20.19	20.00	20.00	J-1586	(N/A)	17.23	J-1198
6753	J-3659	Forest	TRUE	1.00	2090.76	1.48	2091.23	20.00	39.01	20.00	20.01	J-941	(N/A)	17.15	J-1198
729	J-419	Forest	TRUE	1.00	2091.04	2.28	2092.32	20.00	40.44	20.00	20.00	J-941	(N/A)	17.15	J-1198
3633	J-1981	Forest	TRUE	1.00	2092.08	1.88	2092.96	20.00	26.63	20.00	20.00	J-2108	(N/A)	17.00	J-1198
7036	J-3824	Forest	TRUE	1.00	2093.21	1.68	2093.89	20.00	20.00	20.00	22.86	J-3823	(N/A)	17.08	J-1198
6684	J-3618	Forest	TRUE	1.00	2095.83	1.28	2096.11	20.00	23.57	20.00	20.00	J-3204	(N/A)	17.15	J-1198
6685	J-3619	Forest	TRUE	1.00	2095.84	1.28	2096.12	20.00	22.26	20.00	20.00	J-3204	(N/A)	17.15	J-1198
6988	J-3796	Forest	TRUE	1.00	2096.14	3.09	2098.23	20.00	20.32	20.00	20.00	J-3797	(N/A)	17.17	J-1198
6332	J-3411	Forest	TRUE	1.00	2101.26	1.08	2101.34	20.00	20.02	20.00	21.06	J-3410	(N/A)	17.14	J-1198
2593	J-1393	Forest	TRUE	1.00	2101.76	1.48	2102.24	20.00	22.11	20.00	20.00	J-1394	(N/A)	17.05	J-1198
5265	J-2793	Forest	TRUE	1.00	2104.47	1.08	2104.55	20.00	20.02	20.00	20.46	J-2179	(N/A)	17.14	J-1198
2722	J-1469	Forest	TRUE	1.00	2104.77	1.08	2104.85	20.00	20.00	20.00	22.88	J-1816	(N/A)	16.87	J-1198
6286	J-3384	Forest	TRUE	1.00	2105.52	1.88	2106.40	20.00	20.34	20.00	20.00	J-3383	(N/A)	17.18	J-1198
3552	J-1936	Forest	TRUE	1.00	2106.40	1.28	2106.68	20.00	41.08	20.00	20.01	J-1532	(N/A)	17.07	J-1198
5065	J-2681	Forest	TRUE	1.00	2106.77	3.09	2108.85	20.00	40.24	20.00	20.00	J-1532	(N/A)	17.07	J-1198
518	J-293	Forest	TRUE	1.00	2108.11	1.48	2108.59	20.00	42.08	20.00	20.00	J-2919	(N/A)	17.14	J-1198
5757	J-3077	Forest	TRUE	1.00	2110.02	1.48	2110.49	20.00	21.45	20.00	20.00	J-1394	(N/A)	17.04	J-1198
5758	J-3078	Forest	TRUE	1.00	2110.12	1.68	2110.80	20.00	22.16	20.00	20.00	J-1394	(N/A)	17.04	J-1198
5824	J-3115	Forest	TRUE	1.00	2110.16	1.88	2111.04	20.00	25.90	20.00	20.01	J-2493	(N/A)	17.16	J-1198
948	J-523	Forest	TRUE	1.00	2110.46	1.08	2110.54	20.00	27.51	20.00	20.00	J-2493	(N/A)	17.16	J-1198
5869	J-3140	Forest	TRUE	1.00	2110.49	2.08	2111.57	20.00	20.39	20.00	20.00	J-3008	(N/A)	17.17	J-1198
4038	J-2179	Forest	TRUE	1.00	2112.07	3.09	2114.16	20.00	20.00	20.00	20.38	J-2793	(N/A)	17.14	J-1198
5322	J-2826	Forest	TRUE	1.00	2113.16	1.08	2113.23	20.00	20.35	20.00	20.02	J-2113	(N/A)	13.87	J-1198
5323	J-2827	Forest	TRUE	1.00	2113.29	2.28	2114.57	20.00	21.17	20.00	20.01	J-2113	(N/A)	13.87	J-1198
3567	J-1945	Forest	TRUE	1.00	2114.01	2.88	2115.90	20.00	33.98	20.00	20.00	J-2212	(N/A)	17.03	J-1198
6982	J-3793	Forest	TRUE	1.00	2114.19	1.08	2114.27	20.00	40.57	20.00	20.01	J-2919	(N/A)	17.14	J-1198
517	J-292	Forest	TRUE	1.00	2114.67	1.08	2114.74	20.00	42.67	20.00	20.00	J-2919	(N/A)	17.14	J-1198
8076	J-4166	Lakes	TRUE	1.00	2120.54	1.20	2120.74	20.00	20.34	20.00	20.05	J-1917	(N/A)	17.23	J-1198
5376	J-2858	Forest	TRUE	1.00	2120.58	1.48	2121.05	20.00	20.00	20.00	20.77	J-2859	(N/A)	16.86	J-1198
3515	J-1917	Lakes	TRUE	1.00	2121.02	1.20	2121.22	20.00	20.00	20.00	20.86	J-3776	(N/A)	17.23	J-1198
6331	J-3410	Forest	TRUE	1.00	2121.15	1.28	2121.43	20.00	20.02	20.00	20.26	J-3411	(N/A)	17.14	J-1198
3279	J-1784	Forest	TRUE	1.00	2124.35	1.28	2124.62	20.00	29.65	20.00	20.01	J-3204	(N/A)	17.14	J-1198
634	J-364	Forest	TRUE	1.00	2126.94	1.88	2127.82	20.00	38.93	20.00	20.01	J-941	(N/A)	17.15	J-1198
5377	J-2859	Forest	TRUE	1.00	2128.33	1.48	2128.81	20.00	20.00	20.00	20.18	J-2858	(N/A)	16.86	J-1198
4208	J-2251	Forest	TRUE	1.00	2131.18	1.88	2132.06	20.00	37.88	20.00	20.00	J-895	(N/A)	17.19	J-1198
6433	J-3470	Lakes	TRUE	1.00	2131.73	1.20	2131.93	20.00	20.00	20.00	21.23	J-3471	(N/A)	17.23	J-1198
5617	J-2995	Forest	TRUE	1.00	2132.72	1.88	2133.60	20.00	20.00	20.00	21.47	J-2246	(N/A)	17.18	J-1198
680	J-392	Stewartsville	TRUE	1.00	2133.07	1.11	2133.19	20.00	87.15	20.00	20.00	J-676	(N/A)	17.23	J-1198
4696	J-2469	Stewartsville	TRUE	1.00	2133.07	1.40	2133.48	20.00	86.51	20.00	20.00	J-676	(N/A)	17.23	J-1198
7035	J-3823	Forest	TRUE	1.00	2133.11	1.08	2133.18	20.00	20.00	20.00	21.11	J-3824	(N/A)	17.07	J-1198
3338	J-1816	Forest	TRUE	1.00	2133.47	2.68	2135.15	20.00	20.05	20.00	20.61	J-1469	(N/A)	16.86	J-1198
1303	J-675	Forest	TRUE	1.00	2135.80	2.48	2137.29	20.00	35.48	20.00	20.00	J-2919	(N/A)	17.15	J-1198
1329	J-682	Lakes	TRUE	1.00	2136.49	1.20	2136.68	20.00	98.82	20.00	20.04	J-2323	(N/A)	17.23	J-1198
6647	J-3597	Lakes	TRUE	1.00	2136.56	1.20	2136.76	20.00	95.18	20.00	20.03	J-2323	(N/A)	17.23	J-1198
3278	J-1783	Forest	TRUE	1.00	2136.79	1.48	2137.27	20.00	29.46	20.00	20.01	J-3204	(N/A)	17.14	J-1198
6897	J-3744	Forest	TRUE	1.00	2136.85	1.08	2136.93	20.00	31.36	20.00	20.00	J-2729	(N/A)	17.00	J-1198
6898	J-3745	Forest	TRUE	1.00	2136.86	1.28	2137.13	20.00	31.83	20.00	20.00	J-2729	(N/A)	17.00	J-1198
6945	J-3772	Forest	TRUE	1.00	2139.62	1.08	2139.70	20.00	20.00	20.00	20.56	J-941	(N/A)	17.14	J-1198
7505	J-4029	Forest	TRUE	1.00	2143.02	5.32	2147.34	20.00	46.80	20.00	20.00	J-2919	(N/A)	17.14	J-1198
808	J-458	Forest	TRUE	1.00	2143.08	1.08	2143.16	20.00	48.29	20.00	20.00	J-2919	(N/A)	17.14	J-1198
2085	J-1100	Lakes	TRUE	1.00	2144.87	1.63	2145.51	20.00	20.00	20.00	23.86	J-1101	(N/A)	17.23	J-1198
6434	J-3471	Lakes	TRUE	1.00	2145.31	1.29	2145.60	20.00	20.00	20.00	20.21	J-3470	(N/A)	17.23	J-1198
4779	J-2515	Forest	TRUE	1.00	2147.14	2.08	2148.22	20.00	37.26	20.00	20.00	J-895	(N/A)	17.18	J-1198
4780	J-2516	Forest	TRUE	1.00	2147.14	1.48	2147.62	20.00	36.66	20.00	20.00	J-895	(N/A)	17.18	J-1198
383	J-208	Forest	TRUE	1.00	2152.46	1.08	2152.54	20.00	38.39	20.00	20.00	J-941	(N/A)	17.14	J-1198
384	J-209	Forest	TRUE	1.00	2153.75	1.08	2153.83	20.00	38.23	20.00	20.01	J-941	(N/A)	17.14	J-1198
1401	J-698	Forest	TRUE	1.00	2153.78	1.28	2154.06	20.00	37.66	20.00	20.01	J-941	(N/A)	17.14	J-1198
7533	J-4041	Forest	TRUE	1.00	2153.99	1.08	2154.06	20.00	24.35	20.00	20.00	J-2405	(N/A)	17.14	J-1198
2346	J-1258	Forest	TRUE	1.00	2154.66	1.08	2154.74	20.00	38.03	20.00	20.01	J-941	(N/A)	17.14	J-1198
591	J-338	Stewartsville	TRUE	1.00	2155.07	1.11	2155.18	20.00	92.78	20.00	20.00	J-676	(N/A)	17.23	J-1198
592	J-339	Stewartsville	TRUE	1.00	2155.07	1.11	2155.18	20.00	91.89	20.00	20.00	J-676	(N/A)	17.23	J-1198
4190	J-2246	Forest	TRUE	1.00	2155.82	2.68	2157.50	20.00	20.39	20.00	20.01	J-2995	(N/A)	17.18	J-1198
1452	J-728	Forest	TRUE	1.00	2159.12	1.08	2159.20	20.00	37.63	20.00	20.01	J-941	(N/A)	17.14	J-1198
8036	J-4160	Forest	TRUE	1.00	2159.53	1.08	2159.61	20.00	20.02	20.00	23.80	J-1197	(N/A)	16.72	J-1198
3178	J-1721	Forest	TRUE	1.00	2159.61	1.08	2159.69	20.00	24.01	20.00	20.00	J-2405	(N/A)	17.14	J-1198
3177	J-1720	Forest	TRUE	1.00	2159.61	1.68	2160.29	20.00	22.55	20.00	20.00	J-2405	(N/A)	17.14	J-1198
6784	J-3677	Forest	TRUE	1.00	2159.80	1.68	2160.48	20.00	36.34	20.00	20.01	J-3200	(N/A)	17.16	J-1198
6785	J-3678	Forest	TRUE	1.00	2159.87	1.28	2160.15	20.00	34.02	20.00	20.01	J-3200	(N/A)	17.16	J-1198
7088	J-3853	Forest	TRUE	1.00	2159.92	1.28	2160.20	20.00	26.61	20.00	20.00	J-941	(N/A)	17.14	J-1198
7768	J-4111	Forest	TRUE	1.00	2161.38	1.88	2162.26	20.00	33.52	20.00	20.00	J-2219	(N/A)		

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5366	J-2852	Forest	TRUE	1.00	2182.19	1.08	2182.27	20.00	29.29	20.00	20.00	J-2219	(N/A)	17.18	J-1198
5367	J-2853	Forest	TRUE	1.00	2182.19	1.08	2182.27	20.00	28.21	20.00	20.00	J-2219	(N/A)	17.18	J-1198
3738	J-2040	Forest	TRUE	1.00	2183.09	1.68	2183.77	20.00	20.00	20.00	20.13	J-2121	(N/A)	17.01	J-1198
540	J-307	Forest	TRUE	1.00	2184.59	1.88	2185.47	20.00	22.29	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5010	J-2648	Forest	TRUE	1.00	2184.88	2.08	2185.96	20.00	23.67	20.00	20.00	J-2405	(N/A)	17.14	J-1198
5009	J-2647	Forest	TRUE	1.00	2184.88	1.28	2185.16	20.00	22.91	20.00	20.00	J-2405	(N/A)	17.14	J-1198
6946	J-3773	Forest	TRUE	1.00	2186.07	1.08	2186.15	20.00	21.64	20.00	20.00	J-941	(N/A)	17.14	J-1198
1483	J-744	Forest	TRUE	1.00	2186.15	1.48	2186.62	20.00	24.53	20.00	20.00	J-941	(N/A)	17.14	J-1198
5737	J-3066	Forest	TRUE	1.00	2186.28	1.88	2187.16	20.00	20.00	20.00	20.03	J-3065	(N/A)	17.01	J-1198
4212	J-2253	Forest	TRUE	1.00	2189.87	2.68	2191.56	20.00	20.00	20.00	20.29	J-2939	(N/A)	17.01	J-1198
5727	J-3060	Forest	TRUE	1.00	2189.92	1.48	2190.40	20.00	20.98	20.00	20.03	J-3059	(N/A)	16.84	J-1198
5520	J-2939	Forest	TRUE	1.00	2192.38	1.68	2193.06	20.00	20.00	20.00	20.07	J-2253	(N/A)	17.01	J-1198
4891	J-2579	Forest	TRUE	1.00	2192.58	1.08	2192.66	20.00	20.11	20.00	20.01	J-2580	(N/A)	17.16	J-1198
3905	J-2120	Forest	TRUE	1.00	2193.25	1.48	2193.73	20.00	20.92	20.00	20.03	J-3059	(N/A)	16.84	J-1198
1867	J-968	Forest	TRUE	1.00	2193.79	1.88	2194.67	20.00	24.80	20.00	20.00	J-969	(N/A)	16.71	J-1198
2757	J-1490	Forest	TRUE	1.00	2193.79	1.88	2194.67	20.00	23.64	20.00	20.00	J-969	(N/A)	16.71	J-1198
5534	J-2948	Forest	TRUE	1.00	2193.79	1.08	2193.87	20.00	22.52	20.00	20.00	J-969	(N/A)	16.71	J-1198
4249	J-2264	Forest	TRUE	1.00	2194.58	2.68	2196.26	20.00	26.89	20.00	20.00	J-2219	(N/A)	17.18	J-1198
6381	J-3440	Forest	TRUE	1.00	2194.90	1.48	2195.38	20.00	31.71	20.00	20.00	J-2219	(N/A)	17.18	J-1198
6382	J-3441	Forest	TRUE	1.00	2194.91	1.28	2195.19	20.00	30.07	20.00	20.00	J-2219	(N/A)	17.18	J-1198
7900	J-4141	Forest	TRUE	1.00	2194.96	1.88	2195.84	20.00	20.00	20.00	24.25	J-1197	(N/A)	17.17	J-1198
490	J-275	Forest	TRUE	1.00	2196.20	1.08	2196.28	20.00	51.39	20.00	20.00	J-2919	(N/A)	17.13	J-1198
489	J-274	Forest	TRUE	1.00	2202.81	1.48	2203.29	20.00	51.50	20.00	20.00	J-2919	(N/A)	17.13	J-1198
6109	J-3278	Forest	TRUE	1.00	2203.11	1.08	2203.18	20.00	32.74	20.00	20.00	J-941	(N/A)	17.14	J-1198
1498	J-749	Forest	TRUE	1.00	2203.11	1.28	2203.39	20.00	33.71	20.00	20.00	J-941	(N/A)	17.14	J-1198
941	J-519	Forest	TRUE	1.00	2204.82	1.08	2204.90	20.00	25.80	20.00	20.00	J-2919	(N/A)	17.15	J-1198
2662	J-1434	Forest	TRUE	1.00	2204.96	1.88	2205.84	20.00	21.77	20.00	20.00	J-1433	(N/A)	17.06	J-1198
5195	J-2752	Forest	TRUE	1.00	2206.44	2.88	2208.32	20.00	20.00	20.00	21.08	J-2257	(N/A)	17.18	J-1198
4031	J-2176	Forest	TRUE	1.00	2206.70	1.08	2206.78	20.00	20.00	20.00	20.83	J-4024	(N/A)	17.18	J-1198
5060	J-2678	Forest	TRUE	1.00	2206.88	1.08	2206.96	20.00	20.00	20.00	21.09	J-1679	(N/A)	17.14	J-1198
3744	J-2043	Forest	TRUE	1.00	2207.41	1.08	2207.49	20.00	35.43	20.00	20.00	J-1206	(N/A)	13.61	J-1198
2086	J-1101	Lakes	TRUE	1.00	2207.68	1.46	2208.14	20.00	20.00	20.00	20.00	J-1100	(N/A)	17.23	J-1198
4010	J-2168	Forest	TRUE	1.00	2208.45	2.68	2210.13	20.00	20.31	20.00	20.00	J-2580	(N/A)	17.16	J-1198
3109	J-1680	Forest	TRUE	1.00	2210.78	1.08	2210.86	20.00	20.00	20.00	20.73	J-2678	(N/A)	17.14	J-1198
6583	J-3559	Forest	TRUE	1.00	2212.47	1.28	2212.75	20.00	20.00	20.00	21.43	J-3558	(N/A)	17.18	J-1198
1468	J-736	Forest	TRUE	1.00	2216.67	1.28	2216.94	20.00	37.58	20.00	20.01	J-941	(N/A)	17.14	J-1198
5269	J-2795	Forest	TRUE	1.00	2216.77	1.48	2217.25	20.00	36.81	20.00	20.01	J-941	(N/A)	17.14	J-1198
4222	J-2257	Forest	TRUE	1.00	2220.51	1.28	2220.78	20.00	20.21	20.00	20.03	J-2752	(N/A)	17.18	J-1198
4466	J-2338	Forest	TRUE	1.00	2224.24	1.48	2224.72	20.00	21.81	20.00	20.00	J-2253	(N/A)	17.00	J-1198
7130	J-3876	Forest	TRUE	1.00	2224.24	2.28	2225.52	20.00	22.20	20.00	20.00	J-2253	(N/A)	17.00	J-1198
2837	J-1537	Forest	TRUE	1.00	2224.24	1.48	2224.72	20.00	22.14	20.00	20.00	J-2253	(N/A)	17.00	J-1198
7489	J-4024	Forest	TRUE	1.00	2224.59	2.28	2225.87	20.00	20.00	20.00	20.99	J-4116	(N/A)	17.18	J-1198
1445	J-724	Forest	TRUE	1.00	2226.32	1.28	2226.59	20.00	39.73	20.00	20.01	J-941	(N/A)	17.14	J-1198
3108	J-1679	Forest	TRUE	1.00	2227.99	1.08	2228.07	20.00	20.21	20.00	20.01	J-2678	(N/A)	17.13	J-1198
5463	J-2908	Forest	TRUE	1.00	2229.16	2.68	2230.85	20.00	24.39	20.00	20.00	J-969	(N/A)	16.69	J-1198
5462	J-2907	Forest	TRUE	1.00	2229.16	1.88	2230.04	20.00	23.46	20.00	20.00	J-969	(N/A)	16.69	J-1198
1446	J-725	Forest	TRUE	1.00	2230.09	1.08	2230.17	20.00	41.68	20.00	20.00	J-941	(N/A)	17.14	J-1198
5145	J-2724	Forest	TRUE	1.00	2230.10	1.08	2230.18	20.00	40.58	20.00	20.00	J-941	(N/A)	17.14	J-1198
1214	J-636	Lakes	TRUE	1.00	2232.44	1.55	2232.99	20.00	94.33	20.00	20.03	J-2323	(N/A)	17.23	J-1198
6067	J-3253	Lakes	TRUE	1.00	2232.47	1.20	2232.67	20.00	93.90	20.00	20.03	J-2323	(N/A)	17.23	J-1198
6031	J-3230	Forest	TRUE	1.00	2233.94	1.48	2234.42	20.00	20.00	20.00	20.95	J-3231	(N/A)	16.83	J-1198
5319	J-2824	Forest	TRUE	1.00	2237.44	1.68	2238.12	20.00	20.00	20.00	20.81	J-2825	(N/A)	16.82	J-1198
7593	J-4058	Forest	TRUE	1.00	2237.63	2.28	2238.91	20.00	23.36	20.00	20.00	J-2253	(N/A)	17.00	J-1198
6314	J-3400	Forest	TRUE	1.00	2237.63	1.68	2238.31	20.00	22.11	20.00	20.00	J-2253	(N/A)	17.00	J-1198
6315	J-3401	Forest	TRUE	1.00	2237.63	2.48	2239.11	20.00	21.53	20.00	20.00	J-2253	(N/A)	17.00	J-1198
7758	J-4107	Forest	TRUE	1.00	2239.29	1.68	2239.96	20.00	30.64	20.00	20.00	J-4119	(N/A)	16.82	J-1198
5527	J-2944	Forest	TRUE	1.00	2241.81	1.48	2242.29	20.00	20.00	20.00	20.87	J-2253	(N/A)	17.00	J-1198
6121	J-3285	Forest	TRUE	1.00	2242.00	1.48	2242.48	20.00	33.96	20.00	20.00	J-941	(N/A)	17.14	J-1198
6122	J-3286	Forest	TRUE	1.00	2242.01	1.88	2242.89	20.00	35.28	20.00	20.00	J-941	(N/A)	17.14	J-1198
7701	J-4092	Forest	TRUE	1.00	2242.30	1.88	2243.18	20.00	22.43	20.00	20.00	J-3008	(N/A)	17.17	J-1198
1488	J-745	Forest	TRUE	1.00	2242.40	1.08	2242.48	20.00	45.44	20.00	20.00	J-941	(N/A)	17.14	J-1198
5252	J-2786	Forest	TRUE	1.00	2242.40	1.28	2242.68	20.00	44.46	20.00	20.00	J-941	(N/A)	17.14	J-1198
6228	J-3349	Forest	TRUE	1.00	2243.65	2.48	2245.13	20.00	20.00	20.00	21.14	J-3350	(N/A)	16.99	J-1198
6582	J-3558	Forest	TRUE	1.00	2243.69	2.08	2244.77	20.00	20.00	20.00	20.13	J-4024	(N/A)	17.18	J-1198
6032	J-3231	Forest	TRUE	1.00	2244.59	3.09	2246.67	20.00	20.04	20.00	20.40	J-3230	(N/A)	16.82	J-1198
5157	J-2731	Forest	TRUE	1.00	2245.01	1.08	2245.09	20.00	20.00	20.00	20.93	J-2732	(N/A)	16.82	J-1198
3918	J-2126	Forest	TRUE	1.00	2245.79	2.68	2247.47	20.00	35.53	20.00	20.00	J-941	(N/A)	17.14	J-1198
5320	J-2825	Forest	TRUE	1.00	2247.73	1.48	2248.21	20.00	20.00	20.00	20.24	J-2824	(N/A)	16.82	J-1198
5371	J-2855	Forest	TRUE	1.00	2248.42	1.48	2248.90	20.00	40.89	20.00	20.00	J-941	(N/A)	17.14	J-1198
5372	J-2856	Forest	TRUE	1.00	2248.43	1.88	2249.31	20.00	41.82	20.00	20.00	J-941	(N/A)	17.14	J-1198
1489	J-746	Forest	TRUE	1.00	2249.44	51.32	2299.76	20.00	48.90	20.00	20.01	J-941	(N/A)	17.14	J-1198
3293	J-1792	Forest	TRUE	1.00	2249.59	1.08	2249.66	20.00	39.86	20.00	20.00	J-941	(N/A)	17.14	J-1198
3292	J-1791	Forest	TRUE	1.00	2249.60	1.88	2250.48	20.00	42.56	20.00	20.00	J-941	(N/A)	17.14	J-1198
5428	J-2888	Forest	TRUE	1.00	2249.81	1.08	2249.88	20.00	48.04	20.00	20.00	J-941	(N/A)	17.14	J-1198
2500	J-1341	Forest	TRUE	1.00	2250.27	2.68	2251.95	20.00	20.00	20.00	20.19	J-941	(N/A)	17.14	J-1198
7612	J-4066	Forest	TRUE	1.00	2250.29	1.68	2250.97	20.00	42.81	20.00	20.00	J-941	(N/A)	17.14	J-1198
2900	J-1571	Forest	TRUE	1.00	2250.44	3.09	2252.53	20.00	23.90	20.00	20.00	J-1479	(N/A)	17.13	J-1198
4846	J-2553	Forest	TRUE	1.00	2251.28	2.28	2252.56	20.00	47.50	20.00	20.01	J-941	(N/A)	17.14	J-1198
6690	J-3622	Forest	TRUE	1.00	2251.48	1.68	2252.16	20.00	28.43	20.00	20.00	J-4119	(N/A)	16.82	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4037	J-2178	Forest	TRUE	1.00	2255.26	1.68	2255.94	20.00	42.89	20.00	20.00	J-941	(N/A)	17.14	J-1198
5158	J-2732	Forest	TRUE	1.00	2255.78	1.88	2256.66	20.00	20.03	20.00	20.03	J-2731	(N/A)	16.82	J-1198
5042	J-2667	Forest	TRUE	1.00	2257.37	2.88	2259.25	20.00	53.62	20.00	20.00	J-941	(N/A)	17.14	J-1198
5043	J-2668	Forest	TRUE	1.00	2257.38	2.08	2258.46	20.00	52.84	20.00	20.00	J-941	(N/A)	17.14	J-1198
5845	J-3127	Forest	TRUE	1.00	2257.48	1.48	2257.96	20.00	21.83	20.00	20.02	J-3059	(N/A)	16.82	J-1198
3454	J-1881	Forest	TRUE	1.00	2257.62	1.28	2257.89	20.00	22.79	20.00	20.01	J-3059	(N/A)	16.82	J-1198
3607	J-1967	Forest	TRUE	1.00	2257.71	1.08	2257.79	20.00	20.09	20.00	20.04	J-964	(N/A)	16.82	J-1198
3453	J-1880	Forest	TRUE	1.00	2257.79	2.28	2259.08	20.00	30.46	20.00	20.00	J-3059	(N/A)	16.82	J-1198
1264	J-656	Forest	TRUE	1.00	2258.39	1.88	2259.27	20.00	60.00	20.00	20.00	J-941	(N/A)	17.14	J-1198
4541	J-2381	Forest	TRUE	1.00	2259.61	1.28	2259.89	20.00	77.86	20.00	20.00	J-941	(N/A)	17.14	J-1198
4540	J-2380	Forest	TRUE	1.00	2259.62	3.69	2262.31	20.00	78.28	20.00	20.00	J-941	(N/A)	17.14	J-1198
7378	J-3984	Forest	TRUE	1.00	2260.01	1.08	2260.08	20.00	20.00	20.00	20.04	J-964	(N/A)	16.82	J-1198
1177	J-617	Forest	TRUE	1.00	2260.26	1.28	2260.54	20.00	78.89	20.00	20.00	J-941	(N/A)	17.14	J-1198
4505	J-2360	Forest	TRUE	1.00	2260.26	2.68	2261.95	20.00	70.99	20.00	20.00	J-941	(N/A)	17.14	J-1198
4506	J-2361	Forest	TRUE	1.00	2260.26	4.09	2263.35	20.00	71.65	20.00	20.00	J-941	(N/A)	17.14	J-1198
2519	J-1351	Forest	TRUE	1.00	2260.50	1.08	2260.58	20.00	34.21	20.00	20.00	J-941	(N/A)	17.14	J-1198
8203	J-4170	Forest	TRUE	1.00	2260.71	3.29	2262.99	20.00	38.48	20.00	20.00	J-941	(N/A)	17.14	J-1198
6229	J-3350	Forest	TRUE	1.00	2261.26	1.08	2261.33	20.00	20.00	20.00	20.31	J-3349	(N/A)	16.99	J-1198
6805	J-3690	Forest	TRUE	1.00	2261.44	1.08	2261.52	20.00	20.01	20.00	20.72	J-4176	(N/A)	17.18	J-1198
1495	J-748	Forest	TRUE	1.00	2261.44	1.08	2261.52	20.00	54.01	20.00	20.00	J-941	(N/A)	17.14	J-1198
4623	J-2429	Forest	TRUE	1.00	2261.91	1.08	2261.99	20.00	44.16	20.00	20.00	J-941	(N/A)	17.14	J-1198
3537	J-1928	Forest	TRUE	1.00	2261.92	1.28	2262.19	20.00	45.02	20.00	20.00	J-941	(N/A)	17.14	J-1198
7323	J-3963	Forest	TRUE	1.00	2262.73	1.48	2263.20	20.00	20.00	20.00	20.00	J-2278	(N/A)	16.82	J-1198
6934	J-3766	Forest	TRUE	1.00	2263.42	1.48	2263.89	20.00	31.74	20.00	20.00	J-941	(N/A)	17.14	J-1198
6935	J-3767	Forest	TRUE	1.00	2263.43	1.08	2263.50	20.00	34.29	20.00	20.00	J-941	(N/A)	17.14	J-1198
7578	J-4055	Forest	TRUE	1.00	2263.65	1.08	2263.72	20.00	21.09	20.00	20.00	J-3410	(N/A)	17.13	J-1198
8485	J-4194	Forest	TRUE	1.00	2263.65	1.48	2264.13	20.00	21.77	20.00	20.00	J-3410	(N/A)	17.13	J-1198
7345	J-3973	Forest	TRUE	1.00	2264.63	1.28	2264.80	20.00	20.44	20.00	20.01	J-3974	(N/A)	17.17	J-1198
6826	J-3702	Forest	TRUE	1.00	2264.67	1.08	2264.64	20.00	20.00	20.00	20.57	J-3974	(N/A)	17.17	J-1198
7227	J-3924	Forest	TRUE	1.00	2265.56	1.28	2265.84	20.00	22.18	20.00	20.00	J-3438	(N/A)	17.17	J-1198
6620	J-3580	Forest	TRUE	1.00	2265.56	1.08	2265.64	20.00	22.06	20.00	20.00	J-3438	(N/A)	17.17	J-1198
7402	J-3994	Forest	TRUE	1.00	2265.56	1.28	2265.84	20.00	21.99	20.00	20.00	J-3438	(N/A)	17.17	J-1198
6621	J-3581	Forest	TRUE	1.00	2265.57	1.08	2265.64	20.00	20.72	20.00	20.00	J-3438	(N/A)	17.17	J-1198
325	J-171	Forest	TRUE	1.00	2266.42	1.08	2266.50	20.00	75.91	20.00	20.00	J-941	(N/A)	17.14	J-1198
5412	J-2879	Forest	TRUE	1.00	2266.42	1.28	2266.70	20.00	74.16	20.00	20.00	J-941	(N/A)	17.14	J-1198
4723	J-2484	Forest	TRUE	1.00	2266.53	1.08	2266.61	20.00	56.36	20.00	20.00	J-941	(N/A)	17.14	J-1198
7190	J-3905	Forest	TRUE	1.00	2266.53	1.08	2266.61	20.00	55.97	20.00	20.00	J-941	(N/A)	17.14	J-1198
4722	J-2483	Forest	TRUE	1.00	2266.53	1.08	2266.61	20.00	55.46	20.00	20.00	J-941	(N/A)	17.14	J-1198
2460	J-1319	Forest	TRUE	1.00	2266.53	1.68	2267.21	20.00	60.27	20.00	20.00	J-941	(N/A)	17.14	J-1198
7225	J-3923	Forest	TRUE	1.00	2266.53	1.08	2266.61	20.00	60.65	20.00	20.00	J-941	(N/A)	17.14	J-1198
324	J-170	Forest	TRUE	1.00	2266.53	1.08	2266.61	20.00	76.10	20.00	20.00	J-941	(N/A)	17.14	J-1198
2481	J-1331	Forest	TRUE	1.00	2266.81	2.08	2267.89	20.00	26.18	20.00	20.00	J-941	(N/A)	17.14	J-1198
1577	J-782	Lakes	TRUE	1.00	2266.85	1.20	2267.05	20.00	20.01	20.00	20.05	J-781	(N/A)	17.23	J-1198
2458	J-1318	Forest	TRUE	1.00	2266.97	2.08	2268.05	20.00	34.38	20.00	20.00	J-941	(N/A)	17.14	J-1198
2461	J-1320	Forest	TRUE	1.00	2266.98	1.88	2267.86	20.00	46.62	20.00	20.00	J-941	(N/A)	17.14	J-1198
7517	J-4034	Forest	TRUE	1.00	2266.99	1.08	2267.07	20.00	44.33	20.00	20.00	J-941	(N/A)	17.14	J-1198
2457	J-1317	Forest	TRUE	1.00	2267.00	2.08	2268.08	20.00	47.74	20.00	20.00	J-941	(N/A)	17.14	J-1198
7690	J-4088	Forest	TRUE	1.00	2269.80	2.88	2271.68	20.00	20.00	20.00	24.06	J-1197	(N/A)	16.98	J-1198
2210	J-1178	Forest	TRUE	1.00	2270.15	1.08	2270.22	20.00	20.01	20.00	20.37	J-1507	(N/A)	16.98	J-1198
6804	J-3689	Forest	TRUE	1.00	2270.35	1.08	2270.43	20.00	21.30	20.00	20.00	J-4176	(N/A)	17.18	J-1198
6134	J-3293	Forest	TRUE	1.00	2270.43	1.88	2271.31	20.00	36.47	20.00	20.00	J-1206	(N/A)	13.42	J-1198
6135	J-3294	Forest	TRUE	1.00	2270.43	1.28	2270.71	20.00	35.96	20.00	20.00	J-1206	(N/A)	13.42	J-1198
7770	J-4112	Forest	TRUE	1.00	2270.81	1.88	2271.69	20.00	20.96	20.00	20.00	J-2939	(N/A)	17.00	J-1198
1425	J-712	Forest	TRUE	1.00	2273.11	1.88	2273.99	20.00	56.03	20.00	20.00	J-941	(N/A)	17.13	J-1198
4670	J-2455	Forest	TRUE	1.00	2273.11	1.08	2273.19	20.00	55.24	20.00	20.00	J-941	(N/A)	17.13	J-1198
6825	J-3701	Forest	TRUE	1.00	2273.18	1.08	2273.26	20.00	21.13	20.00	20.00	J-3974	(N/A)	17.17	J-1198
1026	J-558	Forest	TRUE	1.00	2274.94	1.08	2275.02	20.00	56.24	20.00	20.00	J-941	(N/A)	17.13	J-1198
1408	J-702	Forest	TRUE	1.00	2275.60	1.68	2276.27	20.00	56.31	20.00	20.00	J-941	(N/A)	17.13	J-1198
2490	J-1336	Forest	TRUE	1.00	2275.96	4.88	2279.84	20.00	23.77	20.00	20.00	J-941	(N/A)	17.13	J-1198
7111	J-3866	Forest	TRUE	1.00	2276.33	1.08	2276.41	20.00	27.83	20.00	20.00	J-3914	(N/A)	17.17	J-1198
4458	J-2333	Forest	TRUE	1.00	2277.55	1.08	2277.62	20.00	27.85	20.00	20.00	J-3914	(N/A)	17.17	J-1198
4459	J-2334	Forest	TRUE	1.00	2277.55	1.28	2277.83	20.00	27.57	20.00	20.00	J-3914	(N/A)	17.17	J-1198
7141	J-3882	Forest	TRUE	1.00	2279.57	1.28	2279.85	20.00	27.90	20.00	20.00	J-3914	(N/A)	17.17	J-1198
7456	J-4012	Forest	TRUE	1.00	2279.61	1.28	2279.88	20.00	26.33	20.00	20.00	J-3914	(N/A)	17.17	J-1198
1199	J-628	Stewartsville	TRUE	1.00	2279.72	1.11	2279.84	20.00	106.97	20.00	20.00	J-676	(N/A)	17.23	J-1198
4745	J-2497	Stewartsville	TRUE	1.00	2279.72	1.11	2279.84	20.00	105.54	20.00	20.00	J-676	(N/A)	17.23	J-1198
7384	J-3987	Lakes	TRUE	1.00	2281.54	1.29	2281.82	20.00	20.00	20.00	22.43	J-2657	(N/A)	17.23	J-1198
719	J-414	Forest	TRUE	1.00	2281.82	1.08	2281.90	20.00	77.56	20.00	20.00	J-3090	(N/A)	16.67	J-1198
5151	J-2727	Forest	TRUE	1.00	2283.77	1.48	2284.25	20.00	20.44	20.00	20.04	J-964	(N/A)	16.81	J-1198
5152	J-2728	Forest	TRUE	1.00	2283.92	1.88	2284.80	20.00	21.40	20.00	20.03	J-964	(N/A)	16.81	J-1198
1480	J-742	Forest	TRUE	1.00	2288.03	1.48	2288.51	20.00	57.60	20.00	20.00	J-941	(N/A)	17.13	J-1198
4586	J-2408	Forest	TRUE	1.00	2288.04	1.48	2288.51	20.00	56.92	20.00	20.00	J-941	(N/A)	17.13	J-1198
29	J-1	Forest	TRUE	1.00	2289.46	2.48	2290.94	20.00	21.42	20.00	20.00	J-2	(N/A)	17.18	J-1198
5025	J-2657	Lakes	TRUE	1.00	2296.57	1.63	2297.20	20.00	20.60	20.00	20.02	J-3987	(N/A)	17.23	J-1198
5024	J-2656	Lakes	TRUE	1.00	2296.93	1.29	2297.21	20.00	21.43	20.00	20.00	J-3987	(N/A)	17.23	J-1198
6774	J-3671	Forest	TRUE	1.00	2296.99	1.28	2297.27	20.00	20.00	20.00	21.00	J-3410	(N/A)	17.13	J-1198
5854	J-3132	Forest	TRUE	1.00	2301.86	1.08	2301.93	20.00	38.84	20.00	20.00	J-3059	(N/A)	16.80	J-1198
5853	J-3131	Forest	TRUE	1.00	2301.86	2.88	2303.74	20.00	37.35	20.00	20.00	J-3059	(N/A)	16.80	J-1198
5099	J-2699	Forest	TRUE	1.00	2302.42	1.48	2302.90	20.00	54.37	20.00	20.00	J-941	(N/A)	17.13	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7218	J-3919	Forest	TRUE	1.00	2321.35	1.48	2321.83	20.00	26.52	20.00	20.00	J-3914	(N/A)	17.17	J-1198
7219	J-3920	Forest	TRUE	1.00	2321.36	1.08	2321.43	20.00	26.02	20.00	20.00	J-3914	(N/A)	17.17	J-1198
4392	J-2310	Forest	TRUE	1.00	2321.46	2.48	2322.94	20.00	28.80	20.00	20.00	J-1525	(N/A)	17.19	J-1198
4461	J-2335	Lakes	TRUE	1.00	2324.46	2.93	2326.39	20.00	20.00	20.00	20.28	J-2336	(N/A)	17.23	J-1198
7486	J-4023	Lakes	TRUE	1.00	2326.17	1.20	2326.37	20.00	20.00	20.00	20.09	J-2335	(N/A)	17.23	J-1198
4146	J-2227	Forest	TRUE	1.00	2326.49	1.48	2326.97	20.00	20.00	20.00	20.14	J-2635	(N/A)	16.79	J-1198
4462	J-2336	Lakes	TRUE	1.00	2326.93	1.20	2327.13	20.00	20.00	20.00	20.00	J-2335	(N/A)	17.23	J-1198
6119	J-3284	Lakes	TRUE	1.00	2327.14	1.20	2327.33	20.00	75.96	20.00	20.00	J-2323	(N/A)	17.23	J-1198
829	J-469	Lakes	TRUE	1.00	2327.14	1.20	2327.34	20.00	79.17	20.00	20.00	J-2323	(N/A)	17.23	J-1198
4069	J-2194	Forest	TRUE	1.00	2327.19	1.28	2327.46	20.00	20.00	20.00	20.29	J-1666	(N/A)	17.18	J-1198
7376	J-3983	Forest	TRUE	1.00	2327.72	1.48	2328.20	20.00	56.47	20.00	20.00	J-941	(N/A)	17.13	J-1198
1440	J-721	Forest	TRUE	1.00	2327.72	1.08	2327.80	20.00	56.80	20.00	20.00	J-941	(N/A)	17.13	J-1198
4879	J-2571	Forest	TRUE	1.00	2327.72	1.08	2327.80	20.00	55.78	20.00	20.00	J-941	(N/A)	17.13	J-1198
4880	J-2572	Forest	TRUE	1.00	2327.72	1.08	2327.80	20.00	56.62	20.00	20.00	J-941	(N/A)	17.13	J-1198
4227	J-2258	Forest	TRUE	1.00	2328.72	1.08	2328.79	20.00	48.74	20.00	20.01	J-2145	(N/A)	17.19	J-1198
5185	J-2747	Forest	TRUE	1.00	2329.94	1.88	2330.82	20.00	20.01	20.00	21.21	J-2746	(N/A)	17.18	J-1198
7632	J-4072	Forest	TRUE	1.00	2330.14	1.48	2330.61	20.00	26.23	20.00	20.00	J-4156	(N/A)	17.17	J-1198
3901	J-2118	Forest	TRUE	1.00	2330.54	2.88	2332.43	20.00	20.00	20.00	24.12	J-1197	(N/A)	17.04	J-1198
7288	J-3951	Forest	TRUE	1.00	2330.64	2.08	2331.72	20.00	20.00	20.00	20.54	J-3952	(N/A)	17.18	J-1198
1441	J-722	Forest	TRUE	1.00	2331.95	1.08	2332.02	20.00	55.58	20.00	20.00	J-941	(N/A)	17.13	J-1198
5080	J-2689	Forest	TRUE	1.00	2331.95	1.08	2332.03	20.00	54.68	20.00	20.00	J-941	(N/A)	17.13	J-1198
3086	J-1665	Forest	TRUE	1.00	2332.16	1.48	2332.64	20.00	20.17	20.00	20.02	J-1666	(N/A)	17.18	J-1198
5523	J-2941	Forest	TRUE	1.00	2333.08	2.48	2334.56	20.00	21.67	20.00	20.00	J-2817	(N/A)	17.17	J-1198
5524	J-2942	Forest	TRUE	1.00	2333.09	1.48	2333.57	20.00	20.43	20.00	20.00	J-2817	(N/A)	17.17	J-1198
6810	J-3693	Forest	TRUE	1.00	2333.39	1.68	2334.07	20.00	20.28	20.00	20.03	J-4088	(N/A)	16.97	J-1198
6809	J-3692	Forest	TRUE	1.00	2333.87	1.68	2334.54	20.00	22.82	20.00	20.00	J-4088	(N/A)	16.97	J-1198
4999	J-2642	Forest	TRUE	1.00	2334.79	1.48	2335.26	20.00	28.43	20.00	20.00	J-1525	(N/A)	17.19	J-1198
4998	J-2641	Forest	TRUE	1.00	2334.79	1.48	2335.27	20.00	27.63	20.00	20.00	J-1525	(N/A)	17.19	J-1198
2590	J-1391	Forest	TRUE	1.00	2336.92	1.48	2337.40	20.00	20.00	20.00	20.28	J-3459	(N/A)	17.02	J-1198
2897	J-1570	Forest	TRUE	1.00	2340.22	1.48	2340.70	20.00	24.36	20.00	20.00	J-2729	(N/A)	16.97	J-1198
6413	J-3459	Forest	TRUE	1.00	2341.94	1.08	2342.02	20.00	20.00	20.00	20.25	J-1391	(N/A)	17.02	J-1198
7289	J-3952	Forest	TRUE	1.00	2344.34	1.48	2344.81	20.00	20.03	20.00	20.02	J-3951	(N/A)	17.18	J-1198
5184	J-2746	Forest	TRUE	1.00	2346.10	1.68	2346.78	20.00	20.23	20.00	20.02	J-2747	(N/A)	17.18	J-1198
1422	J-710	Forest	TRUE	1.00	2347.97	1.08	2348.05	20.00	52.42	20.00	20.00	J-941	(N/A)	17.13	J-1198
3539	J-1929	Forest	TRUE	1.00	2347.97	1.08	2348.05	20.00	50.23	20.00	20.00	J-941	(N/A)	17.13	J-1198
7397	J-3992	Forest	TRUE	1.00	2347.98	10.60	2357.58	20.00	49.11	20.00	20.00	J-941	(N/A)	17.13	J-1198
4980	J-2630	Forest	TRUE	1.00	2348.40	1.08	2348.47	20.00	37.29	20.00	20.00	J-941	(N/A)	17.13	J-1198
3112	J-1682	Forest	TRUE	1.00	2348.40	1.08	2348.47	20.00	36.95	20.00	20.00	J-941	(N/A)	17.13	J-1198
3111	J-1681	Forest	TRUE	1.00	2348.40	1.08	2348.47	20.00	38.15	20.00	20.00	J-941	(N/A)	17.13	J-1198
3769	J-2054	Forest	TRUE	1.00	2348.99	2.88	2350.87	20.00	20.00	20.00	20.80	J-2747	(N/A)	17.18	J-1198
6168	J-3313	Forest	TRUE	1.00	2349.45	2.68	2351.14	20.00	24.32	20.00	20.00	J-2	(N/A)	17.18	J-1198
6169	J-3314	Forest	TRUE	1.00	2349.45	1.28	2349.73	20.00	22.88	20.00	20.00	J-2	(N/A)	17.18	J-1198
1423	J-711	Forest	TRUE	1.00	2349.91	1.08	2349.98	20.00	51.13	20.00	20.00	J-941	(N/A)	17.13	J-1198
5404	J-2875	Forest	TRUE	1.00	2349.91	1.28	2350.19	20.00	50.12	20.00	20.00	J-941	(N/A)	17.13	J-1198
1390	J-694	Forest	TRUE	1.00	2354.88	3.29	2357.17	20.00	28.46	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6731	J-3646	Forest	TRUE	1.00	2354.88	1.28	2355.16	20.00	26.43	20.00	20.00	J-2919	(N/A)	17.15	J-1198
461	J-258	Lakes	TRUE	1.00	2356.70	1.20	2356.90	20.00	86.89	20.00	20.05	J-2323	(N/A)	17.23	J-1198
4674	J-2457	Lakes	TRUE	1.00	2356.72	1.20	2356.92	20.00	87.45	20.00	20.05	J-2323	(N/A)	17.23	J-1198
312	J-162	Lakes	TRUE	1.00	2357.14	1.20	2357.34	20.00	87.83	20.00	20.03	J-2323	(N/A)	17.23	J-1198
313	J-163	Lakes	TRUE	1.00	2357.14	1.29	2357.43	20.00	87.86	20.00	20.03	J-2323	(N/A)	17.23	J-1198
7019	J-3815	Forest	TRUE	1.00	2361.21	1.48	2361.69	20.00	20.02	20.00	22.95	J-3814	(N/A)	16.64	J-1198
5920	J-3168	Forest	TRUE	1.00	2362.21	1.88	2363.09	20.00	20.01	20.00	22.09	J-3167	(N/A)	17.18	J-1198
1460	J-732	Forest	TRUE	1.00	2368.63	1.08	2368.71	20.00	58.14	20.00	20.00	J-941	(N/A)	17.13	J-1198
5692	J-3039	Forest	TRUE	1.00	2368.92	1.68	2369.60	20.00	22.69	20.00	20.00	J-2939	(N/A)	16.98	J-1198
5693	J-3040	Forest	TRUE	1.00	2368.92	1.28	2369.19	20.00	21.74	20.00	20.00	J-2939	(N/A)	16.98	J-1198
3935	J-2135	Forest	TRUE	1.00	2368.94	1.08	2369.02	20.00	48.98	20.00	20.01	J-2145	(N/A)	17.19	J-1198
1037	J-563	Forest	TRUE	1.00	2371.28	1.48	2371.76	20.00	58.52	20.00	20.00	J-3090	(N/A)	16.64	J-1198
5084	J-2691	Forest	TRUE	1.00	2371.28	1.08	2371.36	20.00	57.06	20.00	20.00	J-3090	(N/A)	16.64	J-1198
7007	J-3808	Forest	TRUE	1.00	2371.61	1.88	2372.69	20.00	20.00	20.00	23.61	J-3807	(N/A)	17.18	J-1198
2652	J-1428	Forest	TRUE	1.00	2373.81	1.88	2374.69	20.00	25.06	20.00	20.00	J-1451	(N/A)	17.04	J-1198
6420	J-3463	Forest	TRUE	1.00	2375.08	1.28	2375.36	20.00	32.95	20.00	20.00	J-4119	(N/A)	16.78	J-1198
6419	J-3462	Forest	TRUE	1.00	2375.08	1.28	2375.36	20.00	30.88	20.00	20.00	J-4119	(N/A)	16.78	J-1198
7732	J-4102	Forest	TRUE	1.00	2375.41	1.28	2375.69	20.00	20.01	20.00	22.17	J-3066	(N/A)	16.98	J-1198
6027	J-3228	Forest	TRUE	1.00	2376.46	1.48	2376.94	20.00	20.00	20.00	21.22	J-3972	(N/A)	17.18	J-1198
6839	J-3710	Forest	TRUE	1.00	2377.53	1.08	2377.61	20.00	49.36	20.00	20.01	J-941	(N/A)	17.13	J-1198
1432	J-716	Forest	TRUE	1.00	2377.85	1.08	2377.93	20.00	61.51	20.00	20.00	J-941	(N/A)	17.13	J-1198
7610	J-4065	Forest	TRUE	1.00	2378.28	8.61	2385.89	20.00	44.33	20.00	20.00	J-941	(N/A)	17.13	J-1198
6840	J-3711	Forest	TRUE	1.00	2378.29	1.48	2378.77	20.00	46.82	20.00	20.00	J-941	(N/A)	17.13	J-1198
1433	J-717	Forest	TRUE	1.00	2380.87	1.08	2380.95	20.00	61.07	20.00	20.00	J-941	(N/A)	17.13	J-1198
5893	J-3153	Forest	TRUE	1.00	2380.87	1.48	2381.35	20.00	59.87	20.00	20.00	J-941	(N/A)	17.13	J-1198
6261	J-3370	Forest	TRUE	1.00	2381.32	2.08	2382.40	20.00	20.01	20.00	21.49	J-3369	(N/A)	17.18	J-1198
3697	J-2017	Forest	TRUE	1.00	2381.75	1.08	2381.83	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
7342	J-3971	Forest	TRUE	1.00	2381.82	1.08	2381.90	20.00	20.00	20.00	20.69	J-3972	(N/A)	17.18	J-1198
5919	J-3167	Forest	TRUE	1.00	2384.63	2.08	2385.71	20.00	20.64	20.00	20.01	J-3168	(N/A)	17.18	J-1198
7713	J-4096	Forest	TRUE	1.00	2384.82	1.08	2384.90	20.00	21.35	20.00	20.00	J-3168	(N/A)	17.18	J-1198
2881	J-1561	Forest	TRUE	1.00	2387.74	1.08	2387.81	20.00	20.10	20.00	20.04	J-4160	(N/A)	16.64	J-1198
6199	J-3331	Forest	TRUE	1.00	2390.41	2.08	2391.49	20.00	26.18	20.00	20.00	J-4167	(N/A)	16.98	J-1198
6200	J-3332	Forest	TRUE	1.00	2390.41	1.88	2391.29	20.00	24.94	20.00	20.00	J-4167	(N/A)	16.98	J-1198
4209	J-2252	Forest	TRUE	1.00	2394.56	2.28	2395.84	20.00	20.72	20.00	20.00	J-895	(N/A)	17.18	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7018	J-3814	Forest	TRUE	1.00	2405.45	1.08	2405.53	20.00	20.00	20.00	20.44	J-4160	(N/A)	16.63	J-1198
6260	J-3369	Forest	TRUE	1.00	2406.26	1.48	2406.74	20.00	20.01	20.00	20.16	J-3370	(N/A)	17.18	J-1198
6026	J-3227	Forest	TRUE	1.00	2406.79	1.28	2407.07	20.00	20.11	20.00	20.02	J-3972	(N/A)	17.18	J-1198
7733	J-4103	Forest	TRUE	1.00	2409.01	1.08	2409.08	20.00	32.11	20.00	20.00	J-3066	(N/A)	16.98	J-1198
284	J-145	Forest	TRUE	1.00	2410.10	1.08	2410.18	20.00	56.19	20.00	20.01	J-2919	(N/A)	17.12	J-1198
285	J-146	Forest	TRUE	1.00	2410.10	1.08	2410.18	20.00	56.15	20.00	20.01	J-2919	(N/A)	17.12	J-1198
3363	J-1831	Lakes	TRUE	1.00	2418.97	2.15	2420.12	20.00	20.00	20.00	24.74	J-1896	(N/A)	17.23	J-1198
2572	J-1381	Forest	TRUE	1.00	2421.07	1.08	2421.15	20.00	24.04	20.00	20.00	J-1115	(N/A)	16.96	J-1198
6424	J-3465	Forest	TRUE	1.00	2421.07	1.08	2421.15	20.00	22.43	20.00	20.00	J-1115	(N/A)	16.96	J-1198
4456	J-2332	Stewartsville	TRUE	1.00	2421.40	1.26	2421.65	20.00	96.30	20.00	20.00	J-676	(N/A)	17.23	J-1198
1198	J-627	Stewartsville	TRUE	1.00	2421.40	2.55	2422.95	20.00	96.65	20.00	20.00	J-676	(N/A)	17.23	J-1198
5612	J-2992	Forest	TRUE	1.00	2425.28	1.48	2425.76	20.00	31.05	20.00	20.00	J-2224	(N/A)	16.62	J-1198
5613	J-2993	Forest	TRUE	1.00	2425.28	1.48	2425.76	20.00	31.45	20.00	20.00	J-2224	(N/A)	16.62	J-1198
2617	J-1408	Forest	TRUE	1.00	2426.14	1.08	2426.22	20.00	21.86	20.00	20.00	J-1407	(N/A)	17.12	J-1198
5360	J-2849	Forest	TRUE	1.00	2431.59	1.08	2431.67	20.00	25.43	20.00	20.00	J-4156	(N/A)	17.17	J-1198
5359	J-2848	Forest	TRUE	1.00	2431.60	1.08	2431.68	20.00	24.08	20.00	20.00	J-4156	(N/A)	17.17	J-1198
3390	J-1844	Lakes	TRUE	1.00	2434.13	1.20	2434.33	20.00	20.01	20.00	24.91	J-2433	(N/A)	17.23	J-1198
7269	J-3944	Forest	TRUE	1.00	2435.60	1.88	2436.48	20.00	49.00	20.00	20.00	J-1197	(N/A)	12.92	J-1198
596	J-341	Forest	TRUE	1.00	2442.42	1.08	2442.50	20.00	61.77	20.00	20.01	J-2919	(N/A)	17.11	J-1198
4664	J-2451	Lakes	TRUE	1.00	2442.97	1.20	2443.17	20.00	20.00	20.00	20.88	J-2452	(N/A)	17.23	J-1198
7742	J-4106	Forest	TRUE	1.00	2446.28	1.88	2447.16	20.00	23.00	20.00	20.00	J-3954	(N/A)	17.03	J-1198
375	J-203	Forest	TRUE	1.00	2452.59	1.08	2452.67	20.00	82.41	20.00	20.01	J-941	(N/A)	17.12	J-1198
282	J-144	Forest	TRUE	1.00	2452.59	1.28	2452.87	20.00	82.01	20.00	20.01	J-941	(N/A)	17.12	J-1198
4850	J-2555	Forest	TRUE	1.00	2452.60	1.28	2452.87	20.00	81.54	20.00	20.01	J-941	(N/A)	17.12	J-1198
914	J-508	Forest	TRUE	1.00	2452.60	1.88	2453.48	20.00	69.66	20.00	20.01	J-941	(N/A)	17.12	J-1198
1141	J-603	Forest	TRUE	1.00	2452.60	1.08	2452.67	20.00	79.87	20.00	20.01	J-941	(N/A)	17.12	J-1198
281	J-143	Forest	TRUE	1.00	2452.60	1.28	2452.88	20.00	82.21	20.00	20.01	J-941	(N/A)	17.12	J-1198
1466	J-735	Forest	TRUE	1.00	2452.61	5.36	2456.96	20.00	77.36	20.00	20.01	J-941	(N/A)	17.12	J-1198
261	J-130	Forest	TRUE	1.00	2452.83	1.08	2452.91	20.00	60.87	20.00	20.01	J-2919	(N/A)	17.11	J-1198
262	J-131	Forest	TRUE	1.00	2452.83	1.28	2453.11	20.00	60.74	20.00	20.01	J-2919	(N/A)	17.11	J-1198
3583	J-1954	Forest	TRUE	1.00	2453.00	1.08	2453.08	20.00	31.22	20.00	20.00	J-941	(N/A)	17.12	J-1198
5167	J-2737	Forest	TRUE	1.00	2453.38	1.08	2453.46	20.00	23.09	20.00	20.00	J-941	(N/A)	17.12	J-1198
5168	J-2738	Forest	TRUE	1.00	2453.38	1.08	2453.46	20.00	22.02	20.00	20.00	J-941	(N/A)	17.12	J-1198
8062	J-4163	Forest	TRUE	1.00	2453.44	4.32	2456.76	20.00	51.95	20.00	20.00	J-941	(N/A)	17.12	J-1198
4665	J-2452	Lakes	TRUE	1.00	2453.45	1.20	2453.65	20.00	20.14	20.00	20.04	J-2451	(N/A)	17.23	J-1198
5939	J-3179	Forest	TRUE	1.00	2456.44	1.08	2456.51	20.00	20.00	20.00	22.08	J-3178	(N/A)	17.18	J-1198
928	J-513	Forest	TRUE	1.00	2458.96	1.08	2459.03	20.00	61.42	20.00	20.01	J-2919	(N/A)	17.11	J-1198
73	J-30	Forest	TRUE	1.00	2462.90	1.28	2463.18	20.00	24.71	20.00	20.00	J-2114	(N/A)	17.17	J-1198
72	J-29	Forest	TRUE	1.00	2462.90	1.08	2462.98	20.00	23.85	20.00	20.00	J-2114	(N/A)	17.17	J-1198
3765	J-2052	Forest	TRUE	1.00	2464.33	1.48	2464.81	20.00	20.00	20.00	21.27	J-2051	(N/A)	17.18	J-1198
6601	J-3569	Lakes	TRUE	1.00	2464.37	1.20	2464.57	20.00	20.00	20.00	22.05	J-3568	(N/A)	17.23	J-1198
1476	J-740	Forest	TRUE	1.00	2469.12	1.08	2469.19	20.00	64.20	20.00	20.01	J-941	(N/A)	17.12	J-1198
4974	J-2627	Forest	TRUE	1.00	2469.12	1.08	2469.19	20.00	63.25	20.00	20.01	J-941	(N/A)	17.12	J-1198
7052	J-3833	Forest	TRUE	1.00	2471.07	1.68	2471.75	20.00	20.00	20.00	21.13	J-3823	(N/A)	17.04	J-1198
5048	J-2671	Forest	TRUE	1.00	2471.28	1.68	2471.96	20.00	63.39	20.00	20.01	J-2919	(N/A)	17.11	J-1198
5049	J-2672	Forest	TRUE	1.00	2471.28	1.08	2471.36	20.00	62.78	20.00	20.01	J-2919	(N/A)	17.11	J-1198
6912	J-3753	Forest	TRUE	1.00	2473.43	1.08	2473.50	20.00	23.82	20.00	20.04	J-2729	(N/A)	16.95	J-1198
6913	J-3754	Forest	TRUE	1.00	2473.93	1.08	2474.00	20.00	22.02	20.00	20.00	J-2729	(N/A)	16.95	J-1198
7006	J-3807	Forest	TRUE	1.00	2477.78	2.08	2478.86	20.00	20.00	20.00	20.05	J-3808	(N/A)	17.17	J-1198
952	J-525	Lakes	TRUE	1.00	2481.53	1.20	2481.73	20.00	85.03	20.00	20.05	J-2323	(N/A)	17.23	J-1198
5712	J-3051	Forest	TRUE	1.00	2481.60	1.28	2481.88	20.00	40.91	20.00	20.01	J-1217	(N/A)	17.17	J-1198
1105	J-592	Forest	TRUE	1.00	2481.63	1.08	2481.70	20.00	34.32	20.00	20.01	J-1217	(N/A)	17.17	J-1198
6611	J-3575	Forest	TRUE	1.00	2481.72	1.28	2482.00	20.00	33.06	20.00	20.00	J-1217	(N/A)	17.17	J-1198
887	J-498	Forest	TRUE	1.00	2481.98	1.88	2482.86	20.00	23.74	20.00	20.00	J-1217	(N/A)	17.17	J-1198
5711	J-3050	Forest	TRUE	1.00	2482.03	1.48	2482.51	20.00	42.24	20.00	20.00	J-1217	(N/A)	17.17	J-1198
349	J-186	Forest	TRUE	1.00	2482.03	1.08	2482.11	20.00	47.25	20.00	20.00	J-1217	(N/A)	17.17	J-1198
350	J-187	Forest	TRUE	1.00	2482.03	1.08	2482.11	20.00	47.38	20.00	20.00	J-1217	(N/A)	17.17	J-1198
7014	J-3812	Lakes	TRUE	1.00	2482.39	1.20	2482.58	20.00	81.59	20.00	20.00	J-2323	(N/A)	17.23	J-1198
6341	J-3417	Forest	TRUE	1.00	2483.52	1.08	2483.59	20.00	60.79	20.00	20.01	J-941	(N/A)	17.12	J-1198
8491	J-4198	Forest	TRUE	1.00	2483.52	1.08	2483.59	20.00	69.44	20.00	20.01	J-941	(N/A)	17.12	J-1198
6594	J-3565	Forest	TRUE	1.00	2483.52	1.28	2483.80	20.00	71.42	20.00	20.01	J-941	(N/A)	17.12	J-1198
6593	J-3564	Forest	TRUE	1.00	2483.52	1.08	2483.60	20.00	73.24	20.00	20.01	J-941	(N/A)	17.12	J-1198
8490	J-4197	Forest	TRUE	1.00	2483.52	1.48	2484.00	20.00	70.23	20.00	20.01	J-941	(N/A)	17.12	J-1198
8495	J-4200	Forest	TRUE	1.00	2483.52	1.48	2484.00	20.00	66.07	20.00	20.01	J-941	(N/A)	17.12	J-1198
1464	J-734	Forest	TRUE	1.00	2483.52	1.28	2483.80	20.00	63.44	20.00	20.01	J-941	(N/A)	17.12	J-1198
6340	J-3416	Forest	TRUE	1.00	2483.52	1.28	2483.80	20.00	62.46	20.00	20.01	J-941	(N/A)	17.12	J-1198
8496	J-4201	Forest	TRUE	1.00	2483.52	1.28	2483.80	20.00	66.29	20.00	20.01	J-941	(N/A)	17.12	J-1198
8511	J-4208	Forest	TRUE	1.00	2483.52	1.08	2483.60	20.00	74.48	20.00	20.01	J-941	(N/A)	17.12	J-1198
4630	J-2433	Lakes	TRUE	1.00	2484.40	1.20	2484.60	20.00	20.01	20.00	20.88	J-2434	(N/A)	17.23	J-1198
5626	J-3000	Forest	TRUE	1.00	2486.85	1.08	2486.92	20.00	23.34	20.00	20.00	J-3330	(N/A)	17.17	J-1198
5627	J-3001	Forest	TRUE	1.00	2486.85	1.48	2487.33	20.00	21.44	20.00	20.00	J-3330	(N/A)	17.17	J-1198
4098	J-2207	Lakes	TRUE	1.00	2487.09	2.24	2488.33	20.00	28.58	20.00	20.00	J-1722	(N/A)	17.23	J-1198
4186	J-2244	Lakes	TRUE	1.00	2487.09	1.72	2487.81	20.00	28.30	20.00	20.00	J-1722	(N/A)	17.23	J-1198
3204	J-1737	Forest	TRUE	1.00	2487.69	1.48	2488.17	20.00	31.34	20.00	20.00	J-3	(N/A)	16.60	J-1198
2870	J-1555	Forest	TRUE	1.00	2487.69	1.08	2487.77	20.00	26.74	20.00	20.00	J-3	(N/A)	16.60	J-1198
3205	J-1738	Forest	TRUE	1.00	2487.69	1.08	2487.77	20.00	29.00	20.00	20.00	J-3	(N/A)	16.60	J-1198
6178	J-3319	Forest	TRUE	1.00	2487.69	1.08	2487.77	20.00	27.22	20.00	20.00	J-3	(N/A)	16.60	J-1198
2141	J-1136	Forest	TRUE	1.00	2488.08	1.48	2488.56	20.00	20.44	20.00	20.01	J-3179	(N/A)	17.18	J-1198
5938	J-3178	Forest	TRUE	1.00	2488.27	1.08	2488.35	20.00	20.52	20.00	20.00	J-3179	(N/A)	17.18	J-1198
3362	J-1														

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
377	J-204	Forest	TRUE	1.00	2500.00	1.28	2500.28	20.00	62.97	20.00	20.01	J-2919	(N/A)	17.11	J-1198
378	J-205	Forest	TRUE	1.00	2501.45	1.48	2501.93	20.00	63.22	20.00	20.01	J-2919	(N/A)	17.11	J-1198
3994	J-2160	Forest	TRUE	1.00	2503.25	2.48	2504.73	20.00	28.02	20.00	20.00	J-917	(N/A)	17.18	J-1198
5053	J-2674	Forest	TRUE	1.00	2503.84	2.28	2505.12	20.00	28.98	20.00	20.00	J-895	(N/A)	17.18	J-1198
5054	J-2675	Forest	TRUE	1.00	2503.84	1.48	2504.32	20.00	28.00	20.00	20.00	J-895	(N/A)	17.18	J-1198
5544	J-2953	Forest	TRUE	1.00	2505.98	1.08	2506.06	20.00	65.74	20.00	20.01	J-941	(N/A)	17.11	J-1198
1458	J-731	Forest	TRUE	1.00	2505.98	1.48	2506.46	20.00	67.04	20.00	20.01	J-941	(N/A)	17.11	J-1198
4538	J-2379	Forest	TRUE	1.00	2507.02	1.68	2507.70	20.00	20.00	20.00	20.26	J-1824	(N/A)	17.02	J-1198
2536	J-1361	Forest	TRUE	1.00	2507.44	1.08	2507.52	20.00	26.08	20.00	20.00	J-1115	(N/A)	16.95	J-1198
3352	J-1824	Forest	TRUE	1.00	2515.34	1.48	2515.81	20.00	20.00	20.00	20.39	J-2379	(N/A)	17.02	J-1198
6751	J-3658	Forest	TRUE	1.00	2517.97	1.28	2518.25	20.00	20.00	20.00	22.14	J-3657	(N/A)	17.17	J-1198
6915	J-3755	Forest	TRUE	1.00	2518.92	1.88	2519.80	20.00	27.58	20.00	20.00	J-2153	(N/A)	17.17	J-1198
6916	J-3756	Forest	TRUE	1.00	2518.92	1.28	2519.20	20.00	26.58	20.00	20.00	J-2153	(N/A)	17.17	J-1198
8504	J-4205	Forest	TRUE	1.00	2522.50	1.28	2522.78	20.00	34.96	20.00	20.00	J-2267	(N/A)	16.78	J-1198
129	J-63	Forest	TRUE	1.00	2522.50	1.48	2522.98	20.00	30.50	20.00	20.00	J-2267	(N/A)	16.78	J-1198
4877	J-2570	Forest	TRUE	1.00	2523.40	1.08	2523.47	20.00	33.36	20.00	20.00	J-3066	(N/A)	16.96	J-1198
4876	J-2569	Forest	TRUE	1.00	2523.40	1.08	2523.47	20.00	33.07	20.00	20.00	J-3066	(N/A)	16.96	J-1198
1414	J-705	Forest	TRUE	1.00	2524.47	1.08	2524.55	20.00	67.26	20.00	20.01	J-941	(N/A)	17.11	J-1198
897	J-503	Forest	TRUE	1.00	2524.49	1.28	2524.77	20.00	53.75	20.00	20.00	J-2919	(N/A)	17.11	J-1198
5997	J-3211	Forest	TRUE	1.00	2524.49	1.68	2525.17	20.00	51.19	20.00	20.00	J-2919	(N/A)	17.11	J-1198
5776	J-3088	Forest	TRUE	1.00	2524.72	1.08	2524.80	20.00	65.75	20.00	20.01	J-941	(N/A)	17.11	J-1198
1415	J-706	Forest	TRUE	1.00	2524.72	1.48	2525.20	20.00	67.23	20.00	20.01	J-941	(N/A)	17.11	J-1198
1472	J-738	Forest	TRUE	1.00	2530.29	1.08	2530.36	20.00	71.22	20.00	20.01	J-941	(N/A)	17.11	J-1198
8523	J-4213	Forest	TRUE	1.00	2531.08	7.12	2537.20	20.00	64.40	20.00	20.00	J-941	(N/A)	17.11	J-1198
463	J-259	Lakes	TRUE	1.00	2532.93	1.20	2533.13	20.00	92.50	20.00	20.00	J-2323	(N/A)	17.23	J-1198
6329	J-3409	Lakes	TRUE	1.00	2532.93	1.20	2533.13	20.00	89.25	20.00	20.00	J-2323	(N/A)	17.23	J-1198
5809	J-3107	Forest	TRUE	1.00	2533.57	1.08	2533.64	20.00	64.52	20.00	20.01	J-941	(N/A)	17.11	J-1198
1427	J-713	Forest	TRUE	1.00	2533.57	1.08	2533.64	20.00	65.99	20.00	20.01	J-941	(N/A)	17.11	J-1198
1428	J-714	Forest	TRUE	1.00	2533.57	1.08	2533.64	20.00	63.93	20.00	20.01	J-941	(N/A)	17.11	J-1198
1438	J-720	Forest	TRUE	1.00	2533.57	1.28	2533.85	20.00	68.49	20.00	20.01	J-941	(N/A)	17.11	J-1198
5379	J-2860	Forest	TRUE	1.00	2534.20	1.88	2535.09	20.00	20.09	20.00	20.01	J-2861	(N/A)	17.17	J-1198
104	J-50	Forest	TRUE	1.00	2535.31	1.48	2535.79	20.00	23.20	20.00	20.00	J-2114	(N/A)	17.17	J-1198
5838	J-3123	Forest	TRUE	1.00	2535.31	1.08	2535.39	20.00	21.63	20.00	20.00	J-2114	(N/A)	17.17	J-1198
6777	J-3673	Forest	TRUE	1.00	2536.96	1.88	2537.84	20.00	20.00	20.00	22.42	J-3672	(N/A)	17.17	J-1198
4934	J-2604	Forest	TRUE	1.00	2537.42	1.48	2537.90	20.00	20.00	20.00	20.86	J-2603	(N/A)	17.17	J-1198
240	J-116	Lakes	TRUE	1.00	2538.38	1.37	2538.75	20.00	94.33	20.00	20.00	J-2323	(N/A)	17.23	J-1198
241	J-117	Lakes	TRUE	1.00	2538.38	1.37	2538.75	20.00	94.28	20.00	20.00	J-2323	(N/A)	17.23	J-1198
3045	J-1639	Forest	TRUE	1.00	2539.54	1.08	2539.62	20.00	51.91	20.00	20.01	J-941	(N/A)	17.14	J-1198
6004	J-3215	Forest	TRUE	1.00	2539.54	1.08	2539.62	20.00	50.73	20.00	20.01	J-941	(N/A)	17.14	J-1198
44	J-11	Forest	TRUE	1.00	2539.54	1.28	2539.82	20.00	59.00	20.00	20.01	J-941	(N/A)	17.14	J-1198
2677	J-1442	Forest	TRUE	1.00	2539.75	1.88	2540.63	20.00	31.64	20.00	20.01	J-2580	(N/A)	17.15	J-1198
3044	J-1638	Forest	TRUE	1.00	2540.30	1.48	2540.78	20.00	52.61	20.00	20.00	J-941	(N/A)	17.14	J-1198
194	J-92	Forest	TRUE	1.00	2541.03	1.08	2541.10	20.00	28.94	20.00	20.00	J-2038	(N/A)	17.17	J-1198
3287	J-1788	Forest	TRUE	1.00	2541.04	1.08	2541.12	20.00	25.54	20.00	20.00	J-2038	(N/A)	17.17	J-1198
5581	J-2974	Forest	TRUE	1.00	2541.04	2.28	2542.33	20.00	24.45	20.00	20.00	J-2038	(N/A)	17.17	J-1198
45	J-12	Forest	TRUE	1.00	2542.74	1.48	2543.22	20.00	58.78	20.00	20.00	J-941	(N/A)	17.14	J-1198
5062	J-2679	Lakes	TRUE	1.00	2542.75	1.89	2543.64	20.00	31.68	20.00	20.00	J-3987	(N/A)	17.23	J-1198
5063	J-2680	Lakes	TRUE	1.00	2542.75	1.37	2543.13	20.00	30.51	20.00	20.00	J-3987	(N/A)	17.23	J-1198
1404	J-700	Forest	TRUE	1.00	2545.70	1.48	2546.18	20.00	60.90	20.00	20.01	J-941	(N/A)	17.11	J-1198
1403	J-699	Forest	TRUE	1.00	2546.22	1.08	2546.30	20.00	60.74	20.00	20.01	J-941	(N/A)	17.11	J-1198
5516	J-2937	Forest	TRUE	1.00	2546.22	1.48	2546.70	20.00	59.41	20.00	20.01	J-941	(N/A)	17.11	J-1198
6052	J-3243	Forest	TRUE	1.00	2547.55	1.48	2548.03	20.00	34.13	20.00	20.00	J-2280	(N/A)	17.18	J-1198
6053	J-3244	Forest	TRUE	1.00	2547.55	2.88	2549.44	20.00	32.20	20.00	20.00	J-2280	(N/A)	17.18	J-1198
7162	J-3894	Lakes	TRUE	1.00	2547.98	2.67	2549.65	20.00	31.81	20.00	20.00	J-3987	(N/A)	17.23	J-1198
4852	J-2556	Lakes	TRUE	1.00	2547.98	2.24	2549.22	20.00	25.26	20.00	20.00	J-3987	(N/A)	17.23	J-1198
4853	J-2557	Lakes	TRUE	1.00	2547.98	1.63	2548.61	20.00	24.22	20.00	20.00	J-3987	(N/A)	17.23	J-1198
7875	J-4136	Lakes	TRUE	1.00	2547.98	1.46	2548.44	20.00	22.43	20.00	20.00	J-3987	(N/A)	17.23	J-1198
278	J-141	Forest	TRUE	1.00	2550.72	1.68	2551.40	20.00	51.87	20.00	20.00	J-2919	(N/A)	17.11	J-1198
279	J-142	Forest	TRUE	1.00	2550.73	1.28	2551.00	20.00	51.85	20.00	20.00	J-2919	(N/A)	17.11	J-1198
1443	J-723	Forest	TRUE	1.00	2552.38	2.08	2553.46	20.00	59.38	20.00	20.00	J-941	(N/A)	17.11	J-1198
1435	J-718	Forest	TRUE	1.00	2556.46	1.28	2556.74	20.00	58.64	20.00	20.01	J-941	(N/A)	17.11	J-1198
6036	J-3233	Forest	TRUE	1.00	2556.46	1.28	2556.74	20.00	57.06	20.00	20.01	J-941	(N/A)	17.11	J-1198
7301	J-3956	Forest	TRUE	1.00	2557.47	1.08	2557.55	20.00	20.00	20.00	20.33	J-3657	(N/A)	17.17	J-1198
6466	J-3489	Forest	TRUE	1.00	2557.59	1.48	2558.07	20.00	32.00	20.00	20.01	J-2580	(N/A)	17.15	J-1198
6467	J-3490	Forest	TRUE	1.00	2557.66	1.08	2557.74	20.00	30.34	20.00	20.01	J-2580	(N/A)	17.15	J-1198
5328	J-2830	Forest	TRUE	1.00	2558.08	1.08	2558.16	20.00	63.01	20.00	20.01	J-941	(N/A)	17.11	J-1198
4933	J-2603	Forest	TRUE	1.00	2558.24	1.88	2559.12	20.00	20.00	20.00	20.13	J-2604	(N/A)	17.17	J-1198
5329	J-2831	Forest	TRUE	1.00	2558.84	1.08	2558.92	20.00	61.18	20.00	20.00	J-941	(N/A)	17.11	J-1198
6837	J-3709	Forest	TRUE	1.00	2559.29	2.28	2560.57	20.00	20.00	20.00	20.90	J-3708	(N/A)	16.93	J-1198
2625	J-1413	Forest	TRUE	1.00	2560.92	2.08	2562.00	20.00	20.00	20.00	24.09	J-1197	(N/A)	17.01	J-1198
1436	J-719	Forest	TRUE	1.00	2561.18	1.28	2561.46	20.00	58.22	20.00	20.00	J-941	(N/A)	17.11	J-1198
6750	J-3657	Forest	TRUE	1.00	2564.51	1.08	2564.59	20.00	20.00	20.00	20.15	J-3658	(N/A)	17.17	J-1198
7582	J-4056	Forest	TRUE	1.00	2565.86	1.48	2566.34	20.00	25.33	20.00	20.00	J-3330	(N/A)	17.17	J-1198
1004	J-548	Forest	TRUE	1.00	2565.88	1.48	2566.36	20.00	29.04	20.00	20.00	J-3090	(N/A)	16.57	J-1198
4862	J-2562	Forest	TRUE	1.00	2565.88	1.48	2566.36	20.00	27.83	20.00	20.00	J-3090	(N/A)	16.57	J-1198
3351	J-1823	Forest	TRUE	1.00	2567.63	2.28	2568.91	20.00	20.01	20.00	20.39	J-1449	(N/A)	17.02	J-1198
1419	J-708	Forest	TRUE	1.00	2568.73	1.28	2569.00	20.00	56.82	20.00	20.00	J-941	(N/A)	17.11	J-1198
1420	J-709	Forest	TRUE	1.00	2570.25	1.08	2570.33	20.00	57.17	20.00	20.00	J-941	(N/A)	17.11	J-1198
6948	J-3774	Forest	TRUE	1.00	2570.25	1.28	2570.53	20.00	53.92	20.00	20.00	J-941	(N/A)	17.11	J-1198
6836	J-3708</														

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7508	J-4030	Forest	TRUE	1.00	2591.47	2.28	2592.75	20.00	20.00	20.00	21.24	J-3657	(N/A)	17.17	J-1198
1478	J-741	Forest	TRUE	1.00	2592.64	1.08	2592.72	20.00	58.47	20.00	20.00	J-941	(N/A)	17.11	J-1198
4654	J-2446	Forest	TRUE	1.00	2592.65	1.48	2593.13	20.00	57.60	20.00	20.00	J-941	(N/A)	17.11	J-1198
5224	J-2769	Forest	TRUE	1.00	2595.91	2.48	2597.40	20.00	23.28	20.00	20.00	J-2280	(N/A)	17.17	J-1198
5223	J-2768	Forest	TRUE	1.00	2595.92	2.08	2597.00	20.00	24.43	20.00	20.00	J-2280	(N/A)	17.17	J-1198
103	J-49	Forest	TRUE	1.00	2597.13	2.28	2598.41	20.00	26.40	20.00	20.00	J-2114	(N/A)	17.17	J-1198
995	J-545	Forest	TRUE	1.00	2603.58	1.48	2604.06	20.00	53.44	20.00	20.00	J-2919	(N/A)	17.10	J-1198
5791	J-3096	Forest	TRUE	1.00	2603.59	2.48	2605.07	20.00	51.97	20.00	20.00	J-2919	(N/A)	17.10	J-1198
123	J-59	Forest	TRUE	1.00	2604.84	1.48	2605.31	20.00	51.66	20.00	20.00	J-941	(N/A)	17.14	J-1198
3154	J-1707	Forest	TRUE	1.00	2604.84	1.48	2605.32	20.00	50.22	20.00	20.00	J-941	(N/A)	17.14	J-1198
5530	J-2946	Forest	TRUE	1.00	2606.54	1.08	2606.61	20.00	66.07	20.00	20.01	J-2919	(N/A)	17.10	J-1198
5529	J-2945	Forest	TRUE	1.00	2606.54	1.28	2606.82	20.00	67.03	20.00	20.01	J-2919	(N/A)	17.10	J-1198
2814	J-1523	Forest	TRUE	1.00	2606.78	1.48	2607.26	20.00	27.22	20.00	20.03	J-2729	(N/A)	16.93	J-1198
5490	J-2923	Forest	TRUE	1.00	2608.00	1.68	2608.68	20.00	54.66	20.00	20.00	J-941	(N/A)	17.10	J-1198
1474	J-739	Forest	TRUE	1.00	2608.00	1.08	2608.08	20.00	55.87	20.00	20.00	J-941	(N/A)	17.10	J-1198
4033	J-2177	Forest	TRUE	1.00	2608.64	1.88	2609.52	20.00	23.08	20.00	20.00	J-2939	(N/A)	16.94	J-1198
857	J-483	Stewartsville	TRUE	1.00	2608.74	1.11	2608.85	20.00	81.31	20.00	20.00	J-676	(N/A)	17.23	J-1198
5729	J-3061	Stewartsville	TRUE	1.00	2608.74	1.11	2608.85	20.00	79.18	20.00	20.00	J-676	(N/A)	17.23	J-1198
1700	J-860	Forest	TRUE	1.00	2609.69	1.08	2609.77	20.00	28.55	20.00	20.00	J-1115	(N/A)	16.93	J-1198
884	J-497	Forest	TRUE	1.00	2620.57	1.88	2621.45	20.00	52.74	20.00	20.00	J-941	(N/A)	17.10	J-1198
7071	J-3843	Forest	TRUE	1.00	2620.96	1.68	2621.64	20.00	56.86	20.00	20.00	J-2919	(N/A)	17.11	J-1198
7072	J-3844	Forest	TRUE	1.00	2620.96	2.08	2622.04	20.00	48.31	20.00	20.00	J-2919	(N/A)	17.11	J-1198
6182	J-3321	Forest	TRUE	1.00	2623.35	1.48	2623.83	20.00	72.81	20.00	20.00	J-2145	(N/A)	17.18	J-1198
648	J-373	Forest	TRUE	1.00	2623.35	1.68	2624.03	20.00	71.98	20.00	20.00	J-2145	(N/A)	17.18	J-1198
1374	J-691	Forest	TRUE	1.00	2623.39	1.68	2624.07	20.00	20.43	20.00	20.00	J-3735	(N/A)	17.18	J-1198
5315	J-2822	Forest	TRUE	1.00	2623.43	1.88	2624.31	20.00	20.01	20.00	21.51	J-2821	(N/A)	16.94	J-1198
98	J-46	Lakes	TRUE	1.00	2624.77	1.20	2624.97	20.00	20.01	20.00	20.13	J-782	(N/A)	17.23	J-1198
6630	J-3587	Forest	TRUE	1.00	2624.89	1.68	2625.57	20.00	20.00	20.00	21.80	J-3673	(N/A)	17.16	J-1198
959	J-528	Forest	TRUE	1.00	2627.67	1.08	2627.75	20.00	44.23	20.00	20.01	J-2919	(N/A)	17.10	J-1198
4806	J-2530	Forest	TRUE	1.00	2627.68	1.88	2628.56	20.00	43.03	20.00	20.01	J-2919	(N/A)	17.10	J-1198
4818	J-2536	Forest	TRUE	1.00	2628.14	1.08	2628.21	20.00	47.18	20.00	20.01	J-2919	(N/A)	17.10	J-1198
478	J-268	Forest	TRUE	1.00	2628.14	1.08	2628.21	20.00	48.39	20.00	20.01	J-2919	(N/A)	17.10	J-1198
318	J-166	Forest	TRUE	1.00	2628.74	1.28	2629.02	20.00	49.10	20.00	20.01	J-2919	(N/A)	17.10	J-1198
319	J-167	Forest	TRUE	1.00	2628.75	1.08	2628.82	20.00	48.99	20.00	20.01	J-2919	(N/A)	17.10	J-1198
536	J-304	Forest	TRUE	1.00	2630.50	1.08	2630.58	20.00	27.95	20.00	20.00	J-1217	(N/A)	17.17	J-1198
636	J-365	Forest	TRUE	1.00	2631.09	1.08	2631.17	20.00	45.26	20.00	20.01	J-2919	(N/A)	17.10	J-1198
4798	J-2526	Forest	TRUE	1.00	2631.09	1.28	2631.37	20.00	44.01	20.00	20.01	J-2919	(N/A)	17.10	J-1198
8483	J-4193	Forest	TRUE	1.00	2632.14	1.48	2632.62	20.00	48.44	20.00	20.01	J-2919	(N/A)	17.10	J-1198
637	J-366	Forest	TRUE	1.00	2632.14	1.28	2632.42	20.00	46.50	20.00	20.01	J-2919	(N/A)	17.10	J-1198
121	J-58	Forest	TRUE	1.00	2632.35	1.08	2632.43	20.00	69.54	20.00	20.00	J-2145	(N/A)	17.18	J-1198
7872	J-4135	Forest	TRUE	1.00	2632.74	1.68	2633.42	20.00	20.01	20.00	24.00	J-1197	(N/A)	16.93	J-1198
4570	J-2398	Forest	TRUE	1.00	2633.74	1.48	2634.22	20.00	56.92	20.00	20.01	J-2919	(N/A)	17.10	J-1198
4571	J-2399	Forest	TRUE	1.00	2633.74	1.08	2633.82	20.00	56.21	20.00	20.01	J-2919	(N/A)	17.10	J-1198
4836	J-2547	Forest	TRUE	1.00	2634.13	1.08	2634.21	20.00	50.08	20.00	20.01	J-2919	(N/A)	17.10	J-1198
907	J-507	Forest	TRUE	1.00	2634.13	1.08	2634.21	20.00	51.04	20.00	20.01	J-2919	(N/A)	17.10	J-1198
4996	J-2640	Forest	TRUE	1.00	2635.09	1.28	2635.37	20.00	47.60	20.00	20.00	J-2919	(N/A)	17.11	J-1198
4995	J-2639	Forest	TRUE	1.00	2635.09	1.28	2635.37	20.00	48.48	20.00	20.00	J-2919	(N/A)	17.11	J-1198
939	J-518	Forest	TRUE	1.00	2636.36	1.28	2636.64	20.00	56.88	20.00	20.01	J-2919	(N/A)	17.09	J-1198
537	J-305	Forest	TRUE	1.00	2637.51	1.28	2637.78	20.00	24.37	20.00	20.00	J-1217	(N/A)	17.17	J-1198
6398	J-3450	Forest	TRUE	1.00	2637.56	1.08	2637.63	20.00	22.76	20.00	20.00	J-1217	(N/A)	17.17	J-1198
7241	J-3930	Forest	TRUE	1.00	2641.86	1.88	2642.74	20.00	20.00	20.00	20.53	J-576	(N/A)	16.54	J-1198
124	J-60	Forest	TRUE	1.00	2647.20	1.28	2647.47	20.00	51.99	20.00	20.00	J-941	(N/A)	17.14	J-1198
6700	J-3628	Forest	TRUE	1.00	2647.20	1.08	2647.28	20.00	49.85	20.00	20.00	J-941	(N/A)	17.14	J-1198
6042	J-3237	Forest	TRUE	1.00	2651.56	1.88	2652.44	20.00	20.00	20.00	21.56	J-3236	(N/A)	16.91	J-1198
5314	J-2821	Forest	TRUE	1.00	2652.09	2.28	2653.37	20.00	20.11	20.00	20.03	J-2822	(N/A)	16.94	J-1198
4939	J-2607	Lakes	TRUE	1.00	2652.43	1.20	2652.63	20.00	20.01	20.00	20.11	J-46	(N/A)	17.23	J-1198
97	J-45	Lakes	TRUE	1.00	2653.89	1.37	2654.26	20.00	21.03	20.00	20.00	J-46	(N/A)	17.23	J-1198
850	J-479	Forest	TRUE	1.00	2653.98	1.28	2654.26	20.00	61.08	20.00	20.01	J-2919	(N/A)	17.09	J-1198
8502	J-4204	Forest	TRUE	1.00	2653.99	1.08	2654.06	20.00	63.33	20.00	20.01	J-2919	(N/A)	17.09	J-1198
1066	J-576	Forest	TRUE	1.00	2656.41	1.08	2656.49	20.00	20.00	20.00	20.00	J-3930	(N/A)	16.53	J-1198
1129	J-598	Forest	TRUE	1.00	2657.67	1.48	2658.15	20.00	60.96	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5136	J-2719	Forest	TRUE	1.00	2657.67	1.08	2657.75	20.00	59.69	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6629	J-3586	Forest	TRUE	1.00	2659.09	1.48	2659.57	20.00	20.19	20.00	20.02	J-3673	(N/A)	17.16	J-1198
4885	J-2575	Forest	TRUE	1.00	2663.41	3.89	2666.30	20.00	31.76	20.00	20.00	J-2280	(N/A)	17.17	J-1198
4886	J-2576	Forest	TRUE	1.00	2663.41	1.88	2664.29	20.00	30.76	20.00	20.00	J-2280	(N/A)	17.17	J-1198
695	J-400	Forest	TRUE	1.00	2665.66	2.48	2667.14	20.00	28.59	20.00	20.00	J-1217	(N/A)	17.17	J-1198
3551	J-1935	Forest	TRUE	1.00	2666.13	1.88	2667.01	20.00	42.59	20.00	20.00	J-1532	(N/A)	17.00	J-1198
120	J-57	Forest	TRUE	1.00	2669.08	1.48	2669.56	20.00	61.70	20.00	20.00	J-2145	(N/A)	17.18	J-1198
6008	J-3217	Forest	TRUE	1.00	2669.08	1.48	2669.56	20.00	60.42	20.00	20.00	J-2145	(N/A)	17.18	J-1198
3618	J-1973	Forest	TRUE	1.00	2669.25	1.28	2669.53	20.00	20.00	20.00	24.25	J-1197	(N/A)	17.17	J-1198
851	J-480	Forest	TRUE	1.00	2670.15	1.08	2670.23	20.00	63.56	20.00	20.01	J-2919	(N/A)	17.09	J-1198
5170	J-2739	Forest	TRUE	1.00	2670.15	1.08	2670.23	20.00	62.37	20.00	20.01	J-2919	(N/A)	17.09	J-1198
6041	J-3236	Forest	TRUE	1.00	2680.63	1.48	2681.11	20.00	20.00	20.00	20.25	J-3237	(N/A)	16.91	J-1198
130	J-64	Forest	TRUE	1.00	2681.10	1.48	2681.58	20.00	22.70	20.00	20.00	J-2267	(N/A)	16.73	J-1198
700	J-403	Stewartsville	TRUE	1.00	2687.23	1.11	2687.34	20.00	75.84	20.00	20.00	J-676	(N/A)	17.23	J-1198
701	J-404	Stewartsville	TRUE	1.00	2687.23	1.11	2687.34	20.00	77.82	20.00	20.00	J-676	(N/A)	17.23	J-1198
5216	J-2764	Forest	TRUE	1.00	2688.69	1.08	2688.76	20.00	66.34	20.00	20.01	J-2919	(N/A)	17.08	J-1198
5215	J-2763	Forest	TRUE	1.00	2688.69	1.28	2688.97	20.00	67.83	20.00	20.01	J-2919	(N/A)	17.08	J-1198
4481	J-2347	Forest	TRUE	1.00	2689.09	1.68	2689.77	20.00	20.00	20.00	20.37	J-2272	(N/A)	16.92	J-1198
4270	J-2272														

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6696	J-3626	Forest	TRUE	1.00	2723.65	2.88	2725.53	20.00	20.00	20.00	21.65	J-967	(N/A)	16.90	J-1198
6039	J-3235	Forest	TRUE	1.00	2725.76	1.68	2726.44	20.00	40.40	20.00	20.00	J-2280	(N/A)	17.17	J-1198
6038	J-3234	Forest	TRUE	1.00	2725.76	1.48	2726.24	20.00	38.68	20.00	20.00	J-2280	(N/A)	17.17	J-1198
6795	J-3684	Forest	TRUE	1.00	2726.59	1.08	2726.67	20.00	30.95	20.00	20.00	J-1115	(N/A)	16.91	J-1198
6796	J-3685	Forest	TRUE	1.00	2726.59	1.08	2726.67	20.00	29.36	20.00	20.00	J-1115	(N/A)	16.91	J-1198
5667	J-3025	Forest	TRUE	1.00	2728.18	1.28	2728.46	20.00	20.00	20.00	21.83	J-2019	(N/A)	16.89	J-1198
7953	J-4151	Forest	TRUE	1.00	2735.99	2.68	2737.67	20.00	20.58	20.00	20.00	J-2822	(N/A)	16.92	J-1198
2103	J-1111	Forest	TRUE	1.00	2736.18	1.48	2736.66	20.00	28.08	20.00	20.00	J-1115	(N/A)	16.91	J-1198
4834	J-2546	Forest	TRUE	1.00	2737.66	1.08	2737.74	20.00	20.35	20.00	20.03	J-832	(N/A)	16.91	J-1198
4833	J-2545	Forest	TRUE	1.00	2738.11	1.08	2738.19	20.00	21.40	20.00	20.00	J-832	(N/A)	16.91	J-1198
3609	J-1968	Lakes	TRUE	1.00	2739.88	1.20	2740.08	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
4002	J-2164	Forest	TRUE	1.00	2740.04	1.88	2740.93	20.00	20.55	20.00	20.01	J-3029	(N/A)	16.92	J-1198
7595	J-4059	Forest	TRUE	1.00	2744.23	1.88	2745.11	20.00	43.38	20.00	20.00	J-2280	(N/A)	17.17	J-1198
432	J-240	Forest	TRUE	1.00	2746.01	1.48	2746.49	20.00	37.55	20.00	20.00	J-2919	(N/A)	17.15	J-1198
1604	J-799	Forest	TRUE	1.00	2747.04	1.08	2747.12	20.00	30.05	20.00	20.00	J-1115	(N/A)	16.91	J-1198
392	J-214	Forest	TRUE	1.00	2747.07	1.08	2747.15	20.00	36.92	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5354	J-2845	Forest	TRUE	1.00	2747.08	1.28	2747.35	20.00	35.29	20.00	20.00	J-2919	(N/A)	17.15	J-1198
3345	J-1820	Forest	TRUE	1.00	2747.38	1.28	2747.66	20.00	58.23	20.00	20.00	J-941	(N/A)	17.14	J-1198
106	J-51	Forest	TRUE	1.00	2747.38	1.08	2747.46	20.00	64.60	20.00	20.00	J-941	(N/A)	17.14	J-1198
393	J-215	Forest	TRUE	1.00	2747.65	1.48	2748.13	20.00	36.58	20.00	20.00	J-2919	(N/A)	17.15	J-1198
7677	J-4085	Forest	TRUE	1.00	2748.26	1.48	2748.74	20.00	20.00	20.00	24.00	J-1197	(N/A)	16.92	J-1198
1031	J-560	Forest	TRUE	1.00	2751.24	1.28	2751.52	20.00	71.97	20.00	20.01	J-2919	(N/A)	17.07	J-1198
5076	J-2687	Forest	TRUE	1.00	2751.24	1.28	2751.52	20.00	70.71	20.00	20.01	J-2919	(N/A)	17.07	J-1198
145	J-71	Forest	TRUE	1.00	2751.78	2.48	2753.26	20.00	44.58	20.00	20.00	J-2145	(N/A)	17.18	J-1198
6695	J-3625	Forest	TRUE	1.00	2752.70	1.08	2752.77	20.00	21.04	20.00	20.00	J-967	(N/A)	16.90	J-1198
4048	J-2185	Forest	TRUE	1.00	2752.70	1.88	2753.58	20.00	22.04	20.00	20.00	J-967	(N/A)	16.90	J-1198
5349	J-2842	Forest	TRUE	1.00	2752.74	1.88	2753.62	20.00	20.00	20.00	21.61	J-2843	(N/A)	16.75	J-1198
1691	J-854	Forest	TRUE	1.00	2753.34	1.08	2753.42	20.00	29.63	20.00	20.00	J-1115	(N/A)	16.91	J-1198
6439	J-3474	Lakes	TRUE	1.00	2755.39	1.20	2755.59	20.00	24.26	20.00	20.00	J-3016	(N/A)	17.23	J-1198
6440	J-3475	Lakes	TRUE	1.00	2755.39	1.20	2755.59	20.00	21.71	20.00	20.00	J-3016	(N/A)	17.23	J-1198
190	J-91	Forest	TRUE	1.00	2758.83	1.08	2758.90	20.00	59.67	20.00	20.00	J-2038	(N/A)	17.17	J-1198
5820	J-3113	Forest	TRUE	1.00	2758.83	1.88	2759.71	20.00	58.82	20.00	20.00	J-2038	(N/A)	17.17	J-1198
5046	J-2670	Forest	TRUE	1.00	2760.12	1.28	2760.40	20.00	20.02	20.00	21.48	J-2669	(N/A)	16.90	J-1198
5070	J-2684	Forest	TRUE	1.00	2760.41	1.48	2760.89	20.00	20.00	20.00	21.48	J-2683	(N/A)	16.99	J-1198
5254	J-2787	Forest	TRUE	1.00	2760.56	1.08	2760.64	20.00	56.88	20.00	20.00	J-2145	(N/A)	17.18	J-1198
1028	J-559	Forest	TRUE	1.00	2760.57	1.88	2761.45	20.00	57.73	20.00	20.00	J-2145	(N/A)	17.18	J-1198
3701	J-2019	Forest	TRUE	1.00	2763.77	1.08	2763.84	20.00	20.14	20.00	20.03	J-3025	(N/A)	16.88	J-1198
1051	J-570	Forest	TRUE	1.00	2764.90	1.08	2764.98	20.00	28.42	20.00	20.00	J-3930	(N/A)	16.49	J-1198
4812	J-2533	Forest	TRUE	1.00	2764.90	1.68	2765.58	20.00	27.64	20.00	20.00	J-3930	(N/A)	16.49	J-1198
35	J-5	Forest	TRUE	1.00	2767.07	1.08	2767.14	20.00	29.40	20.00	20.00	J-1217	(N/A)	17.16	J-1198
36	J-6	Forest	TRUE	1.00	2767.15	2.08	2768.23	20.00	29.48	20.00	20.00	J-1217	(N/A)	17.16	J-1198
156	J-76	Forest	TRUE	1.00	2767.36	1.08	2767.44	20.00	46.47	20.00	20.00	J-1217	(N/A)	17.16	J-1198
5826	J-3116	Forest	TRUE	1.00	2767.36	1.08	2767.44	20.00	45.74	20.00	20.00	J-1217	(N/A)	17.16	J-1198
7706	J-4093	Forest	TRUE	1.00	2767.98	2.08	2769.06	20.00	20.00	20.00	20.68	J-3179	(N/A)	17.17	J-1198
8039	J-4161	Forest	TRUE	1.00	2770.39	1.28	2770.66	20.00	20.00	20.00	23.97	J-1197	(N/A)	16.89	J-1198
84	J-37	Forest	TRUE	1.00	2780.91	1.08	2780.99	20.00	28.15	20.00	20.00	J-1217	(N/A)	17.16	J-1198
5676	J-3030	Forest	TRUE	1.00	2780.99	1.08	2781.07	20.00	26.14	20.00	20.00	J-1217	(N/A)	17.16	J-1198
5045	J-2669	Forest	TRUE	1.00	2785.77	2.08	2786.85	20.00	20.31	20.00	20.02	J-2670	(N/A)	16.90	J-1198
7280	J-3948	Forest	TRUE	1.00	2787.08	1.48	2787.56	20.00	21.17	20.00	20.00	J-3972	(N/A)	17.17	J-1198
7279	J-3947	Forest	TRUE	1.00	2787.08	1.08	2787.16	20.00	20.86	20.00	20.00	J-3972	(N/A)	17.17	J-1198
1076	J-579	Forest	TRUE	1.00	2789.35	1.08	2789.43	20.00	36.99	20.00	20.01	J-1217	(N/A)	17.17	J-1198
6823	J-3700	Forest	TRUE	1.00	2789.35	1.28	2789.63	20.00	34.41	20.00	20.01	J-1217	(N/A)	17.17	J-1198
6422	J-3464	Forest	TRUE	1.00	2789.38	1.28	2789.65	20.00	61.84	20.00	20.00	J-941	(N/A)	17.14	J-1198
117	J-56	Forest	TRUE	1.00	2789.38	1.08	2789.46	20.00	64.53	20.00	20.00	J-941	(N/A)	17.14	J-1198
5350	J-2843	Forest	TRUE	1.00	2792.15	3.49	2794.64	20.00	20.09	20.00	20.02	J-2842	(N/A)	16.74	J-1198
6919	J-3758	Forest	TRUE	1.00	2792.81	1.08	2792.89	20.00	20.00	20.00	21.49	J-3951	(N/A)	17.17	J-1198
6246	J-3361	Forest	TRUE	1.00	2795.18	1.08	2795.26	20.00	20.00	20.00	21.85	J-3360	(N/A)	16.92	J-1198
1607	J-801	Forest	TRUE	1.00	2800.22	1.08	2800.30	20.00	26.51	20.00	20.00	J-1115	(N/A)	16.90	J-1198
7124	J-3873	Forest	TRUE	1.00	2801.48	1.08	2801.55	20.00	26.46	20.00	20.00	J-1115	(N/A)	16.90	J-1198
2502	J-1342	Forest	TRUE	1.00	2802.01	1.08	2802.08	20.00	22.30	20.00	20.00	J-1806	(N/A)	16.47	J-1198
6288	J-3385	Forest	TRUE	1.00	2805.48	1.08	2805.55	20.00	32.50	20.00	20.00	J-2145	(N/A)	17.17	J-1198
126	J-61	Forest	TRUE	1.00	2805.48	1.48	2805.96	20.00	34.54	20.00	20.00	J-2145	(N/A)	17.17	J-1198
7774	J-4113	Forest	TRUE	1.00	2809.20	1.28	2809.48	20.00	20.00	20.00	21.06	J-1599	(N/A)	16.92	J-1198
1599	J-796	Forest	TRUE	1.00	2813.43	1.08	2813.51	20.00	26.00	20.00	20.00	J-1115	(N/A)	16.90	J-1198
993	J-544	Stewartsville	TRUE	1.00	2815.48	1.11	2815.59	20.00	68.63	20.00	20.00	J-676	(N/A)	17.23	J-1198
6509	J-3514	Stewartsville	TRUE	1.00	2815.48	1.11	2815.59	20.00	65.52	20.00	20.00	J-676	(N/A)	17.23	J-1198
1085	J-583	Forest	TRUE	1.00	2817.48	1.08	2817.55	20.00	78.95	20.00	20.00	J-2919	(N/A)	17.06	J-1198
4855	J-2558	Forest	TRUE	1.00	2817.48	1.28	2817.75	20.00	77.83	20.00	20.00	J-2919	(N/A)	17.06	J-1198
1680	J-847	Forest	TRUE	1.00	2817.59	2.48	2819.07	20.00	20.27	20.00	20.02	J-846	(N/A)	16.91	J-1198
6132	J-3292	Lakes	TRUE	1.00	2819.38	1.20	2819.58	20.00	53.86	20.00	20.02	J-2323	(N/A)	17.23	J-1198
5585	J-2976	Forest	TRUE	1.00	2819.62	1.48	2820.10	20.00	20.00	20.00	21.63	J-2977	(N/A)	16.47	J-1198
1096	J-588	Lakes	TRUE	1.00	2819.70	1.20	2819.90	20.00	55.64	20.00	20.00	J-2323	(N/A)	17.23	J-1198
178	J-87	Lakes	TRUE	1.00	2820.72	1.20	2820.92	20.00	48.76	20.00	20.00	J-46	(N/A)	17.23	J-1198
4652	J-2445	Lakes	TRUE	1.00	2820.72	1.20	2820.92	20.00	47.81	20.00	20.00	J-46	(N/A)	17.23	J-1198
5069	J-2683	Forest	TRUE	1.00	2822.45	3.49	2824.93	20.00	20.12	20.00	20.00	J-2684	(N/A)	16.98	J-1198
5226	J-2770	Forest	TRUE	1.00	2828.23	2.08	2829.31	20.00	20.00	20.00	21.91	J-2771	(N/A)	16.98	J-1198
6245	J-3360	Forest	TRUE	1.00	2829.81	2.08	2830.89	20.00	20.00	20.00	20.33	J-3361	(N/A)	16.91	J-1198
5272	J-2797	Forest	TRUE	1.00	2832.57	1.48	2833.04	20.00	20.01	20.00	21.56	J-2796	(N/A)	16.89	J-1198
3932	J-2134	Forest	TRUE	1.00	2833.55	1.68	2834.23	20.00	25.93	20.00	20.02	J-1599	(N/A)	16.92	J-1198
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Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5586	J-2977	Forest	TRUE	1.00	2881.94	1.48	2882.42	20.00	20.01	20.00	20.00	J-2976	(N/A)	16.44	J-1198
3628	J-1978	Forest	TRUE	1.00	2884.16	1.28	2884.44	20.00	36.83	20.00	20.00	J-3	(N/A)	16.44	J-1198
7602	J-4062	Lakes	TRUE	1.00	2884.29	1.37	2884.66	20.00	20.00	20.00	26.02	J-1102	(N/A)	17.23	J-1198
987	J-541	Forest	TRUE	1.00	2886.74	1.08	2886.82	20.00	83.41	20.00	20.00	J-2919	(N/A)	17.05	J-1198
5058	J-2677	Forest	TRUE	1.00	2886.74	1.08	2886.82	20.00	81.93	20.00	20.00	J-2919	(N/A)	17.05	J-1198
8215	J-4171	Forest	TRUE	1.00	2888.96	2.08	2890.04	20.00	20.01	20.00	24.00	J-1197	(N/A)	16.92	J-1198
1707	J-865	Forest	TRUE	1.00	2890.89	2.28	2892.17	20.00	29.63	20.00	20.00	J-1115	(N/A)	16.88	J-1198
7075	J-3846	Forest	TRUE	1.00	2892.61	1.08	2892.68	20.00	20.01	20.00	23.98	J-1197	(N/A)	16.90	J-1198
5739	J-3067	Forest	TRUE	1.00	2896.74	1.48	2897.22	20.00	20.01	20.00	22.22	J-2089	(N/A)	16.90	J-1198
4395	J-2311	Forest	TRUE	1.00	2899.24	3.09	2901.33	20.00	25.50	20.00	20.00	J-2153	(N/A)	17.16	J-1198
4775	J-2513	Forest	TRUE	1.00	2902.52	1.28	2902.80	20.00	20.00	20.00	20.86	J-36	(N/A)	16.43	J-1198
5227	J-2771	Forest	TRUE	1.00	2905.26	2.08	2906.34	20.00	20.48	20.00	20.00	J-2770	(N/A)	16.97	J-1198
4124	J-2217	Forest	TRUE	1.00	2911.73	2.88	2913.61	20.00	39.08	20.00	20.00	J-2698	(N/A)	16.87	J-1198
7493	J-4026	Forest	TRUE	1.00	2912.63	1.48	2913.11	20.00	27.40	20.00	20.00	J-3066	(N/A)	16.89	J-1198
4736	J-2492	Forest	TRUE	1.00	2912.64	1.88	2913.52	20.00	25.07	20.00	20.00	J-3066	(N/A)	16.89	J-1198
4735	J-2491	Forest	TRUE	1.00	2912.64	1.08	2912.71	20.00	23.85	20.00	20.00	J-3066	(N/A)	16.89	J-1198
7204	J-3912	Forest	TRUE	1.00	2916.29	1.48	2916.77	20.00	20.00	20.00	20.68	J-687	(N/A)	17.17	J-1198
76	J-32	Forest	TRUE	1.00	2918.69	1.08	2918.76	20.00	24.42	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6675	J-3613	Forest	TRUE	1.00	2919.05	1.48	2919.53	20.00	21.83	20.00	20.00	J-2919	(N/A)	17.15	J-1198
3621	J-1974	Lakes	TRUE	1.00	2920.01	1.20	2920.20	20.00	25.11	20.00	20.00	J-1896	(N/A)	17.23	J-1198
5259	J-2790	Lakes	TRUE	1.00	2920.01	1.63	2920.64	20.00	23.43	20.00	20.00	J-1896	(N/A)	17.23	J-1198
1095	J-587	Lakes	TRUE	1.00	2922.45	1.20	2922.65	20.00	61.02	20.00	20.02	J-2323	(N/A)	17.23	J-1198
5492	J-2924	Lakes	TRUE	1.00	2922.45	1.20	2922.65	20.00	59.49	20.00	20.02	J-2323	(N/A)	17.23	J-1198
75	J-31	Forest	TRUE	1.00	2925.98	1.28	2926.25	20.00	24.50	20.00	20.00	J-2919	(N/A)	17.15	J-1198
1349	J-687	Forest	TRUE	1.00	2927.18	1.08	2927.25	20.00	20.19	20.00	20.02	J-3912	(N/A)	17.16	J-1198
3841	J-2089	Forest	TRUE	1.00	2932.69	1.88	2933.57	20.00	20.32	20.00	20.03	J-3067	(N/A)	16.89	J-1198
335	J-177	Forest	TRUE	1.00	2933.31	1.08	2933.39	20.00	20.16	20.00	20.02	J-36	(N/A)	16.42	J-1198
82	J-36	Forest	TRUE	1.00	2933.90	1.08	2933.98	20.00	20.00	20.00	20.23	J-177	(N/A)	16.42	J-1198
894	J-501	Forest	TRUE	1.00	2933.92	1.48	2934.39	20.00	22.60	20.00	20.00	J-36	(N/A)	16.42	J-1198
5679	J-3032	Forest	TRUE	1.00	2939.32	1.88	2940.20	20.00	54.61	20.00	20.00	J-4119	(N/A)	16.55	J-1198
5678	J-3031	Forest	TRUE	1.00	2939.32	1.08	2939.40	20.00	52.86	20.00	20.00	J-4119	(N/A)	16.55	J-1198
6188	J-3324	Forest	TRUE	1.00	2940.64	1.88	2941.52	20.00	25.05	20.00	20.00	J-1044	(N/A)	16.42	J-1198
6189	J-3325	Forest	TRUE	1.00	2940.64	2.28	2941.92	20.00	22.32	20.00	20.00	J-1044	(N/A)	16.42	J-1198
4751	J-2500	Forest	TRUE	1.00	2944.43	1.08	2944.51	20.00	73.47	20.00	20.00	J-2919	(N/A)	17.03	J-1198
988	J-542	Forest	TRUE	1.00	2944.44	1.08	2944.51	20.00	74.60	20.00	20.00	J-2919	(N/A)	17.03	J-1198
686	J-395	Forest	TRUE	1.00	2944.99	1.08	2945.07	20.00	43.22	20.00	20.00	J-2145	(N/A)	17.18	J-1198
5672	J-3028	Forest	TRUE	1.00	2945.08	1.88	2945.96	20.00	27.72	20.00	20.00	J-2145	(N/A)	17.18	J-1198
5671	J-3027	Forest	TRUE	1.00	2945.11	1.88	2945.99	20.00	25.86	20.00	20.00	J-2145	(N/A)	17.18	J-1198
81	J-35	Forest	TRUE	1.00	2946.29	1.08	2946.37	20.00	20.00	20.00	20.79	J-36	(N/A)	16.42	J-1198
7048	J-3830	Forest	TRUE	1.00	2946.59	1.88	2947.47	20.00	20.01	20.00	23.80	J-2919	(N/A)	16.99	J-1198
161	J-79	Forest	TRUE	1.00	2956.73	1.28	2957.00	20.00	51.74	20.00	20.00	J-1217	(N/A)	17.15	J-1198
5778	J-3089	Forest	TRUE	1.00	2956.73	1.08	2956.80	20.00	51.34	20.00	20.00	J-1217	(N/A)	17.15	J-1198
6747	J-3655	Forest	TRUE	1.00	2962.91	2.08	2963.99	20.00	20.00	20.00	23.35	J-3656	(N/A)	16.96	J-1198
1704	J-863	Forest	TRUE	1.00	2971.59	1.48	2972.07	20.00	20.61	20.00	20.00	J-2703	(N/A)	16.88	J-1198
1610	J-803	Forest	TRUE	1.00	2973.81	2.08	2974.89	20.00	24.28	20.00	20.02	J-3904	(N/A)	16.40	J-1198
874	J-491	Forest	TRUE	1.00	2974.34	1.48	2974.82	20.00	50.39	20.00	20.00	J-3904	(N/A)	16.40	J-1198
1192	J-624	Forest	TRUE	1.00	2974.34	1.08	2974.42	20.00	46.20	20.00	20.00	J-3904	(N/A)	16.40	J-1198
1591	J-791	Forest	TRUE	1.00	2974.34	1.08	2974.42	20.00	43.34	20.00	20.00	J-3904	(N/A)	16.40	J-1198
7283	J-3949	Forest	TRUE	1.00	2976.25	1.08	2976.33	20.00	24.75	20.00	20.00	J-4116	(N/A)	17.16	J-1198
6579	J-3556	Forest	TRUE	1.00	2976.25	1.08	2976.33	20.00	23.86	20.00	20.00	J-4116	(N/A)	17.16	J-1198
7284	J-3950	Forest	TRUE	1.00	2976.26	1.08	2976.33	20.00	23.72	20.00	20.00	J-4116	(N/A)	17.16	J-1198
7649	J-4078	Forest	TRUE	1.00	2976.26	1.08	2976.34	20.00	36.35	20.00	20.00	J-4116	(N/A)	17.16	J-1198
6580	J-3557	Forest	TRUE	1.00	2976.27	1.08	2976.34	20.00	20.34	20.00	20.00	J-4116	(N/A)	17.16	J-1198
4955	J-2616	Forest	TRUE	1.00	2977.57	1.88	2978.45	20.00	20.00	20.00	21.14	J-2012	(N/A)	16.87	J-1198
7452	J-4010	Forest	TRUE	1.00	2978.52	1.08	2978.60	20.00	27.21	20.00	20.00	J-2822	(N/A)	16.88	J-1198
4326	J-2288	Forest	TRUE	1.00	2978.53	2.48	2980.01	20.00	25.21	20.00	20.00	J-2822	(N/A)	16.88	J-1198
4556	J-2390	Forest	TRUE	1.00	2986.52	1.08	2986.60	20.00	20.00	20.00	20.76	J-198	(N/A)	17.16	J-1198
3611	J-1969	Forest	TRUE	1.00	2988.82	1.08	2988.89	20.00	63.58	20.00	20.00	J-2045	(N/A)	14.31	J-1198
5514	J-2936	Forest	TRUE	1.00	2991.38	1.28	2991.65	20.00	26.65	20.00	20.00	J-2822	(N/A)	16.88	J-1198
5513	J-2935	Forest	TRUE	1.00	2991.38	1.88	2992.26	20.00	25.04	20.00	20.00	J-2822	(N/A)	16.88	J-1198
3689	J-2012	Forest	TRUE	1.00	2991.61	2.08	2992.69	20.00	20.00	20.00	20.21	J-2616	(N/A)	16.87	J-1198
4560	J-2392	Lakes	TRUE	1.00	3005.69	1.20	3005.89	20.00	20.00	20.00	20.28	J-4062	(N/A)	17.23	J-1198
2089	J-1102	Lakes	TRUE	1.00	3006.11	1.46	3006.57	20.00	20.64	20.00	20.01	J-4062	(N/A)	17.23	J-1198
4284	J-2276	Forest	TRUE	1.00	3006.57	1.08	3006.64	20.00	24.54	20.00	20.00	J-1044	(N/A)	16.39	J-1198
762	J-435	Forest	TRUE	1.00	3007.03	1.28	3007.30	20.00	64.96	20.00	20.00	J-2919	(N/A)	17.02	J-1198
6596	J-3566	Forest	TRUE	1.00	3007.03	1.28	3007.30	20.00	62.19	20.00	20.00	J-2919	(N/A)	17.02	J-1198
366	J-197	Forest	TRUE	1.00	3007.98	1.08	3008.06	20.00	20.13	20.00	20.02	J-198	(N/A)	17.16	J-1198
395	J-216	Forest	TRUE	1.00	3008.10	1.48	3008.58	20.00	20.18	20.00	20.01	J-198	(N/A)	17.16	J-1198
367	J-198	Forest	TRUE	1.00	3008.45	1.68	3009.13	20.00	20.00	20.00	20.23	J-197	(N/A)	17.16	J-1198
59	J-21	Lakes	TRUE	1.00	3009.26	1.37	3009.63	20.00	53.64	20.00	20.00	J-46	(N/A)	17.23	J-1198
4561	J-2393	Lakes	TRUE	1.00	3011.85	1.20	3012.04	20.00	20.67	20.00	20.00	J-4062	(N/A)	17.23	J-1198
6900	J-3746	Forest	TRUE	1.00	3015.55	1.08	3015.63	20.00	25.75	20.00	20.00	J-2153	(N/A)	17.16	J-1198
6901	J-3747	Forest	TRUE	1.00	3015.57	1.28	3015.85	20.00	22.31	20.00	20.00	J-2153	(N/A)	17.16	J-1198
58	J-20	Lakes	TRUE	1.00	3016.22	1.20	3016.42	20.00	53.58	20.00	20.00	J-46	(N/A)	17.23	J-1198
4658	J-2448	Lakes	TRUE	1.00	3016.22	1.20	3016.42	20.00	52.43	20.00	20.00	J-46	(N/A)	17.23	J-1198
111	J-53	Forest	TRUE	1.00	3016.41	1.08	3016.48	20.00	20.00	20.00	20.52	J-2976	(N/A)	16.39	J-1198
687	J-396	Forest	TRUE	1.00	3017.44	1.08	3017.52	20.00	38.72	20.00	20.00	J-2145	(N/A)	17.18	J-1198
7996	J-4157	Forest	TRUE	1.00	3018.08	1.48	3018.56	20.00	20.00	20.00	23.93	J-1197	(N/A)	16.85	J-1198
3868	J-2101	Forest	TRUE	1.00	3023.60	1.08	3023.68	20.00	27.66	20.00	20.03	J-2729	(N/A)	16.85	J-1198
6306	J-3396														

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
137	J-67	Forest	TRUE	1.00	3082.86	1.88	3083.74	20.00	41.72	20.00	20.00	J-941	(N/A)	17.14	J-1198
6263	J-3371	Forest	TRUE	1.00	3082.87	1.88	3083.75	20.00	38.62	20.00	20.00	J-941	(N/A)	17.14	J-1198
5243	J-2781	Forest	TRUE	1.00	3083.82	2.88	3085.70	20.00	20.00	20.00	21.69	J-2780	(N/A)	17.16	J-1198
3505	J-1911	Forest	TRUE	1.00	3090.17	1.68	3090.85	20.00	20.00	20.00	23.62	J-2919	(N/A)	16.96	J-1198
7094	J-3856	Forest	TRUE	1.00	3099.25	1.88	3100.13	20.00	20.00	20.00	22.98	J-2919	(N/A)	17.16	J-1198
1071	J-578	Forest	TRUE	1.00	3101.14	1.28	3101.42	20.00	38.69	20.00	20.00	J-3901	(N/A)	17.16	J-1198
5416	J-2881	Forest	TRUE	1.00	3101.15	1.08	3101.23	20.00	34.97	20.00	20.00	J-3901	(N/A)	17.16	J-1198
258	J-128	Forest	TRUE	1.00	3101.16	1.08	3101.23	20.00	32.82	20.00	20.00	J-3901	(N/A)	17.16	J-1198
1317	J-680	Forest	TRUE	1.00	3101.27	1.08	3101.35	20.00	47.89	20.00	20.00	J-3901	(N/A)	17.16	J-1198
5399	J-2872	Forest	TRUE	1.00	3101.27	1.08	3101.35	20.00	46.21	20.00	20.00	J-3901	(N/A)	17.16	J-1198
95	J-44	Forest	TRUE	1.00	3101.29	2.08	3102.37	20.00	34.50	20.00	20.00	J-1217	(N/A)	17.14	J-1198
7029	J-3820	Forest	TRUE	1.00	3101.40	1.48	3101.88	20.00	26.12	20.00	20.00	J-1217	(N/A)	17.14	J-1198
259	J-129	Forest	TRUE	1.00	3102.35	1.08	3102.43	20.00	32.85	20.00	20.00	J-3901	(N/A)	17.16	J-1198
299	J-154	Forest	TRUE	1.00	3102.35	1.08	3102.43	20.00	32.85	20.00	20.00	J-3901	(N/A)	17.16	J-1198
3317	J-1804	Lakes	TRUE	1.00	3103.77	4.35	3107.12	20.00	20.00	20.00	26.18	J-1837	(N/A)	17.23	J-1198
6986	J-3795	Forest	TRUE	1.00	3104.47	1.48	3104.95	20.00	20.00	20.00	23.00	J-2919	(N/A)	17.16	J-1198
6908	J-3751	Forest	TRUE	1.00	3110.91	1.88	3111.79	20.00	20.00	20.00	22.98	J-2919	(N/A)	17.16	J-1198
449	J-250	Forest	TRUE	1.00	3111.94	1.08	3112.02	20.00	32.60	20.00	20.00	J-2145	(N/A)	17.18	J-1198
5317	J-2823	Forest	TRUE	1.00	3111.94	1.08	3112.02	20.00	29.95	20.00	20.00	J-2145	(N/A)	17.18	J-1198
613	J-351	Forest	TRUE	1.00	3112.49	1.48	3112.97	20.00	49.30	20.00	20.00	J-2919	(N/A)	17.00	J-1198
439	J-244	Forest	TRUE	1.00	3113.77	1.08	3113.84	20.00	32.39	20.00	20.00	J-3901	(N/A)	17.16	J-1198
440	J-245	Forest	TRUE	1.00	3113.77	1.48	3114.25	20.00	32.33	20.00	20.00	J-3901	(N/A)	17.16	J-1198
6222	J-3345	Lakes	TRUE	1.00	3117.67	1.20	3117.87	20.00	29.47	20.00	20.03	J-2323	(N/A)	17.23	J-1198
8463	J-4183	Lakes	TRUE	1.00	3117.96	1.20	3118.16	20.00	37.55	20.00	20.02	J-2323	(N/A)	17.23	J-1198
7049	J-3831	Forest	TRUE	1.00	3118.38	2.08	3119.46	20.00	20.01	20.00	20.51	J-3830	(N/A)	16.96	J-1198
297	J-153	Lakes	TRUE	1.00	3118.43	1.29	3118.71	20.00	36.27	20.00	20.00	J-2323	(N/A)	17.23	J-1198
296	J-152	Lakes	TRUE	1.00	3118.43	1.20	3118.63	20.00	36.32	20.00	20.00	J-2323	(N/A)	17.23	J-1198
749	J-429	Lakes	TRUE	1.00	3118.43	1.20	3118.63	20.00	37.41	20.00	20.00	J-2323	(N/A)	17.23	J-1198
6223	J-3346	Lakes	TRUE	1.00	3118.43	1.20	3118.63	20.00	26.55	20.00	20.00	J-2323	(N/A)	17.23	J-1198
1287	J-668	Forest	TRUE	1.00	3118.53	1.68	3119.21	20.00	20.00	20.00	24.26	J-1197	(N/A)	17.18	J-1198
7074	J-3845	Forest	TRUE	1.00	3119.57	1.08	3119.64	20.00	20.27	20.00	20.03	J-3846	(N/A)	16.86	J-1198
4709	J-2476	Forest	TRUE	1.00	3123.70	1.08	3123.78	20.00	20.88	20.00	20.01	J-379	(N/A)	16.95	J-1198
6305	J-3395	Forest	TRUE	1.00	3124.12	1.28	3124.40	20.00	20.06	20.00	20.02	J-3396	(N/A)	17.16	J-1198
555	J-316	Forest	TRUE	1.00	3124.38	1.48	3124.85	20.00	22.19	20.00	20.00	J-379	(N/A)	16.95	J-1198
5242	J-2780	Forest	TRUE	1.00	3125.33	2.68	3127.01	20.00	20.05	20.00	20.03	J-2781	(N/A)	17.16	J-1198
6748	J-3656	Forest	TRUE	1.00	3126.44	1.08	3126.52	20.00	20.26	20.00	20.01	J-3655	(N/A)	16.93	J-1198
614	J-352	Forest	TRUE	1.00	3130.27	1.28	3130.54	20.00	47.09	20.00	20.00	J-2919	(N/A)	16.99	J-1198
8517	J-4210	Forest	TRUE	1.00	3130.27	1.48	3130.75	20.00	44.46	20.00	20.00	J-2919	(N/A)	16.99	J-1198
450	J-251	Forest	TRUE	1.00	3131.36	1.08	3131.44	20.00	32.12	20.00	20.00	J-2145	(N/A)	17.18	J-1198
66	J-25	Forest	TRUE	1.00	3131.41	1.08	3131.49	20.00	35.10	20.00	20.00	J-1217	(N/A)	17.14	J-1198
67	J-26	Forest	TRUE	1.00	3131.41	1.08	3131.49	20.00	34.09	20.00	20.00	J-1217	(N/A)	17.14	J-1198
5457	J-2904	Forest	TRUE	1.00	3137.48	1.08	3137.56	20.00	36.15	20.00	20.00	J-2822	(N/A)	16.86	J-1198
5458	J-2905	Forest	TRUE	1.00	3137.50	1.48	3137.98	20.00	33.91	20.00	20.00	J-2822	(N/A)	16.86	J-1198
7559	J-4050	Forest	TRUE	1.00	3138.00	1.88	3138.88	20.00	28.30	20.00	20.00	J-1115	(N/A)	16.84	J-1198
7079	J-3848	Lakes	TRUE	1.00	3141.49	1.29	3141.77	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.23	J-1198
4518	J-2368	Forest	TRUE	1.00	3143.29	1.48	3143.77	20.00	20.00	20.00	20.86	J-2011	(N/A)	16.84	J-1198
38	J-7	Forest	TRUE	1.00	3143.93	1.48	3144.41	20.00	21.46	20.00	20.00	J-2339	(N/A)	16.33	J-1198
39	J-8	Forest	TRUE	1.00	3143.93	1.08	3144.01	20.00	21.14	20.00	20.00	J-2339	(N/A)	16.33	J-1198
4483	J-2348	Forest	TRUE	1.00	3143.93	1.08	3144.01	20.00	20.50	20.00	20.00	J-2339	(N/A)	16.33	J-1198
3968	J-2149	Forest	TRUE	1.00	3145.80	1.68	3146.48	20.00	20.18	20.00	20.01	J-3655	(N/A)	16.93	J-1198
840	J-474	Forest	TRUE	1.00	3147.15	1.28	3147.43	20.00	30.62	20.00	20.00	J-198	(N/A)	17.16	J-1198
5687	J-3036	Forest	TRUE	1.00	3147.19	1.88	3148.07	20.00	28.31	20.00	20.00	J-198	(N/A)	17.16	J-1198
715	J-411	Stewartsville	TRUE	1.00	3147.23	1.26	3147.49	20.00	55.41	20.00	20.00	J-676	(N/A)	17.23	J-1198
6462	J-3487	Stewartsville	TRUE	1.00	3147.23	1.26	3147.49	20.00	52.26	20.00	20.00	J-676	(N/A)	17.23	J-1198
5797	J-3100	Forest	TRUE	1.00	3148.42	1.08	3148.50	20.00	35.95	20.00	20.00	J-1519	(N/A)	17.18	J-1198
5796	J-3099	Forest	TRUE	1.00	3148.42	1.48	3148.90	20.00	33.65	20.00	20.00	J-1519	(N/A)	17.18	J-1198
5555	J-2959	Forest	TRUE	1.00	3149.82	2.28	3151.10	20.00	20.00	20.00	21.70	J-2919	(N/A)	17.16	J-1198
6996	J-3801	Forest	TRUE	1.00	3151.29	1.08	3151.36	20.00	20.01	20.00	20.12	J-3802	(N/A)	16.82	J-1198
3688	J-2011	Forest	TRUE	1.00	3154.30	1.88	3155.18	20.00	20.00	20.00	20.13	J-2368	(N/A)	16.84	J-1198
556	J-317	Forest	TRUE	1.00	3154.82	1.68	3155.50	20.00	22.24	20.00	20.00	J-379	(N/A)	16.94	J-1198
87	J-39	Forest	TRUE	1.00	3155.05	2.48	3156.53	20.00	25.21	20.00	20.00	J-2919	(N/A)	17.15	J-1198
3949	J-2141	Forest	TRUE	1.00	3155.46	2.68	3157.15	20.00	22.26	20.00	20.02	J-1599	(N/A)	16.86	J-1198
232	J-111	Forest	TRUE	1.00	3155.90	1.68	3156.58	20.00	35.84	20.00	20.00	J-3807	(N/A)	17.16	J-1198
1229	J-643	Forest	TRUE	1.00	3156.17	1.28	3156.45	20.00	40.14	20.00	20.01	J-2817	(N/A)	17.15	J-1198
5279	J-2801	Forest	TRUE	1.00	3156.23	1.68	3156.91	20.00	34.14	20.00	20.00	J-3807	(N/A)	17.16	J-1198
231	J-110	Forest	TRUE	1.00	3156.23	1.68	3156.91	20.00	35.97	20.00	20.00	J-3807	(N/A)	17.16	J-1198
6666	J-3608	Forest	TRUE	1.00	3156.29	1.28	3156.57	20.00	20.00	20.00	22.92	J-3926	(N/A)	16.65	J-1198
744	J-426	Forest	TRUE	1.00	3161.92	1.08	3162.00	20.00	46.15	20.00	20.00	J-2919	(N/A)	16.99	J-1198
4642	J-2440	Forest	TRUE	1.00	3161.92	1.08	3162.00	20.00	44.78	20.00	20.00	J-2919	(N/A)	16.99	J-1198
1772	J-907	Forest	TRUE	1.00	3162.42	1.08	3162.50	20.00	20.01	20.00	20.34	J-3801	(N/A)	16.82	J-1198
7741	J-4105	Forest	TRUE	1.00	3163.04	1.68	3163.72	20.00	24.56	20.00	20.00	J-3954	(N/A)	16.93	J-1198
86	J-38	Forest	TRUE	1.00	3164.64	2.28	3165.92	20.00	24.57	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6866	J-3725	Forest	TRUE	1.00	3166.63	1.48	3167.11	20.00	28.07	20.00	20.00	J-1115	(N/A)	16.84	J-1198
6867	J-3726	Forest	TRUE	1.00	3166.64	1.48	3167.12	20.00	24.33	20.00	20.00	J-1115	(N/A)	16.84	J-1198
2428	J-1301	Lakes	TRUE	1.00	3168.85	1.20	3169.05	20.00	20.00	20.00	21.66	J-1359	(N/A)	17.23	J-1198
4323	J-2287	Forest	TRUE	1.00	3170.36	1.88	3171.24	20.00	35.00	20.00	20.00	J-1519	(N/A)	17.18	J-1198
5934	J-3176	Forest	TRUE	1.00	3170.61	1.88	3171.50	20.00	20.01	20.00	22.55	J-3175	(N/A)	16.82	J-1198
8060	J-4162	Lakes	TRUE	1.00	3176.15	1.20	3176.35	20.00	20.00	20.00	31.77	J-4062	(N/A)	17.23	J-1198
4485	J-2349	Forest	TRUE	1.00	3183.84	1.48	3184.32	20.00	20.00	20.00	20.12	J-2703	(N/A)	16.85	J-1198
7206	J-3913														

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6769	J-3668	Forest	TRUE	1.00	3210.23	1.48	3210.71	20.00	22.12	20.00	20.00	J-3901	(N/A)	17.16	J-1198
1146	J-606	Forest	TRUE	1.00	3215.19	1.48	3215.67	20.00	20.10	20.00	20.02	J-2959	(N/A)	17.15	J-1198
4095	J-2206	Forest	TRUE	1.00	3215.68	2.28	3216.96	20.00	20.00	20.00	20.22	J-3350	(N/A)	16.84	J-1198
6864	J-3724	Forest	TRUE	1.00	3217.98	1.28	3218.26	20.00	27.73	20.00	20.00	J-2817	(N/A)	17.15	J-1198
1206	J-632	Forest	TRUE	1.00	3217.98	1.88	3218.86	20.00	31.59	20.00	20.00	J-2817	(N/A)	17.15	J-1198
6384	J-3442	Lakes	TRUE	1.00	3219.89	1.29	3220.17	20.00	20.00	20.00	22.84	J-1968	(N/A)	17.23	J-1198
2780	J-1504	Forest	TRUE	1.00	3221.66	1.68	3222.34	20.00	27.36	20.00	20.00	J-1503	(N/A)	16.83	J-1198
2483	J-1332	Lakes	TRUE	1.00	3224.93	1.20	3225.13	20.00	23.23	20.00	20.00	J-1575	(N/A)	17.23	J-1198
3341	J-1818	Lakes	TRUE	1.00	3228.83	1.46	3229.29	20.00	22.49	20.00	20.00	J-1968	(N/A)	17.23	J-1198
7711	J-4095	Lakes	TRUE	1.00	3231.93	1.20	3232.13	20.00	20.00	20.00	28.97	J-3848	(N/A)	17.23	J-1198
5933	J-3175	Forest	TRUE	1.00	3233.93	1.68	3234.60	20.00	20.06	20.00	20.03	J-3176	(N/A)	16.81	J-1198
5250	J-2785	Forest	TRUE	1.00	3234.77	1.48	3235.25	20.00	20.00	20.00	21.82	J-2222	(N/A)	16.88	J-1198
346	J-184	Forest	TRUE	1.00	3239.31	1.08	3239.39	20.00	32.09	20.00	20.00	J-3807	(N/A)	17.15	J-1198
381	J-207	Lakes	TRUE	1.00	3239.61	258.22	3496.83	20.00	25.68	20.00	20.00	J-3535	(N/A)	17.23	J-1198
495	J-278	Lakes	TRUE	1.00	3239.61	1.29	3239.90	20.00	20.58	20.00	20.00	J-3535	(N/A)	17.23	J-1198
496	J-279	Lakes	TRUE	1.00	3239.61	1.20	3239.81	20.00	21.33	20.00	20.00	J-3535	(N/A)	17.23	J-1198
1136	J-601	Lakes	TRUE	1.00	3239.61	1.55	3240.15	20.00	20.63	20.00	20.00	J-3535	(N/A)	17.23	J-1198
347	J-185	Forest	TRUE	1.00	3240.37	1.48	3240.85	20.00	31.97	20.00	20.00	J-3807	(N/A)	17.15	J-1198
7400	J-3993	Forest	TRUE	1.00	3240.37	1.48	3240.85	20.00	29.37	20.00	20.00	J-3807	(N/A)	17.15	J-1198
7232	J-3926	Forest	TRUE	1.00	3241.36	1.28	3241.64	20.00	20.00	20.00	21.08	J-3608	(N/A)	16.62	J-1198
3461	J-1885	Forest	TRUE	1.00	3241.61	1.48	3242.08	20.00	21.40	20.00	20.00	J-2211	(N/A)	16.86	J-1198
4554	J-2389	Forest	TRUE	1.00	3241.61	1.08	3241.68	20.00	20.42	20.00	20.00	J-2211	(N/A)	16.86	J-1198
4043	J-2182	Forest	TRUE	1.00	3244.04	2.68	3245.73	20.00	30.59	20.00	20.00	J-3399	(N/A)	16.84	J-1198
669	J-386	Forest	TRUE	1.00	3245.91	2.08	3246.99	20.00	31.50	20.00	20.00	J-3807	(N/A)	17.15	J-1198
5591	J-2980	Forest	TRUE	1.00	3245.91	1.48	3246.38	20.00	29.21	20.00	20.00	J-3807	(N/A)	17.15	J-1198
7837	J-4130	Forest	TRUE	1.00	3250.32	2.48	3251.81	20.00	37.41	20.00	20.00	J-2822	(N/A)	16.83	J-1198
7641	J-4076	Forest	TRUE	1.00	3251.47	1.08	3251.55	20.00	21.84	20.00	20.00	J-3846	(N/A)	16.84	J-1198
8481	J-4192	Forest	TRUE	1.00	3251.47	1.68	3252.15	20.00	21.09	20.00	20.00	J-3846	(N/A)	16.84	J-1198
327	J-172	Lakes	TRUE	1.00	3253.60	1.20	3253.80	20.00	41.64	20.00	20.02	J-2323	(N/A)	17.23	J-1198
328	J-173	Lakes	TRUE	1.00	3253.60	1.29	3253.88	20.00	41.01	20.00	20.02	J-2323	(N/A)	17.23	J-1198
3191	J-1729	Lakes	TRUE	1.00	3256.10	1.20	3256.30	20.00	20.11	20.00	20.00	J-1575	(N/A)	17.23	J-1198
3036	J-1633	Lakes	TRUE	1.00	3256.11	1.20	3256.30	20.00	23.26	20.00	20.00	J-1575	(N/A)	17.23	J-1198
1208	J-633	Forest	TRUE	1.00	3257.98	1.28	3258.26	20.00	20.13	20.00	20.01	J-3751	(N/A)	17.16	J-1198
1355	J-688	Forest	TRUE	1.00	3259.66	1.08	3259.74	20.00	22.20	20.00	20.00	J-2817	(N/A)	17.15	J-1198
3272	J-1779	Lakes	TRUE	1.00	3260.58	1.20	3260.78	20.00	20.20	20.00	20.05	J-3759	(N/A)	17.23	J-1198
4715	J-2479	Forest	TRUE	1.00	3265.47	1.08	3265.55	20.00	52.98	20.00	20.00	J-2919	(N/A)	16.96	J-1198
903	J-505	Forest	TRUE	1.00	3265.47	1.08	3265.55	20.00	54.44	20.00	20.00	J-2919	(N/A)	16.96	J-1198
3840	J-2088	Forest	TRUE	1.00	3267.98	1.88	3268.86	20.00	25.32	20.00	20.00	J-2703	(N/A)	16.83	J-1198
6533	J-3528	Lakes	TRUE	1.00	3268.99	1.20	3269.19	20.00	20.00	20.00	22.97	J-661	(N/A)	17.23	J-1198
6665	J-3607	Forest	TRUE	1.00	3271.21	1.08	3271.28	20.00	20.44	20.00	20.00	J-3926	(N/A)	16.62	J-1198
2841	J-1540	Forest	TRUE	1.00	3271.61	1.88	3272.49	20.00	31.26	20.00	20.00	J-1539	(N/A)	16.80	J-1198
690	J-397	Lakes	TRUE	1.00	3272.02	1.20	3272.22	20.00	23.18	20.00	20.00	J-1575	(N/A)	17.23	J-1198
4648	J-2443	Lakes	TRUE	1.00	3272.10	1.72	3272.82	20.00	20.00	20.00	21.33	J-658	(N/A)	17.23	J-1198
3340	J-1817	Lakes	TRUE	1.00	3272.52	1.37	3272.89	20.00	20.30	20.00	20.04	J-1968	(N/A)	17.23	J-1198
5807	J-3106	Forest	TRUE	1.00	3273.59	1.28	3273.86	20.00	36.61	20.00	20.00	J-2817	(N/A)	17.15	J-1198
854	J-482	Forest	TRUE	1.00	3273.59	2.08	3274.67	20.00	38.78	20.00	20.00	J-2817	(N/A)	17.15	J-1198
185	J-89	Lakes	TRUE	1.00	3276.11	1.20	3276.31	20.00	42.08	20.00	20.00	J-46	(N/A)	17.23	J-1198
4810	J-2532	Lakes	TRUE	1.00	3276.11	1.20	3276.31	20.00	40.37	20.00	20.00	J-46	(N/A)	17.23	J-1198
4133	J-2222	Forest	TRUE	1.00	3278.29	3.69	3280.98	20.00	20.00	20.00	20.00	J-2785	(N/A)	16.87	J-1198
5621	J-2997	Forest	TRUE	1.00	3279.17	1.08	3279.24	20.00	35.54	20.00	20.00	J-3807	(N/A)	17.15	J-1198
276	J-140	Forest	TRUE	1.00	3279.17	3.09	3281.25	20.00	37.89	20.00	20.00	J-3807	(N/A)	17.15	J-1198
275	J-139	Forest	TRUE	1.00	3279.67	1.88	3280.55	20.00	38.03	20.00	20.00	J-3807	(N/A)	17.15	J-1198
1810	J-931	Forest	TRUE	1.00	3286.61	1.48	3287.09	20.00	20.01	20.00	21.02	J-902	(N/A)	16.79	J-1198
187	J-90	Forest	TRUE	1.00	3287.91	2.48	3289.39	20.00	20.01	20.00	20.98	J-3176	(N/A)	16.80	J-1198
1268	J-658	Lakes	TRUE	1.00	3290.68	1.29	3290.97	20.00	20.00	20.00	20.00	J-2443	(N/A)	17.23	J-1198
853	J-481	Forest	TRUE	1.00	3293.21	1.28	3293.49	20.00	44.58	20.00	20.00	J-2919	(N/A)	17.15	J-1198
2112	J-1117	Forest	TRUE	1.00	3293.56	1.48	3294.03	20.00	21.72	20.00	20.00	J-1116	(N/A)	16.82	J-1198
5056	J-2676	Forest	TRUE	1.00	3296.87	1.08	3296.95	20.00	27.78	20.00	20.00	J-2145	(N/A)	17.17	J-1198
765	J-437	Forest	TRUE	1.00	3296.87	1.48	3297.35	20.00	29.52	20.00	20.00	J-2145	(N/A)	17.17	J-1198
7520	J-4036	Forest	TRUE	1.00	3298.96	1.08	3299.04	20.00	20.00	20.00	20.46	J-2842	(N/A)	16.61	J-1198
662	J-382	Forest	TRUE	1.00	3300.70	2.48	3302.18	20.00	55.06	20.00	20.00	J-2919	(N/A)	17.15	J-1198
661	J-381	Forest	TRUE	1.00	3304.46	1.08	3304.54	20.00	58.03	20.00	20.00	J-2919	(N/A)	17.15	J-1198
4692	J-2467	Forest	TRUE	1.00	3304.47	1.08	3304.54	20.00	57.49	20.00	20.00	J-2919	(N/A)	17.15	J-1198
5972	J-3197	Lakes	TRUE	1.00	3306.12	1.20	3306.32	20.00	22.88	20.00	20.00	J-1575	(N/A)	17.23	J-1198
691	J-398	Lakes	TRUE	1.00	3306.13	1.29	3306.41	20.00	25.15	20.00	20.00	J-1575	(N/A)	17.23	J-1198
5793	J-3097	Forest	TRUE	1.00	3307.93	1.08	3308.01	20.00	31.76	20.00	20.00	J-1539	(N/A)	16.79	J-1198
5794	J-3098	Forest	TRUE	1.00	3307.93	1.28	3308.21	20.00	29.74	20.00	20.00	J-1539	(N/A)	16.79	J-1198
682	J-393	Forest	TRUE	1.00	3308.98	2.28	3310.27	20.00	53.20	20.00	20.00	J-2919	(N/A)	17.15	J-1198
1169	J-614	Forest	TRUE	1.00	3309.14	1.48	3309.61	20.00	26.56	20.00	20.00	J-3807	(N/A)	17.15	J-1198
4684	J-2463	Forest	TRUE	1.00	3309.14	2.48	3310.62	20.00	25.30	20.00	20.00	J-3807	(N/A)	17.15	J-1198
5281	J-2802	Lakes	TRUE	1.00	3309.59	2.41	3311.00	20.00	27.20	20.00	20.00	J-3987	(N/A)	17.23	J-1198
5282	J-2803	Lakes	TRUE	1.00	3309.59	1.81	3310.39	20.00	25.30	20.00	20.00	J-3987	(N/A)	17.23	J-1198
4490	J-2352	Forest	TRUE	1.00	3309.70	1.68	3310.38	20.00	45.13	20.00	20.00	J-2919	(N/A)	17.15	J-1198
1283	J-666	Forest	TRUE	1.00	3309.70	1.68	3310.38	20.00	46.06	20.00	20.00	J-2919	(N/A)	17.15	J-1198
7519	J-4035	Forest	TRUE	1.00	3313.00	1.08	3313.07	20.00	22.04	20.00	20.00	J-2842	(N/A)	16.60	J-1198
1274	J-661	Lakes	TRUE	1.00	3314.10	1.20	3314.30	20.00	20.00	20.00	20.21	J-3528	(N/A)	17.23	J-1198
203	J-94	Forest	TRUE	1.00	3318.01	2.28	3319.29	20.00	34.20	20.00	20.00	J-2919	(N/A)	17.15	J-1198
3511	J-1915	Forest	TRUE	1.00	3322.79	1.48	3323.27	20.00	35.80	20.00	20.00	J-1532	(N/A)	16.91	J-1198
580	J-332	Forest	TRUE	1.00	3324.61	1.08	3324.68	20.00	38.21	20.00	20.00	J-2919	(N/A)	16.95	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6047	J-3240	Forest	TRUE	1.00	3365.86	1.28	3366.14	20.00	20.00	20.00	22.99	J-3241	(N/A)	16.90	J-1198
4441	J-2325	Forest	TRUE	1.00	3371.14	3.29	3373.42	20.00	20.00	20.00	23.88	J-1197	(N/A)	16.80	J-1198
3510	J-1914	Forest	TRUE	1.00	3379.74	1.48	3380.22	20.00	23.14	20.00	20.00	J-1532	(N/A)	16.90	J-1198
4840	J-2439	Forest	TRUE	1.00	3379.76	1.48	3380.24	20.00	21.64	20.00	20.00	J-1532	(N/A)	16.90	J-1198
7437	J-4006	Forest	TRUE	1.00	3380.67	3.29	3382.95	20.00	21.20	20.00	20.00	J-3926	(N/A)	16.59	J-1198
7536	J-4042	Lakes	TRUE	1.00	3382.26	1.20	3382.46	20.00	20.00	20.00	24.39	J-2016	(N/A)	17.23	J-1198
5911	J-3163	Lakes	TRUE	1.00	3389.10	1.20	3389.30	20.00	20.00	20.00	23.25	J-637	(N/A)	17.23	J-1198
7327	J-3965	Lakes	TRUE	1.00	3393.72	1.20	3393.92	20.00	20.00	20.00	21.50	J-3961	(N/A)	17.23	J-1198
2868	J-1554	Forest	TRUE	1.00	3394.10	2.28	3395.38	20.00	32.49	20.00	20.02	J-1532	(N/A)	16.90	J-1198
5763	J-3081	Lakes	TRUE	1.00	3398.98	1.46	3399.44	20.00	20.00	20.00	22.07	J-3163	(N/A)	17.23	J-1198
1333	J-684	Forest	TRUE	1.00	3399.76	1.48	3400.24	20.00	43.35	20.00	20.00	J-3807	(N/A)	17.15	J-1198
5719	J-3055	Forest	TRUE	1.00	3399.76	1.48	3400.24	20.00	40.53	20.00	20.00	J-3807	(N/A)	17.15	J-1198
4945	J-2610	Forest	TRUE	1.00	3401.07	1.08	3401.15	20.00	24.15	20.00	20.00	J-90	(N/A)	16.78	J-1198
64	J-24	Forest	TRUE	1.00	3401.07	1.68	3401.75	20.00	25.83	20.00	20.00	J-90	(N/A)	16.78	J-1198
238	J-115	Forest	TRUE	1.00	3405.51	1.08	3405.59	20.00	50.63	20.00	20.00	J-2919	(N/A)	16.93	J-1198
237	J-114	Forest	TRUE	1.00	3406.22	1.08	3406.30	20.00	50.69	20.00	20.00	J-2919	(N/A)	16.93	J-1198
42	J-10	Forest	TRUE	1.00	3408.52	1.48	3408.99	20.00	24.13	20.00	20.00	J-90	(N/A)	16.78	J-1198
47	J-13	Forest	TRUE	1.00	3408.52	1.68	3409.20	20.00	25.89	20.00	20.00	J-90	(N/A)	16.78	J-1198
41	J-9	Forest	TRUE	1.00	3408.52	1.08	3408.59	20.00	24.09	20.00	20.00	J-90	(N/A)	16.78	J-1198
7080	J-3849	Lakes	TRUE	1.00	3412.55	1.20	3412.75	20.00	20.96	20.00	20.00	J-3848	(N/A)	17.23	J-1198
2252	J-1203	Forest	TRUE	1.00	3413.22	1.68	3413.90	20.00	29.13	20.00	20.00	J-2822	(N/A)	16.80	J-1198
3374	J-1836	Lakes	TRUE	1.00	3417.77	1.55	3418.32	20.00	20.83	20.00	20.03	J-1837	(N/A)	17.23	J-1198
7316	J-3961	Lakes	TRUE	1.00	3419.23	1.20	3419.43	20.00	20.18	20.00	20.04	J-3965	(N/A)	17.23	J-1198
746	J-427	Forest	TRUE	1.00	3421.89	1.08	3421.97	20.00	23.22	20.00	20.00	J-3795	(N/A)	17.15	J-1198
6453	J-3482	Lakes	TRUE	1.00	3422.79	1.37	3423.16	20.00	20.26	20.00	20.04	J-3481	(N/A)	17.23	J-1198
726	J-418	Forest	TRUE	1.00	3427.32	1.08	3427.40	20.00	50.46	20.00	20.00	J-2919	(N/A)	16.93	J-1198
467	J-261	Forest	TRUE	1.00	3430.74	2.48	3432.22	20.00	43.43	20.00	20.00	J-2919	(N/A)	16.90	J-1198
468	J-262	Forest	TRUE	1.00	3433.55	1.08	3433.63	20.00	43.30	20.00	20.00	J-2919	(N/A)	16.90	J-1198
5953	J-3187	Forest	TRUE	1.00	3433.55	1.48	3434.03	20.00	40.40	20.00	20.00	J-2919	(N/A)	16.90	J-1198
4016	J-2170	Forest	TRUE	1.00	3433.65	2.48	3435.13	20.00	29.39	20.00	20.00	J-2919	(N/A)	16.90	J-1198
1232	J-645	Lakes	TRUE	1.00	3434.36	1.20	3434.56	20.00	20.00	20.00	20.34	J-3163	(N/A)	17.23	J-1198
1231	J-644	Lakes	TRUE	1.00	3441.19	1.20	3441.39	20.00	31.42	20.00	20.00	J-3163	(N/A)	17.23	J-1198
5288	J-2806	Lakes	TRUE	1.00	3441.19	1.20	3441.39	20.00	29.31	20.00	20.00	J-3163	(N/A)	17.23	J-1198
1216	J-637	Lakes	TRUE	1.00	3441.19	1.29	3441.47	20.00	20.70	20.00	20.00	J-3163	(N/A)	17.23	J-1198
7158	J-3892	Forest	TRUE	1.00	3445.28	1.48	3445.76	20.00	28.76	20.00	20.00	J-1503	(N/A)	16.79	J-1198
7157	J-3891	Forest	TRUE	1.00	3445.28	1.28	3445.56	20.00	29.19	20.00	20.00	J-1503	(N/A)	16.79	J-1198
1276	J-662	Forest	TRUE	1.00	3446.61	1.28	3446.89	20.00	42.93	20.00	20.00	J-3904	(N/A)	16.20	J-1198
5468	J-2911	Forest	TRUE	1.00	3446.61	1.08	3446.69	20.00	40.59	20.00	20.00	J-3904	(N/A)	16.20	J-1198
758	J-433	Forest	TRUE	1.00	3448.61	1.88	3449.49	20.00	28.81	20.00	20.00	J-2145	(N/A)	17.17	J-1198
4500	J-2357	Forest	TRUE	1.00	3449.57	1.48	3450.04	20.00	29.28	20.00	20.00	J-1503	(N/A)	16.78	J-1198
4501	J-2358	Forest	TRUE	1.00	3449.57	2.28	3450.85	20.00	28.18	20.00	20.00	J-1503	(N/A)	16.78	J-1198
4766	J-2508	Forest	TRUE	1.00	3450.23	1.88	3451.11	20.00	26.22	20.00	20.00	J-2822	(N/A)	16.80	J-1198
4765	J-2507	Forest	TRUE	1.00	3450.23	1.48	3450.71	20.00	24.84	20.00	20.00	J-2822	(N/A)	16.80	J-1198
228	J-108	Forest	TRUE	1.00	3450.89	1.08	3450.97	20.00	40.55	20.00	20.00	J-2919	(N/A)	16.89	J-1198
4802	J-2528	Forest	TRUE	1.00	3450.90	1.08	3450.97	20.00	38.62	20.00	20.00	J-2919	(N/A)	16.89	J-1198
229	J-109	Forest	TRUE	1.00	3450.90	1.08	3450.98	20.00	40.60	20.00	20.00	J-2919	(N/A)	16.89	J-1198
1039	J-564	Forest	TRUE	1.00	3450.90	1.08	3450.98	20.00	21.62	20.00	20.00	J-2919	(N/A)	16.89	J-1198
470	J-263	Forest	TRUE	1.00	3453.84	1.68	3454.52	20.00	39.25	20.00	20.00	J-2919	(N/A)	16.89	J-1198
3695	J-2016	Lakes	TRUE	1.00	3460.81	1.37	3461.19	20.00	20.00	20.00	20.14	J-4042	(N/A)	17.23	J-1198
1194	J-625	Lakes	TRUE	1.00	3478.94	1.29	3479.23	20.00	29.95	20.00	20.00	J-2323	(N/A)	17.23	J-1198
6733	J-3647	Lakes	TRUE	1.00	3478.95	1.20	3479.14	20.00	25.79	20.00	20.00	J-2323	(N/A)	17.23	J-1198
344	J-183	Forest	TRUE	1.00	3478.97	1.08	3479.05	20.00	35.49	20.00	20.00	J-2919	(N/A)	17.15	J-1198
343	J-182	Forest	TRUE	1.00	3479.93	1.08	3480.01	20.00	35.45	20.00	20.00	J-2919	(N/A)	17.15	J-1198
747	J-428	Forest	TRUE	1.00	3484.45	1.28	3484.73	20.00	25.88	20.00	20.00	J-2919	(N/A)	17.15	J-1198
3028	J-1628	Lakes	TRUE	1.00	3486.39	1.20	3486.59	20.00	20.00	20.00	20.33	J-1629	(N/A)	17.23	J-1198
3694	J-2015	Lakes	TRUE	1.00	3487.82	1.98	3488.80	20.00	20.00	20.00	27.09	J-1968	(N/A)	17.23	J-1198
6048	J-3241	Forest	TRUE	1.00	3488.82	2.28	3490.20	20.00	20.20	20.00	20.01	J-3240	(N/A)	16.88	J-1198
3029	J-1629	Lakes	TRUE	1.00	3492.87	1.20	3493.07	20.00	20.00	20.00	20.00	J-1628	(N/A)	17.23	J-1198
7629	J-4071	Lakes	TRUE	1.00	3493.08	1.20	3493.28	20.00	27.99	20.00	20.02	J-4062	(N/A)	17.23	J-1198
1102	J-591	Lakes	TRUE	1.00	3494.47	1.20	3494.67	20.00	25.17	20.00	20.00	J-1575	(N/A)	17.23	J-1198
5986	J-3205	Lakes	TRUE	1.00	3494.47	1.20	3494.67	20.00	21.61	20.00	20.00	J-1575	(N/A)	17.23	J-1198
398	J-218	Forest	TRUE	1.00	3495.48	1.48	3495.96	20.00	32.75	20.00	20.00	J-2919	(N/A)	17.15	J-1198
397	J-217	Forest	TRUE	1.00	3495.49	1.28	3495.77	20.00	33.16	20.00	20.00	J-2919	(N/A)	17.15	J-1198
6937	J-3768	Forest	TRUE	1.00	3495.66	1.48	3496.14	20.00	67.47	20.00	20.01	J-3807	(N/A)	17.15	J-1198
1281	J-665	Forest	TRUE	1.00	3495.66	1.48	3496.14	20.00	72.85	20.00	20.01	J-3807	(N/A)	17.15	J-1198
53	J-17	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	42.00	20.00	23.86	J-1197	(N/A)	16.78	J-1198
54	J-18	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	41.90	20.00	23.86	J-1197	(N/A)	16.78	J-1198
61	J-22	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	37.28	20.00	23.86	J-1197	(N/A)	16.78	J-1198
62	J-23	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	37.50	20.00	23.86	J-1197	(N/A)	16.78	J-1198
69	J-27	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	46.97	20.00	23.84	J-1197	(N/A)	16.77	J-1198
70	J-28	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	45.79	20.00	23.84	J-1197	(N/A)	16.77	J-1198
92	J-42	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	39.75	20.00	23.25	J-1197	(N/A)	16.17	J-1198
93	J-43	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	38.02	20.00	23.25	J-1197	(N/A)	16.17	J-1198
100	J-47	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	46.81	20.00	23.25	J-1197	(N/A)	16.17	J-1198
101	J-48	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	42.67	20.00	23.25	J-1197	(N/A)	16.17	J-1198
109	J-52	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	51.81	20.00	23.25	J-1197	(N/A)	16.17	J-1198
113	J-54	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	27.99	20.00	23.86	J-1197	(N/A)	16.79	J-1198
114	J-55	Forest	TRUE	1.00	3500.00	2.68	3501.68	20.00	29.58	20.00	23.87	J-1197	(N/A)	16.79	J-1198
133	J-65	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	44.32	20.00	23.55	J-1197	(N/A)	16.47	J-1198
134	J-66	Forest	TRUE	1.00	3500.00	1.08									

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
225	J-106	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	61.34	20.00	23.83	J-1197	(N/A)	16.75	J-1198
226	J-107	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	61.09	20.00	23.83	J-1197	(N/A)	16.75	J-1198
243	J-118	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	100.19	20.00	32.62	J-2323	(N/A)	17.23	J-1198
244	J-119	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	100.01	20.00	32.62	J-2323	(N/A)	17.23	J-1198
252	J-124	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	24.38	20.00	23.00	J-103	(N/A)	17.18	J-1198
253	J-125	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	24.20	20.00	23.00	J-103	(N/A)	17.18	J-1198
255	J-126	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	74.16	20.00	23.87	J-1197	(N/A)	16.79	J-1198
256	J-127	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	74.31	20.00	23.87	J-1197	(N/A)	16.79	J-1198
264	J-132	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	57.61	20.00	24.30	J-1197	(N/A)	17.22	J-1198
265	J-133	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	57.49	20.00	24.30	J-1197	(N/A)	17.22	J-1198
272	J-137	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	60.26	20.00	32.62	J-2323	(N/A)	17.23	J-1198
273	J-138	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	60.28	20.00	32.62	J-2323	(N/A)	17.23	J-1198
304	J-157	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	40.14	20.00	23.90	J-1197	(N/A)	16.82	J-1198
305	J-158	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	39.94	20.00	23.90	J-1197	(N/A)	16.82	J-1198
309	J-160	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	79.74	20.00	32.62	J-2323	(N/A)	17.23	J-1198
310	J-161	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	79.36	20.00	32.62	J-2323	(N/A)	17.23	J-1198
315	J-164	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	62.22	20.00	23.87	J-1197	(N/A)	16.79	J-1198
316	J-165	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	62.24	20.00	23.87	J-1197	(N/A)	16.79	J-1198
332	J-175	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.38	20.00	24.06	J-1197	(N/A)	16.99	J-1198
333	J-176	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.45	20.00	24.06	J-1197	(N/A)	16.99	J-1198
352	J-188	Stewartsville	TRUE	1.00	3500.00	1.11	3500.11	20.00	53.32	20.00	21.37	J-676	(N/A)	17.23	J-1198
353	J-189	Stewartsville	TRUE	1.00	3500.00	1.40	3500.40	20.00	53.15	20.00	21.24	J-676	(N/A)	17.23	J-1198
358	J-192	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	39.46	20.00	20.77	J-2919	(N/A)	17.15	J-1198
359	J-193	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	39.39	20.00	20.76	J-2919	(N/A)	17.15	J-1198
361	J-194	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.34	20.00	24.07	J-1197	(N/A)	16.99	J-1198
363	J-195	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	62.74	20.00	24.30	J-1197	(N/A)	17.22	J-1198
364	J-196	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	62.90	20.00	24.30	J-1197	(N/A)	17.22	J-1198
369	J-199	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	83.54	20.00	23.87	J-1197	(N/A)	16.79	J-1198
370	J-200	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	83.63	20.00	23.87	J-1197	(N/A)	16.79	J-1198
372	J-201	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	69.25	20.00	32.62	J-2323	(N/A)	17.23	J-1198
373	J-202	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	69.32	20.00	32.62	J-2323	(N/A)	17.23	J-1198
403	J-221	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	25.29	20.00	23.58	J-103	(N/A)	17.17	J-1198
404	J-222	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	25.40	20.00	23.58	J-103	(N/A)	17.17	J-1198
406	J-223	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.22	20.00	24.30	J-1197	(N/A)	17.22	J-1198
407	J-224	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.06	20.00	24.30	J-1197	(N/A)	17.22	J-1198
409	J-225	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	27.57	20.00	21.50	J-2919	(N/A)	17.16	J-1198
410	J-226	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	27.22	20.00	21.51	J-2919	(N/A)	17.16	J-1198
415	J-229	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	45.50	20.00	20.44	J-2919	(N/A)	16.88	J-1198
416	J-230	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	44.82	20.00	20.42	J-2919	(N/A)	16.88	J-1198
418	J-231	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	35.80	20.00	31.78	J-3851	(N/A)	17.23	J-1198
420	J-232	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	63.19	20.00	23.87	J-1197	(N/A)	16.80	J-1198
421	J-233	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	63.07	20.00	23.87	J-1197	(N/A)	16.80	J-1198
429	J-238	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	64.92	20.00	24.26	J-1197	(N/A)	17.18	J-1198
430	J-239	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	64.90	20.00	24.26	J-1197	(N/A)	17.18	J-1198
434	J-241	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	64.19	20.00	23.87	J-1197	(N/A)	16.79	J-1198
435	J-242	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	64.64	20.00	23.87	J-1197	(N/A)	16.79	J-1198
437	J-243	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	25.18	20.00	23.59	J-103	(N/A)	17.17	J-1198
452	J-252	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	54.12	20.00	23.98	J-1197	(N/A)	16.91	J-1198
453	J-253	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	53.34	20.00	23.98	J-1197	(N/A)	16.90	J-1198
455	J-254	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.18	20.00	22.48	J-2919	(N/A)	16.87	J-1198
456	J-255	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	49.05	20.00	22.53	J-2919	(N/A)	16.87	J-1198
458	J-256	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	62.17	20.00	32.62	J-2323	(N/A)	17.23	J-1198
459	J-257	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	60.72	20.00	32.62	J-2323	(N/A)	17.23	J-1198
480	J-269	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	38.45	20.00	20.25	J-2919	(N/A)	16.88	J-1198
481	J-270	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	37.70	20.00	20.25	J-2919	(N/A)	16.88	J-1198
483	J-271	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	65.61	20.00	23.89	J-1197	(N/A)	16.81	J-1198
486	J-272	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	62.94	20.00	23.86	J-1197	(N/A)	16.78	J-1198
487	J-273	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	62.27	20.00	23.86	J-1197	(N/A)	16.78	J-1198
492	J-276	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	56.67	20.00	23.90	J-1197	(N/A)	16.82	J-1198
493	J-277	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	56.15	20.00	23.90	J-1197	(N/A)	16.82	J-1198
498	J-280	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	63.04	20.00	24.30	J-1197	(N/A)	17.22	J-1198
500	J-281	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	63.28	20.00	23.86	J-1197	(N/A)	16.78	J-1198
505	J-284	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.94	20.00	23.87	J-1197	(N/A)	16.79	J-1198
506	J-285	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.18	20.00	23.87	J-1197	(N/A)	16.79	J-1198
511	J-288	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	61.79	20.00	32.62	J-2323	(N/A)	17.23	J-1198
512	J-289	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	58.91	20.00	32.62	J-2323	(N/A)	17.23	J-1198
529	J-300	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	38.54	20.00	20.76	J-2919	(N/A)	17.15	J-1198
542	J-308	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	50.06	20.00	23.25	J-1197	(N/A)	16.17	J-1198
543	J-309	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	52.75	20.00	23.25	J-1197	(N/A)	16.17	J-1198
547	J-311	Forest	TRUE	1.00	3500.00	2.68	3501.68	20.00	27.03	20.00	23.38	J-103	(N/A)	17.18	J-1198
548	J-312	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.38	20.00	23.36	J-103	(N/A)	17.18	J-1198
552	J-314	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	69.13	20.00	23.82	J-1197	(N/A)	16.74	J-1198
553	J-315	Forest	TRUE	1.00	3500.00	2.88	3501.88	20.00	67.68	20.00	23.82	J-1197	(N/A)	16.74	J-1198
566	J-323	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	58.19	20.00	23.89	J-1197	(N/A)	16.82	J-1198
567	J-324	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	56.77	20.00	23.89	J-1197	(N/A)	16.82	J-1198
569	J-325	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	44.70	20.00	23.96	J-1197	(N/A)	16.88	J-1198
570	J-326	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	46.87	20.00	23.96	J-1197	(N/A)	16.88	J-1198
572	J-327	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	71.07	20.00	32.62	J-2323	(N/A)	17.23	J-1198
573	J-328	Lakes	TRUE	1.00	3500.00	1.55	3500.54	20.00	67.93	20.00	32.62	J-2323	(N/A)	17.23	J-1198
578	J-331	Forest	TRUE	1.00	3500.00	3.29	3502.29	20.00	45.37	20.00</					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
646	J-372	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	29.10	20.00	23.17	J-103	(N/A)	17.18	J-1198
650	J-374	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	87.43	20.00	23.82	J-1197	(N/A)	16.75	J-1198
651	J-375	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	90.58	20.00	23.82	J-1197	(N/A)	16.74	J-1198
653	J-376	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	64.25	20.00	23.82	J-1197	(N/A)	16.74	J-1198
654	J-377	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	62.51	20.00	23.82	J-1197	(N/A)	16.74	J-1198
664	J-383	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	104.09	20.00	32.62	J-2323	(N/A)	17.23	J-1198
666	J-384	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	66.69	20.00	23.63	J-1197	(N/A)	16.55	J-1198
667	J-385	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	63.93	20.00	23.62	J-1197	(N/A)	16.54	J-1198
677	J-391	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	53.76	20.00	22.65	J-2919	(N/A)	17.16	J-1198
693	J-399	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	71.32	20.00	32.62	J-2323	(N/A)	17.23	J-1198
697	J-401	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	64.49	20.00	23.80	J-1197	(N/A)	16.72	J-1198
698	J-402	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	65.41	20.00	23.80	J-1197	(N/A)	16.72	J-1198
708	J-407	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	56.90	20.00	23.84	J-1197	(N/A)	16.76	J-1198
721	J-415	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	55.86	20.00	23.89	J-1197	(N/A)	16.82	J-1198
722	J-416	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.85	20.00	23.90	J-1197	(N/A)	16.82	J-1198
737	J-422	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	87.75	20.00	23.87	J-1197	(N/A)	16.79	J-1198
738	J-423	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	93.20	20.00	23.87	J-1197	(N/A)	16.79	J-1198
759	J-434	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	28.06	20.00	21.23	J-2145	(N/A)	17.17	J-1198
768	J-438	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	56.14	20.00	23.90	J-1197	(N/A)	16.82	J-1198
770	J-439	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	112.27	20.00	32.62	J-2323	(N/A)	17.23	J-1198
780	J-444	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.62	20.00	23.90	J-1197	(N/A)	16.82	J-1198
781	J-445	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	58.81	20.00	23.90	J-1197	(N/A)	16.82	J-1198
783	J-446	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	78.51	20.00	23.88	J-1197	(N/A)	16.80	J-1198
785	J-447	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	67.78	20.00	23.89	J-1197	(N/A)	16.81	J-1198
787	J-448	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	57.97	20.00	23.93	J-1197	(N/A)	16.85	J-1198
788	J-449	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	60.29	20.00	23.92	J-1197	(N/A)	16.84	J-1198
790	J-450	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	81.05	20.00	23.87	J-1197	(N/A)	16.79	J-1198
792	J-451	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	77.57	20.00	23.89	J-1197	(N/A)	16.81	J-1198
796	J-452	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	54.84	20.00	23.94	J-1197	(N/A)	16.86	J-1198
806	J-457	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	64.85	20.00	23.87	J-1197	(N/A)	16.79	J-1198
820	J-464	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	62.17	20.00	23.88	J-1197	(N/A)	16.80	J-1198
822	J-465	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	74.17	20.00	23.88	J-1197	(N/A)	16.80	J-1198
823	J-466	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	80.30	20.00	23.88	J-1197	(N/A)	16.81	J-1198
825	J-467	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	62.48	20.00	23.86	J-1197	(N/A)	16.78	J-1198
831	J-470	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.58	20.00	24.26	J-1197	(N/A)	17.18	J-1198
832	J-471	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	60.32	20.00	24.26	J-1197	(N/A)	17.18	J-1198
836	J-472	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	83.52	20.00	23.89	J-1197	(N/A)	16.81	J-1198
838	J-473	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	65.85	20.00	23.87	J-1197	(N/A)	16.79	J-1198
844	J-476	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	46.12	20.00	23.97	J-1197	(N/A)	16.89	J-1198
848	J-478	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	33.12	20.00	24.05	J-1197	(N/A)	16.97	J-1198
860	J-484	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	56.14	20.00	23.85	J-1197	(N/A)	16.77	J-1198
861	J-485	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	57.67	20.00	23.85	J-1197	(N/A)	16.77	J-1198
864	J-486	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	56.27	20.00	23.84	J-1197	(N/A)	16.76	J-1198
866	J-487	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	57.36	20.00	23.90	J-1197	(N/A)	16.82	J-1198
870	J-489	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	53.84	20.00	32.62	J-2323	(N/A)	17.23	J-1198
889	J-499	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	80.46	20.00	23.87	J-1197	(N/A)	16.79	J-1198
901	J-504	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	79.38	20.00	23.84	J-1197	(N/A)	16.76	J-1198
919	J-510	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	60.26	20.00	24.30	J-1197	(N/A)	17.22	J-1198
925	J-512	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	34.79	20.00	31.78	J-3851	(N/A)	17.23	J-1198
933	J-515	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	79.31	20.00	23.73	J-1197	(N/A)	16.65	J-1198
934	J-516	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	73.71	20.00	23.71	J-1197	(N/A)	16.63	J-1198
936	J-517	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	66.51	20.00	23.87	J-1197	(N/A)	16.79	J-1198
943	J-520	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	43.64	20.00	32.62	J-2323	(N/A)	17.23	J-1198
945	J-521	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	27.00	20.00	21.09	J-2919	(N/A)	17.15	J-1198
946	J-522	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	33.52	20.00	21.19	J-2919	(N/A)	17.15	J-1198
950	J-524	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	44.42	20.00	23.90	J-1197	(N/A)	16.82	J-1198
956	J-527	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	73.00	20.00	23.66	J-1197	(N/A)	16.58	J-1198
964	J-530	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	28.11	20.00	27.84	J-3163	(N/A)	17.23	J-1198
971	J-533	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	37.36	20.00	24.04	J-1197	(N/A)	16.96	J-1198
972	J-534	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	40.71	20.00	24.02	J-1197	(N/A)	16.94	J-1198
974	J-535	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	78.28	20.00	32.62	J-2323	(N/A)	17.23	J-1198
980	J-537	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	74.36	20.00	23.81	J-1197	(N/A)	16.73	J-1198
991	J-543	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	70.18	20.00	23.85	J-1197	(N/A)	16.78	J-1198
1007	J-550	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	83.69	20.00	23.74	J-1197	(N/A)	16.66	J-1198
1008	J-551	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	74.41	20.00	23.75	J-1197	(N/A)	16.67	J-1198
1010	J-552	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	67.84	20.00	23.68	J-1197	(N/A)	16.60	J-1198
1013	J-553	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	89.36	20.00	23.75	J-1197	(N/A)	16.67	J-1198
1024	J-557	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	59.49	20.00	23.88	J-1197	(N/A)	16.80	J-1198
1035	J-562	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	48.85	20.00	24.00	J-1197	(N/A)	16.93	J-1198
1043	J-566	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	64.72	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1044	J-567	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	74.46	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1048	J-569	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	59.71	20.00	24.26	J-1197	(N/A)	17.18	J-1198
1069	J-577	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	72.85	20.00	24.25	J-1197	(N/A)	17.17	J-1198
1079	J-580	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	66.47	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1080	J-581	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	68.49	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1082	J-582	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	103.64	20.00	23.77	J-1197	(N/A)	16.69	J-1198
1089	J-585	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	123.77	20.00	23.80	J-1197	(N/A)	16.72	J-1198
1093	J-586	Forest	TRUE	1.00	3500.00	8.00	3507.00	20.00	39.15	20.00	23.90	J-1197	(N/A)	16.82	J-1198
1100	J-590	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	32.17	20.00	20.92	J-2919	(N/A)	17.15	J-1198
1116	J-595	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.							

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1297	J-674	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	46.51	20.00	22.09	J-2919	(N/A)	17.16	J-1198
1307	J-677	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	58.97	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1325	J-681	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	49.04	20.00	23.89	J-1197	(N/A)	16.81	J-1198
1340	J-685	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	79.25	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1358	J-689	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	65.40	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1396	J-695	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.89	20.00	23.25	J-1197	(N/A)	16.17	J-1198
1397	J-696	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.92	20.00	23.25	J-1197	(N/A)	16.17	J-1198
1399	J-697	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	51.76	20.00	23.25	J-1197	(N/A)	16.17	J-1198
1406	J-701	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.05	20.00	22.09	J-2919	(N/A)	17.16	J-1198
1410	J-703	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	83.94	20.00	23.74	J-1197	(N/A)	16.66	J-1198
1412	J-704	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	61.46	20.00	23.25	J-1197	(N/A)	16.17	J-1198
1430	J-715	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	45.78	20.00	22.09	J-2919	(N/A)	17.16	J-1198
1449	J-726	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	78.75	20.00	20.82	J-2919	(N/A)	17.15	J-1198
1450	J-727	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	78.95	20.00	20.78	J-2919	(N/A)	17.15	J-1198
1455	J-729	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	54.09	20.00	22.59	J-2919	(N/A)	17.16	J-1198
1505	J-750	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	38.59	20.00	22.37	J-2919	(N/A)	17.16	J-1198
1506	J-751	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	43.45	20.00	22.43	J-2919	(N/A)	17.16	J-1198
1509	J-752	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	51.62	20.00	22.33	J-2919	(N/A)	17.16	J-1198
1510	J-753	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	57.69	20.00	22.14	J-2919	(N/A)	17.16	J-1198
1512	J-754	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	73.23	20.00	21.80	J-2919	(N/A)	17.16	J-1198
1513	J-755	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	84.10	20.00	21.57	J-2919	(N/A)	17.16	J-1198
1518	J-756	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	44.17	20.00	20.40	J-2919	(N/A)	17.15	J-1198
1520	J-757	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	87.38	20.00	21.13	J-2919	(N/A)	17.15	J-1198
1522	J-758	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	35.03	20.00	22.23	J-2919	(N/A)	17.16	J-1198
1523	J-759	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	34.60	20.00	22.30	J-2919	(N/A)	17.16	J-1198
1526	J-760	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	35.90	20.00	22.16	J-2919	(N/A)	17.16	J-1198
1532	J-761	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	49.12	20.00	23.25	J-1197	(N/A)	16.17	J-1198
1535	J-762	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	65.89	20.00	23.25	J-1197	(N/A)	16.17	J-1198
1538	J-763	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	79.19	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1542	J-765	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	76.43	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1544	J-766	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	72.99	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1545	J-767	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	70.72	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1547	J-768	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	75.83	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1549	J-769	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	99.82	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1550	J-770	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	95.02	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1552	J-771	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	66.76	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1554	J-772	Lakes	TRUE	1.00	3500.00	5.18	3504.18	20.00	71.58	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1556	J-773	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	74.48	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1558	J-774	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	76.41	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1560	J-775	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	80.57	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1562	J-776	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	75.96	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1565	J-777	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	78.86	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1570	J-778	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	84.19	20.00	32.62	J-2323	(N/A)	17.23	J-1198
1889	J-982	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	29.10	20.00	23.83	J-1197	(N/A)	16.75	J-1198
1935	J-1012	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	46.01	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2038	J-1078	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	117.34	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2039	J-1079	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	117.51	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2041	J-1080	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	118.03	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2043	J-1081	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	90.75	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2044	J-1082	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	90.87	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2046	J-1083	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	117.97	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2048	J-1084	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	118.37	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2050	J-1085	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	116.71	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2052	J-1086	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	69.44	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2053	J-1087	Lakes	TRUE	1.00	3500.00	2.09	3501.09	20.00	68.04	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2055	J-1088	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	50.12	20.00	23.16	J-1197	(N/A)	16.09	J-1198
2059	J-1089	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	93.38	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2061	J-1090	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	101.43	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2062	J-1091	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	102.04	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2064	J-1092	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	45.77	20.00	23.22	J-1197	(N/A)	16.14	J-1198
2066	J-1093	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	52.92	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2068	J-1094	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	82.24	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2069	J-1095	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	83.66	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2072	J-1096	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	57.57	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2074	J-1097	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	100.98	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2078	J-1098	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	74.58	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2081	J-1099	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	85.41	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2123	J-1124	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	28.55	20.00	22.73	J-2919	(N/A)	16.87	J-1198
2134	J-1131	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	69.97	20.00	32.62	J-2323	(N/A)	17.23	J-1198
2247	J-1200	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	27.55	20.00	23.48	J-1519	(N/A)	17.17	J-1198
2365	J-1268	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	106.46	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2366	J-1269	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	106.46	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2368	J-1270	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	164.25	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2369	J-1271	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	160.26	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2371	J-1272	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	74.88	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2372	J-1273	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	71.95	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2374	J-1274	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	48.65	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2375	J-1275	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	52.69	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2378	J-1276	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	92.96	20.00	23.25	J-1197			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2706	J-1460	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	68.63	20.00	23.82	J-1197	(N/A)	16.75	J-1198
2714	J-1465	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	105.68	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2774	J-1500	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	86.54	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2902	J-1572	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	80.21	20.00	23.25	J-1197	(N/A)	16.17	J-1198
2928	J-1584	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	41.47	20.00	23.83	J-1197	(N/A)	16.75	J-1198
2975	J-1604	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	26.94	20.00	23.81	J-1197	(N/A)	16.73	J-1198
3034	J-1632	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	104.81	20.00	23.25	J-1197	(N/A)	16.17	J-1198
3047	J-1640	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	27.76	20.00	27.80	J-2470	(N/A)	17.23	J-1198
3048	J-1641	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	26.50	20.00	27.76	J-1640	(N/A)	17.23	J-1198
3055	J-1645	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	63.02	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3056	J-1646	Lakes	TRUE	1.00	3500.00	1.46	3500.46	20.00	61.39	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3070	J-1655	Forest	TRUE	1.00	3500.00	8.88	3507.88	20.00	31.25	20.00	23.84	J-1197	(N/A)	16.76	J-1198
3071	J-1656	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	32.87	20.00	23.84	J-1197	(N/A)	16.76	J-1198
3150	J-1705	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	81.19	20.00	23.25	J-1197	(N/A)	16.17	J-1198
3152	J-1706	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	50.24	20.00	23.98	J-1197	(N/A)	16.90	J-1198
3159	J-1710	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	85.43	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3160	J-1711	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	81.79	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3213	J-1742	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	23.31	20.00	27.68	J-3477	(N/A)	17.23	J-1198
3214	J-1743	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	27.70	20.00	27.55	J-1742	(N/A)	17.23	J-1198
3221	J-1747	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	57.89	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3226	J-1750	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	39.19	20.00	23.49	J-2919	(N/A)	17.16	J-1198
3227	J-1751	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	34.65	20.00	23.49	J-2919	(N/A)	17.16	J-1198
3281	J-1785	Lakes	TRUE	1.00	3500.00	1.63	3500.63	20.00	25.65	20.00	25.52	J-1628	(N/A)	17.23	J-1198
3307	J-1799	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	34.76	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3382	J-1840	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	50.94	20.00	23.87	J-1197	(N/A)	16.79	J-1198
3385	J-1841	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	54.81	20.00	23.87	J-1197	(N/A)	16.80	J-1198
3410	J-1855	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	60.02	20.00	23.81	J-1197	(N/A)	16.73	J-1198
3426	J-1864	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	59.32	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3427	J-1865	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	43.67	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3460	J-1884	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	32.72	20.00	23.90	J-1197	(N/A)	16.82	J-1198
3472	J-1891	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	40.57	20.00	23.87	J-1197	(N/A)	16.79	J-1198
3473	J-1892	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	55.65	20.00	23.87	J-1197	(N/A)	16.79	J-1198
3504	J-1910	Forest	TRUE	1.00	3500.00	1.28	3500.08	20.00	36.80	20.00	20.53	J-2919	(N/A)	16.90	J-1198
3563	J-1943	Lakes	TRUE	1.00	3500.00	2.81	3501.81	20.00	40.44	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3571	J-1947	Lakes	TRUE	1.00	3500.00	2.24	3501.24	20.00	68.10	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3590	J-1958	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	72.72	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3591	J-1959	Lakes	TRUE	1.00	3500.00	3.97	3502.96	20.00	28.53	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3913	J-2124	Lakes	TRUE	1.00	3500.00	1.72	3500.72	20.00	39.55	20.00	32.62	J-2323	(N/A)	17.23	J-1198
3943	J-2138	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	23.85	20.00	21.81	J-2116	(N/A)	16.17	J-1198
3996	J-2161	Forest	TRUE	1.00	3500.00	3.09	3502.08	20.00	32.72	20.00	23.82	J-1197	(N/A)	16.74	J-1198
4163	J-2235	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	44.82	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4256	J-2266	Forest	TRUE	1.00	3500.00	3.29	3502.29	20.00	42.19	20.00	23.83	J-1197	(N/A)	16.75	J-1198
4451	J-2329	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	26.90	20.00	21.51	J-2919	(N/A)	17.16	J-1198
4464	J-2337	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	79.52	20.00	23.25	J-1197	(N/A)	16.17	J-1198
4511	J-2364	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	25.18	20.00	23.36	J-103	(N/A)	17.18	J-1198
4522	J-2370	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	85.43	20.00	23.25	J-1197	(N/A)	16.17	J-1198
4524	J-2371	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	34.92	20.00	22.73	J-2919	(N/A)	16.87	J-1198
4525	J-2372	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	33.71	20.00	22.73	J-2919	(N/A)	16.87	J-1198
4527	J-2373	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	21.80	20.00	22.96	J-103	(N/A)	17.18	J-1198
4534	J-2377	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	50.61	20.00	23.25	J-1197	(N/A)	16.17	J-1198
4568	J-2397	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	45.05	20.00	23.97	J-1197	(N/A)	16.89	J-1198
4584	J-2407	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	30.91	20.00	31.59	J-78	(N/A)	17.23	J-1198
4588	J-2409	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	33.67	20.00	21.52	J-2919	(N/A)	16.89	J-1198
4589	J-2410	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	32.43	20.00	21.52	J-2919	(N/A)	16.89	J-1198
4591	J-2411	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	64.36	20.00	23.89	J-1197	(N/A)	16.81	J-1198
4605	J-2419	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	58.90	20.00	23.92	J-1197	(N/A)	16.84	J-1198
4612	J-2423	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	57.74	20.00	32.62	J-2323	(N/A)	17.23	J-1198
4614	J-2424	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	29.48	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4615	J-2425	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	27.88	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4636	J-2437	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	111.07	20.00	32.62	J-2323	(N/A)	17.23	J-1198
4660	J-2449	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	63.49	20.00	23.85	J-1197	(N/A)	16.78	J-1198
4686	J-2464	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	59.30	20.00	23.83	J-1197	(N/A)	16.75	J-1198
4688	J-2465	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	58.55	20.00	23.81	J-1197	(N/A)	16.73	J-1198
4698	J-2470	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	26.29	20.00	27.76	J-1640	(N/A)	17.23	J-1198
4700	J-2471	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	72.65	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4704	J-2473	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	64.50	20.00	23.91	J-1197	(N/A)	16.83	J-1198
4725	J-2485	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	79.32	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4726	J-2486	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	78.00	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4731	J-2489	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	23.83	20.00	23.58	J-103	(N/A)	17.17	J-1198
4740	J-2494	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	53.30	20.00	23.94	J-1197	(N/A)	16.86	J-1198
4763	J-2506	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	43.71	20.00	20.42	J-2919	(N/A)	16.88	J-1198
4773	J-2512	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.47	20.00	21.23	J-2145	(N/A)	17.17	J-1198
4786	J-2519	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	55.27	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4787	J-2520	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	53.59	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4789	J-2521	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	25.14	20.00	23.70	J-103	(N/A)	17.17	J-1198
4790	J-2522	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	27.39	20.00	23.70	J-103	(N/A)	17.17	J-1198
4792	J-2523	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	62.39	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4796	J-2525	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	78.66	20.00	23.87	J-1197	(N/A)	16.79	J-1198
4804	J-2529	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	45.48	20					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5027	J-2658	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	77.56	20.00	23.84	J-1197	(N/A)	16.76	J-1198
5067	J-2682	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	87.16	20.00	23.75	J-1197	(N/A)	16.67	J-1198
5072	J-2685	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	51.96	20.00	23.98	J-1197	(N/A)	16.91	J-1198
5094	J-2696	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	62.36	20.00	20.75	J-2919	(N/A)	17.15	J-1198
5095	J-2697	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	59.92	20.00	20.75	J-2919	(N/A)	17.15	J-1198
5110	J-2705	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	53.37	20.00	23.14	J-2919	(N/A)	17.16	J-1198
5118	J-2709	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	65.49	20.00	23.68	J-1197	(N/A)	16.60	J-1198
5123	J-2712	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	93.17	20.00	23.25	J-1197	(N/A)	16.17	J-1198
5124	J-2713	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	95.71	20.00	23.25	J-1197	(N/A)	16.17	J-1198
5126	J-2714	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	77.18	20.00	23.73	J-1197	(N/A)	16.65	J-1198
5128	J-2715	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	70.70	20.00	23.66	J-1197	(N/A)	16.58	J-1198
5134	J-2718	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	88.33	20.00	23.82	J-1197	(N/A)	16.74	J-1198
5162	J-2734	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	38.24	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5163	J-2735	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	36.20	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5174	J-2741	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	65.99	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5176	J-2742	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	121.66	20.00	23.80	J-1197	(N/A)	16.72	J-1198
5197	J-2753	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	38.32	20.00	24.02	J-1197	(N/A)	16.94	J-1198
5199	J-2754	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	66.75	20.00	23.25	J-1197	(N/A)	16.17	J-1198
5221	J-2767	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	77.59	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5245	J-2782	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	52.44	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5247	J-2783	Forest	TRUE	1.00	3500.00	2.48	3501.48	20.00	33.58	20.00	23.53	J-2822	(N/A)	16.79	J-1198
5248	J-2784	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	31.90	20.00	23.53	J-2822	(N/A)	16.79	J-1198
5284	J-2804	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	101.98	20.00	23.77	J-1197	(N/A)	16.69	J-1198
5297	J-2811	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	27.64	20.00	23.87	J-1197	(N/A)	16.79	J-1198
5304	J-2815	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	24.51	20.00	23.86	J-1197	(N/A)	16.78	J-1198
5305	J-2816	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	26.24	20.00	23.86	J-1197	(N/A)	16.78	J-1198
5374	J-2857	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	40.26	20.00	23.25	J-1197	(N/A)	16.17	J-1198
5388	J-2866	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	35.79	20.00	23.25	J-1197	(N/A)	16.17	J-1198
5423	J-2885	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	42.07	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5424	J-2886	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	39.53	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5432	J-2890	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	45.61	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5433	J-2891	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	43.38	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5474	J-2914	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	25.02	20.00	23.82	J-1197	(N/A)	16.74	J-1198
5475	J-2915	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	22.76	20.00	23.82	J-1197	(N/A)	16.74	J-1198
5481	J-2918	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	35.76	20.00	22.99	J-90	(N/A)	16.76	J-1198
5486	J-2921	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	55.36	20.00	23.85	J-1197	(N/A)	16.77	J-1198
5509	J-2933	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	64.18	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5511	J-2934	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	52.94	20.00	20.52	J-2919	(N/A)	17.15	J-1198
5518	J-2938	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	31.57	20.00	21.19	J-2919	(N/A)	17.15	J-1198
5557	J-2960	Forest	TRUE	1.00	3500.00	3.09	3502.08	20.00	26.23	20.00	23.88	J-1197	(N/A)	16.80	J-1198
5558	J-2961	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	23.93	20.00	23.88	J-1197	(N/A)	16.80	J-1198
5577	J-2972	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	37.85	20.00	23.87	J-1197	(N/A)	16.79	J-1198
5593	J-2981	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	53.86	20.00	23.84	J-1197	(N/A)	16.76	J-1198
5595	J-2982	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	65.50	20.00	23.87	J-1197	(N/A)	16.79	J-1198
5596	J-2983	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	64.11	20.00	23.87	J-1197	(N/A)	16.79	J-1198
5604	J-2988	Lakes	TRUE	1.00	3500.00	1.46	3500.46	20.00	112.91	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5615	J-2994	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	53.63	20.00	23.85	J-1197	(N/A)	16.77	J-1198
5629	J-3002	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	49.87	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5630	J-3003	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.35	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5643	J-3010	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	26.69	20.00	27.09	J-4062	(N/A)	17.23	J-1198
5644	J-3011	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	30.00	20.00	27.09	J-4062	(N/A)	17.23	J-1198
5657	J-3019	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	43.32	20.00	23.92	J-1197	(N/A)	16.84	J-1198
5658	J-3020	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	40.79	20.00	23.92	J-1197	(N/A)	16.84	J-1198
5669	J-3026	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	79.81	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5683	J-3034	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	81.12	20.00	23.87	J-1197	(N/A)	16.79	J-1198
5705	J-3047	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	36.62	20.00	20.77	J-2919	(N/A)	17.15	J-1198
5748	J-3072	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	29.67	20.00	23.86	J-1197	(N/A)	16.78	J-1198
5765	J-3082	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	82.96	20.00	21.13	J-2919	(N/A)	17.15	J-1198
5805	J-3105	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	76.38	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5815	J-3110	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	34.85	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5816	J-3111	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	31.83	20.00	23.83	J-1197	(N/A)	16.75	J-1198
5847	J-3128	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	60.35	20.00	24.30	J-1197	(N/A)	17.22	J-1198
5849	J-3129	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	77.59	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5860	J-3135	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	92.05	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5872	J-3142	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	58.15	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5881	J-3147	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	73.83	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5885	J-3149	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	43.91	20.00	22.09	J-2919	(N/A)	17.16	J-1198
5891	J-3152	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	31.46	20.00	22.30	J-2919	(N/A)	17.16	J-1198
5900	J-3157	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	73.70	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5904	J-3159	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	45.51	20.00	23.63	J-1197	(N/A)	16.55	J-1198
5905	J-3160	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	48.93	20.00	23.63	J-1197	(N/A)	16.55	J-1198
5909	J-3162	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	69.94	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5913	J-3164	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	75.78	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5917	J-3166	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	71.13	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5922	J-3169	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	81.02	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5929	J-3173	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	73.13	20.00	32.62	J-2323	(N/A)	17.23	J-1198
5936	J-3177	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	54.60	20.00	22.14	J-2919	(N/A)	17.16	J-1198
5941	J-3180	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	57.47	20.00	23.87	J-1197	(N/A)	16.79	J-1198
5942	J-3181	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	54.45						

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6058	J-3247	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	28.71	20.00	23.85	J-1197	(N/A)	16.77	J-1198
6059	J-3248	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.86	20.00	23.85	J-1197	(N/A)	16.77	J-1198
6078	J-3260	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	60.91	20.00	23.62	J-1197	(N/A)	16.54	J-1198
6093	J-3269	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	71.38	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6095	J-3270	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	35.17	20.00	22.37	J-2919	(N/A)	17.16	J-1198
6101	J-3273	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	54.66	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6116	J-3282	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	32.40	20.00	32.19	J-3283	(N/A)	17.23	J-1198
6117	J-3283	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	29.17	20.00	32.40	J-3282	(N/A)	17.23	J-1198
6142	J-3298	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	81.11	20.00	21.57	J-2919	(N/A)	17.16	J-1198
6144	J-3299	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	90.20	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6171	J-3315	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	70.44	20.00	21.80	J-2919	(N/A)	17.16	J-1198
6173	J-3316	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	75.94	20.00	20.78	J-2919	(N/A)	17.15	J-1198
6184	J-3322	Stewartsville	TRUE	1.00	3500.00	1.11	3500.11	20.00	49.41	20.00	21.24	J-676	(N/A)	17.23	J-1198
6210	J-3338	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	31.56	20.00	22.23	J-2919	(N/A)	17.16	J-1198
6253	J-3365	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	20.10	20.00	21.84	J-2919	(N/A)	17.16	J-1198
6290	J-3386	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	91.74	20.00	23.87	J-1197	(N/A)	16.79	J-1198
6308	J-3397	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	58.21	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6310	J-3398	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	52.22	20.00	22.59	J-2919	(N/A)	17.16	J-1198
6343	J-3418	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	24.95	20.00	27.84	J-3163	(N/A)	17.23	J-1198
6372	J-3435	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	45.54	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6386	J-3443	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.72	20.00	22.33	J-2919	(N/A)	17.16	J-1198
6388	J-3444	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	57.03	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6389	J-3445	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	60.16	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6403	J-3453	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	43.82	20.00	31.62	J-2323	(N/A)	17.23	J-1198
6408	J-3456	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	53.38	20.00	23.88	J-1197	(N/A)	16.80	J-1198
6417	J-3461	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	30.22	20.00	23.55	J-1197	(N/A)	16.47	J-1198
6429	J-3468	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	62.25	20.00	23.87	J-1197	(N/A)	16.79	J-1198
6436	J-3472	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	22.50	20.00	26.02	J-3473	(N/A)	17.23	J-1198
6437	J-3473	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	26.02	20.00	26.12	J-3472	(N/A)	17.23	J-1198
6444	J-3477	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	24.06	20.00	27.55	J-1742	(N/A)	17.23	J-1198
6455	J-3483	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	26.44	20.00	23.86	J-1197	(N/A)	16.78	J-1198
6456	J-3484	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	22.54	20.00	23.86	J-1197	(N/A)	16.78	J-1198
6458	J-3485	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	60.78	20.00	23.80	J-1197	(N/A)	16.72	J-1198
6464	J-3488	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	61.31	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6479	J-3497	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	69.70	20.00	23.71	J-1197	(N/A)	16.63	J-1198
6495	J-3506	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	52.27	20.00	23.85	J-1197	(N/A)	16.77	J-1198
6522	J-3522	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	57.44	20.00	23.87	J-1197	(N/A)	16.79	J-1198
6528	J-3525	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	65.08	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6543	J-3534	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	38.70	20.00	23.86	J-1197	(N/A)	16.78	J-1198
6567	J-3549	Forest	TRUE	1.00	3500.00	2.88	3501.88	20.00	33.72	20.00	23.63	J-1197	(N/A)	16.55	J-1198
6568	J-3550	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	38.20	20.00	23.63	J-1197	(N/A)	16.55	J-1198
6570	J-3551	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	52.77	20.00	23.89	J-1197	(N/A)	16.82	J-1198
6637	J-3591	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	39.22	20.00	22.43	J-2919	(N/A)	17.16	J-1198
6652	J-3600	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	84.37	20.00	23.85	J-1197	(N/A)	16.77	J-1198
6721	J-3640	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	67.54	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6725	J-3642	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	69.92	20.00	23.86	J-1197	(N/A)	16.78	J-1198
6726	J-3643	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	67.95	20.00	23.86	J-1197	(N/A)	16.78	J-1198
6735	J-3648	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	53.35	20.00	23.90	J-1197	(N/A)	16.82	J-1198
6742	J-3652	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	26.21	20.00	21.63	J-668	(N/A)	17.17	J-1198
6757	J-3661	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	27.78	20.00	20.92	J-2919	(N/A)	17.15	J-1198
6762	J-3664	Forest	TRUE	1.00	3500.00	2.08	3501.08	20.00	29.14	20.00	23.86	J-1197	(N/A)	16.78	J-1198
6814	J-3695	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	31.08	20.00	22.16	J-2919	(N/A)	17.16	J-1198
6831	J-3705	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	72.12	20.00	23.89	J-1197	(N/A)	16.81	J-1198
6833	J-3706	Lakes	TRUE	1.00	3500.00	1.20	3500.20	20.00	96.57	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6834	J-3707	Lakes	TRUE	1.00	3500.00	1.29	3500.29	20.00	101.39	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6852	J-3717	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	58.78	20.00	23.87	J-1197	(N/A)	16.80	J-1198
6872	J-3729	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	56.49	20.00	23.87	J-1197	(N/A)	16.79	J-1198
6873	J-3730	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	51.69	20.00	23.87	J-1197	(N/A)	16.79	J-1198
6875	J-3731	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	57.96	20.00	32.62	J-2323	(N/A)	17.23	J-1198
6941	J-3770	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	54.56	20.00	24.28	J-1197	(N/A)	17.20	J-1198
6954	J-3777	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	58.35	20.00	23.90	J-1197	(N/A)	16.82	J-1198
6966	J-3784	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	66.75	20.00	23.88	J-1197	(N/A)	16.80	J-1198
6970	J-3786	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	56.97	20.00	23.87	J-1197	(N/A)	16.79	J-1198
6972	J-3787	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	74.19	20.00	23.88	J-1197	(N/A)	16.81	J-1198
6974	J-3788	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	51.59	20.00	24.30	J-1197	(N/A)	17.22	J-1198
7023	J-3817	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	34.50	20.00	20.40	J-2919	(N/A)	17.15	J-1198
7025	J-3818	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	63.25	20.00	23.25	J-1197	(N/A)	16.17	J-1198
7033	J-3822	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	55.35	20.00	24.26	J-1197	(N/A)	17.18	J-1198
7038	J-3825	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	39.23	20.00	23.25	J-1197	(N/A)	16.17	J-1198
7040	J-3826	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	56.62	20.00	23.25	J-1197	(N/A)	16.17	J-1198
7042	J-3827	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	83.80	20.00	23.25	J-1197	(N/A)	16.17	J-1198
7044	J-3828	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	53.74	20.00	23.25	J-1197	(N/A)	16.17	J-1198
7064	J-3839	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	53.72	20.00	23.82	J-1197	(N/A)	16.75	J-1198
7077	J-3847	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	44.38	20.00	24.26	J-1197	(N/A)	17.18	J-1198
7082	J-3850	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	43.38	20.00	24.30	J-1197	(N/A)	17.22	J-1198
7086	J-3852	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	42.50	20.00	24.26	J-1197	(N/A)	17.18	J-1198
7090	J-3854	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	24.40	20.00	23.84	J-1197	(N/A)	16.77	J-1198
7092	J-3855	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	35.74	20.00	23.60	J-1197	(N/A)	16.52	J-1198
7096	J-3857	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	41.31						

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7359	J-3978	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	30.34	20.00	23.87	J-1197	(N/A)	16.79	J-1198
7374	J-3982	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	50.09	20.00	23.63	J-1197	(N/A)	16.55	J-1198
7389	J-3989	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	56.48	20.00	23.90	J-1197	(N/A)	16.82	J-1198
7419	J-4000	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	48.65	20.00	22.73	J-2919	(N/A)	16.87	J-1198
7431	J-4004	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	52.50	20.00	23.63	J-1197	(N/A)	16.55	J-1198
7439	J-4007	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	33.76	20.00	23.63	J-1197	(N/A)	16.55	J-1198
7450	J-4009	Forest	TRUE	1.00	3500.00	3.09	3502.08	20.00	46.82	20.00	20.29	J-2919	(N/A)	16.90	J-1198
7524	J-4037	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	30.32	20.00	23.63	J-1197	(N/A)	16.55	J-1198
7548	J-4047	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	49.68	20.00	23.83	J-1197	(N/A)	16.75	J-1198
7551	J-4048	Forest	TRUE	1.00	3500.00	1.88	3500.88	20.00	48.55	20.00	23.83	J-1197	(N/A)	16.75	J-1198
7569	J-4052	Lakes	TRUE	1.00	3500.00	1.37	3500.37	20.00	73.09	20.00	32.62	J-2323	(N/A)	17.23	J-1198
7574	J-4053	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.79	20.00	23.63	J-1197	(N/A)	16.55	J-1198
7608	J-4064	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	38.32	20.00	23.83	J-1197	(N/A)	16.75	J-1198
7639	J-4075	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	26.40	20.00	23.82	J-1197	(N/A)	16.74	J-1198
7653	J-4079	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.03	20.00	23.83	J-1197	(N/A)	16.75	J-1198
7763	J-4109	Forest	TRUE	1.00	3500.00	2.48	3501.48	20.00	89.97	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7786	J-4117	Forest	TRUE	1.00	3500.00	2.48	3501.48	20.00	25.04	20.00	20.29	J-2919	(N/A)	16.90	J-1198
7802	J-4121	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	55.96	20.00	23.87	J-1197	(N/A)	16.79	J-1198
7808	J-4122	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	134.08	20.00	23.25	J-1197	(N/A)	16.17	J-1198
7948	J-4149	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	59.57	20.00	23.87	J-1197	(N/A)	16.79	J-1198
7983	J-4155	Forest	TRUE	1.00	3500.00	2.28	3501.28	20.00	40.65	20.00	23.83	J-1197	(N/A)	16.75	J-1198
8469	J-4186	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	58.87	20.00	23.83	J-1197	(N/A)	16.75	J-1198
8473	J-4188	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	61.94	20.00	23.87	J-1197	(N/A)	16.79	J-1198
8477	J-4190	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	55.47	20.00	23.84	J-1197	(N/A)	16.76	J-1198
8479	J-4191	Forest	TRUE	1.00	3500.00	1.28	3500.28	20.00	59.62	20.00	23.87	J-1197	(N/A)	16.79	J-1198
8493	J-4199	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	57.87	20.00	23.89	J-1197	(N/A)	16.82	J-1198
8506	J-4206	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	65.92	20.00	23.89	J-1197	(N/A)	16.81	J-1198
8509	J-4207	Forest	TRUE	1.00	3500.00	1.68	3500.68	20.00	34.28	20.00	23.86	J-1197	(N/A)	16.78	J-1198
8534	J-4217	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	40.08	20.00	24.31	J-1197	(N/A)	17.23	J-1198
8536	J-4218	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	27.95	20.00	24.31	J-1197	(N/A)	17.23	J-1198
8538	J-4219	Forest	TRUE	1.00	3500.00	1.48	3500.48	20.00	85.62	20.00	23.25	J-1197	(N/A)	16.17	J-1198
8540	J-4220	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	47.57	20.00	24.31	J-1197	(N/A)	17.23	J-1198
8542	J-4221	Forest	TRUE	1.00	3500.00	1.08	3500.08	20.00	55.40	20.00	24.31	J-1197	(N/A)	17.23	J-1198
8614	J-4223	Forest	TRUE	1.00	3500.00	1.00	3500.00	20.00	67.16	20.00	23.25	J-1197	(N/A)	16.17	J-1198
8617	J-4224	Forest	TRUE	1.00	3500.00	1.00	3500.00	20.00	67.16	20.00	23.25	J-1197	(N/A)	16.17	J-1198
8679	J-4225	Forest	TRUE	1.00	3500.00	1.00	3500.00	20.00	85.99	20.00	23.37	J-1197	(N/A)	16.29	J-1198

Run #2 – Steady state analysis of twice average conditions for the proposed Bedford County PSA Water Systems with initial conditions as follow:

Stewartsville Water System:

WVWA's Parkway Tank – Normal Low (1323')

WVWA's Falling Creek WTP – Off

Lakes / Forest Water System:

Smith Mountain Lake Tank – Normal Low (1219')

Proposed WTP – Off

Proposed BCPSA High Point Transmission Line – Constructed – Closed

New London Tank – Normal Low (1065')

Althea Grove Tank – Normal Low (1065')

City of Lynchburg's connections – Closed

Purpose – To report the available fire flows in the proposed system under these conditions while maintaining 20 psi for all users in the system.

Result – Please refer to the included available fire flow exhibits and fire flow report for details.

**BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013**

Run 2 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.
Proposed Water System.

All Tanks at Normal Low Level & Proposed Transmission Main - Closed.

Steady State Analysis

Junction Report - sorted by pressure

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
8695	J-4226	680.00	<None>	(N/A)	(N/A)	(N/A)
8701	J-4227	1079.00	<None>	(N/A)	(N/A)	(N/A)
8705	J-4228	1112.00	<None>	(N/A)	(N/A)	(N/A)
8707	J-4229	1110.00	<None>	(N/A)	(N/A)	(N/A)
8709	J-4230	985.00	<None>	(N/A)	(N/A)	(N/A)
8713	J-4231	607.00	<None>	(N/A)	(N/A)	(N/A)
8716	J-4232	1030.00	<None>	(N/A)	(N/A)	(N/A)
8719	J-4233	1043.00	<None>	(N/A)	(N/A)	(N/A)
8721	J-4234	916.00	<None>	(N/A)	(N/A)	(N/A)
8722	J-4235	979.00	<None>	(N/A)	(N/A)	(N/A)
2243	J-1198	1025.04	Tank_Node	1.08	1064.98	17.28
387	J-211	1017.35	Tank_Node	0.08	1064.74	20.50
386	J-210	1016.56	Tank_Node	0.08	1064.73	20.84
2242	J-1197	1008.68	Forest	0.48	1064.98	24.36
7305	J-3957	1007.03	Forest	0.48	1064.98	25.07
2354	J-1262	760.55	Forest	1.48	825.35	28.04
220	J-103	996.47	Forest	0.08	1064.02	29.23
4527	J-2373	996.31	Forest	0.28	1064.02	29.30
219	J-102	996.18	Forest	0.08	1064.02	29.35
2316	J-1242	756.89	Forest	0.88	825.50	29.68
253	J-125	992.56	Forest	0.08	1064.01	30.91
252	J-124	992.29	Forest	0.28	1064.01	31.03
6401	J-3452	991.91	Forest	0.68	1064.98	31.61
6400	J-3451	991.70	Forest	0.48	1064.98	31.70
4433	J-2323	993.46	Lakes	1.24	1068.85	32.62
2909	J-1575	947.22	Lakes	0.37	1022.90	32.74
1726	J-877	987.82	Forest	0.48	1063.87	32.91
2560	J-1375	946.32	Lakes	0.55	1022.94	33.15
1287	J-668	985.88	Forest	0.68	1063.06	33.39
2534	J-1360	945.28	Lakes	0.46	1022.88	33.57
2427	J-1300	944.12	Lakes	0.20	1022.96	34.11
1725	J-876	984.63	Forest	0.68	1063.87	34.29
2933	J-1586	914.04	Lakes	0.63	993.43	34.35
6790	J-3681	912.74	Lakes	0.20	993.47	34.93
724	J-417	900.05	Forest	0.88	981.49	35.24
1825	J-941	972.00	Forest	0.68	1053.97	35.46
1824	J-940	972.00	Forest	0.88	1053.97	35.47
6791	J-3682	911.31	Lakes	0.20	993.47	35.55
2650	J-1427	907.90	Lakes	0.55	991.26	36.07
2036	J-1077	939.35	Lakes	0.81	1022.88	36.14
4709	J-2476	896.26	Forest	0.08	981.49	36.88
555	J-316	896.02	Forest	0.48	981.49	36.98
556	J-317	895.60	Forest	0.68	981.49	37.16
6882	J-3735	975.61	Forest	0.28	1061.87	37.32
4045	J-2183	906.88	Lakes	0.20	993.48	37.47
1374	J-691	974.62	Forest	0.68	1061.87	37.75
3903	J-2119	905.70	Lakes	0.20	993.45	37.96
5483	J-2919	964.00	Forest	0.28	1051.93	38.05
2296	J-1230	737.36	Forest	1.48	825.36	38.08
5484	J-2920	963.65	Forest	0.48	1051.93	38.20
645	J-371	975.28	Forest	0.48	1063.82	38.31
2635	J-1418	965.34	Forest	0.48	1053.97	38.35
4447	J-2327	904.74	Lakes	0.63	993.44	38.38
4870	J-2566	974.83	Forest	0.88	1063.82	38.50
646	J-372	974.88	Forest	0.08	1063.88	38.51
6334	J-3412	904.37	Lakes	0.20	993.44	38.54
5961	J-3191	964.80	Forest	0.68	1053.97	38.58
3970	J-2150	962.14	Forest	0.48	1051.89	38.83
2636	J-1419	964.20	Forest	0.48	1053.97	38.84
3747	J-2045	974.49	Forest	0.68	1064.96	39.14
6335	J-3413	902.79	Lakes	0.20	993.44	39.22
6281	J-3381	973.92	Forest	0.88	1064.96	39.39
2657	J-1431	890.34	Forest	0.88	981.49	39.44
2558	J-1374	900.00	Lakes	0.29	991.16	39.44
548	J-312	972.00	Forest	0.08	1063.62	39.64
4511	J-2364	972.00	Forest	0.48	1063.62	39.64
2167	J-1152	973.02	Forest	0.68	1064.96	39.78
891	J-500	960.04	Forest	0.88	1052.02	39.80
5811	J-3108	901.12	Lakes	0.29	993.48	39.96
7297	J-3954	889.03	Forest	0.28	981.48	40.00
4707	J-2475	888.98	Forest	0.28	981.48	40.02
6276	J-3378	874.19	Lakes	0.20	967.37	40.31
6277	J-3379	873.94	Lakes	0.20	967.37	40.42
4706	J-2474	888.00	Forest	0.48	981.48	40.44
3229	J-1752	899.51	Lakes	0.20	993.44	40.64
4046	J-2184	899.47	Lakes	0.37	993.48	40.67
1667	J-838	928.91	Lakes	0.20	1022.93	40.68
547	J-311	969.55	Forest	1.68	1063.59	40.69
6370	J-3434	899.11	Lakes	0.20	993.44	40.81
7909	J-4143	886.95	Forest	0.68	981.48	40.90
1483	J-744	958.70	Forest	0.48	1053.48	41.01
3230	J-1753	898.45	Lakes	0.20	993.44	41.10
3959	J-2145	966.29	Forest	0.68	1062.54	41.65
4794	J-2524	966.14	Forest	0.48	1062.54	41.71
2760	J-1492	896.95	Lakes	0.37	993.44	41.75
3011	J-1621	894.73	Lakes	1.06	991.30	41.78
1039	J-564	884.00	Forest	0.08	981.48	42.18
6945	J-3772	955.32	Forest	0.08	1053.48	42.47
2322	J-1245	892.96	Lakes	0.37	991.16	42.49

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2860	J-1550	895.17	Lakes	0.55	993.43	42.51
134	J-66	966.58	Forest	0.08	1064.99	42.58
4731	J-2489	964.69	Forest	1.08	1063.24	42.64
403	J-221	964.62	Forest	0.08	1063.24	42.66
404	J-222	964.54	Forest	0.08	1063.24	42.70
2303	J-1234	894.73	Lakes	1.15	993.48	42.73
6417	J-3461	966.15	Forest	0.28	1064.99	42.76
437	J-243	964.29	Forest	0.48	1063.23	42.81
6946	J-3773	954.48	Forest	0.08	1053.48	42.84
1668	J-839	923.66	Lakes	0.37	1022.91	42.94
2805	J-1519	963.79	Forest	1.48	1063.13	42.98
7742	J-4106	882.09	Forest	0.88	981.48	43.00
6742	J-3652	963.89	Forest	0.48	1063.54	43.12
1286	J-667	963.42	Forest	0.08	1063.54	43.32
2280	J-1220	890.97	Lakes	0.55	991.26	43.39
2166	J-1151	964.52	Forest	0.08	1064.96	43.46
2275	J-1217	960.04	Forest	0.88	1060.49	43.46
5312	J-2820	959.77	Forest	0.08	1060.49	43.58
3162	J-1712	964.01	Forest	0.48	1064.96	43.68
3137	J-1697	952.48	Forest	0.28	1053.98	43.91
5104	J-2702	879.93	Forest	0.68	981.48	43.93
3136	J-1696	952.40	Forest	0.28	1053.98	43.95
1482	J-743	951.89	Forest	0.28	1053.56	43.99
5494	J-2925	951.87	Forest	0.28	1053.56	43.99
5103	J-2701	879.78	Forest	0.68	981.48	44.00
6603	J-3570	950.26	Forest	0.08	1052.04	44.04
3142	J-1700	949.88	Forest	0.08	1051.76	44.08
3416	J-1859	963.05	Forest	0.48	1064.97	44.10
4967	J-2623	952.00	Forest	0.48	1053.98	44.12
4968	J-2624	951.97	Forest	1.48	1053.98	44.13
2422	J-1297	889.14	Lakes	0.20	991.16	44.14
6709	J-3633	962.84	Forest	0.88	1064.96	44.18
2026	J-1070	888.99	Lakes	0.20	991.16	44.20
6524	J-3523	951.76	Forest	1.28	1053.98	44.23
1152	J-608	949.78	Forest	0.28	1052.04	44.24
879	J-494	949.76	Forest	0.88	1052.03	44.24
3143	J-1701	949.41	Forest	0.88	1051.76	44.29
3833	J-2085	951.59	Forest	0.48	1053.98	44.30
5571	J-2969	949.13	Forest	0.08	1052.03	44.52
7741	J-4105	878.50	Forest	0.68	981.48	44.55
5931	J-3174	948.50	Forest	0.28	1051.78	44.68
3740	J-2041	948.31	Forest	0.88	1051.78	44.77
5012	J-2649	959.38	Forest	0.08	1063.19	44.91
1121	J-597	948.00	Forest	0.28	1052.03	45.01
6575	J-3554	948.00	Forest	0.68	1052.03	45.01
361	J-194	959.12	Forest	0.08	1063.19	45.02
2283	J-1222	721.24	Forest	1.08	825.50	45.11
133	J-65	960.72	Forest	0.48	1064.99	45.11
3016	J-1622	857.19	Lakes	2.80	961.54	45.15
333	J-176	958.79	Forest	0.08	1063.18	45.16
332	J-175	958.68	Forest	0.08	1063.18	45.21
4000	J-2163	946.70	Forest	0.48	1051.71	45.43
3009	J-1620	855.41	Lakes	0.98	960.77	45.58
6540	J-3532	959.45	Forest	0.68	1064.98	45.66
2348	J-1259	948.00	Forest	0.08	1053.85	45.79
8457	J-4180	948.00	Forest	0.08	1053.85	45.79
8459	J-4181	948.00	Forest	0.08	1053.85	45.79
8461	J-4182	948.00	Forest	0.08	1053.85	45.79
8471	J-4187	948.00	Forest	0.08	1053.85	45.79
620	J-355	948.00	Forest	0.08	1053.86	45.80
5709	J-3049	948.00	Forest	0.08	1053.86	45.80
6541	J-3533	958.85	Forest	0.68	1064.98	45.92
3415	J-1858	958.02	Forest	0.48	1064.97	46.28
2276	J-1218	953.15	Forest	0.88	1060.49	46.44
2206	J-1176	957.46	Forest	0.28	1064.97	46.52
3188	J-1727	944.00	Forest	0.48	1051.78	46.63
5553	J-2958	944.00	Forest	0.08	1051.78	46.63
3148	J-1704	943.66	Forest	0.68	1051.47	46.64
621	J-356	945.94	Forest	0.08	1053.85	46.69
3710	J-2024	943.79	Forest	0.28	1051.78	46.72
4609	J-2421	943.62	Forest	0.68	1051.64	46.74
3067	J-1653	943.39	Forest	0.08	1051.47	46.76
3189	J-1728	943.61	Forest	0.08	1051.78	46.80
705	J-406	943.60	Forest	1.68	1051.81	46.82
3068	J-1654	943.24	Forest	0.28	1051.47	46.83
4610	J-2422	943.27	Forest	0.88	1051.64	46.88
3971	J-2151	943.50	Forest	0.48	1051.86	46.89
704	J-405	943.43	Forest	0.08	1051.81	46.89
5984	J-3204	943.75	Forest	0.08	1052.21	46.93
5240	J-2779	945.49	Forest	0.48	1053.98	46.94
5983	J-3203	943.58	Forest	0.48	1052.21	47.00
5239	J-2778	945.24	Forest	0.28	1053.98	47.04
5822	J-3114	872.71	Forest	0.68	981.49	47.06
3482	J-1897	945.01	Forest	0.48	1053.85	47.09
1058	J-573	943.03	Forest	1.48	1052.03	47.16
7027	J-3819	942.79	Forest	1.48	1051.86	47.19
887	J-498	951.40	Forest	0.88	1060.49	47.20
6069	J-3254	857.94	Lakes	0.46	967.36	47.34
3289	J-1789	944.36	Forest	0.48	1053.85	47.37
3290	J-1790	944.28	Forest	0.28	1053.85	47.40
7886	J-4139	942.56	Forest	1.28	1052.13	47.41
6070	J-3255	857.78	Lakes	0.20	967.36	47.41
1961	J-1029	944.43	Forest	1.08	1054.06	47.43
523	J-296	944.14	Forest	0.48	1053.99	47.53
2947	J-1593	857.48	Lakes	0.20	967.36	47.54
1119	J-596	871.43	Forest	1.28	981.49	47.61
4738	J-2493	942.53	Forest	0.88	1052.79	47.71
1221	J-638	942.51	Forest	0.28	1052.79	47.71
3006	J-1619	857.03	Lakes	0.46	967.36	47.73

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2001	J-1055	912.45	Lakes	0.37	1022.87	47.78
5226	J-2770	870.37	Forest	1.08	981.49	48.08
537	J-305	949.32	Forest	0.28	1060.47	48.09
3021	J-1624	953.76	Forest	1.08	1064.98	48.12
481	J-270	869.87	Forest	0.08	981.48	48.29
2238	J-1195	881.71	Lakes	0.55	993.43	48.34
2064	J-1092	953.22	Forest	0.68	1064.98	48.35
480	J-269	869.32	Forest	0.08	981.48	48.53
1016	J-554	941.75	Forest	0.08	1053.92	48.53
5227	J-2771	869.25	Forest	1.08	981.49	48.56
5286	J-2805	941.58	Forest	0.28	1053.92	48.60
6398	J-3450	948.08	Forest	0.08	1060.47	48.62
2769	J-1497	869.06	Forest	0.88	981.48	48.64
307	J-159	939.30	Forest	0.08	1051.81	48.68
216	J-100	939.26	Forest	0.08	1051.81	48.69
217	J-101	939.26	Forest	0.08	1051.81	48.70
213	J-98	939.25	Forest	0.08	1051.81	48.70
214	J-99	939.25	Forest	0.08	1051.81	48.70
6562	J-3546	939.49	Forest	0.28	1052.12	48.73
5074	J-2686	939.93	Forest	2.09	1052.70	48.79
539	J-306	939.80	Forest	0.48	1052.70	48.85
290	J-149	938.91	Forest	0.08	1051.81	48.85
6563	J-3547	939.19	Forest	0.48	1052.12	48.86
2257	J-1206	952.00	Forest	0.88	1064.98	48.88
710	J-408	940.94	Forest	0.68	1054.07	48.95
2224	J-1187	712.26	Forest	0.68	825.46	48.98
5951	J-3186	938.57	Forest	0.48	1051.81	49.00
4773	J-2512	949.65	Forest	0.08	1063.11	49.09
540	J-307	939.16	Forest	0.88	1052.71	49.13
7413	J-3997	938.54	Forest	1.88	1052.12	49.14
759	J-434	949.47	Forest	0.28	1063.11	49.17
6925	J-3761	943.46	Forest	0.48	1057.37	49.28
775	J-442	937.89	Forest	0.68	1051.81	49.29
6471	J-3492	937.89	Forest	1.08	1051.83	49.30
6472	J-3493	937.77	Forest	1.08	1051.83	49.35
4829	J-2543	937.58	Forest	0.48	1051.79	49.41
5498	J-2927	937.77	Forest	0.68	1052.11	49.47
6085	J-3264	937.63	Forest	0.08	1052.03	49.50
1057	J-572	937.63	Forest	0.28	1052.03	49.50
7216	J-3918	874.53	Lakes	0.20	988.99	49.52
4676	J-2458	874.49	Lakes	0.20	988.99	49.54
2321	J-1244	876.58	Lakes	0.37	991.16	49.57
4828	J-2542	937.15	Forest	0.28	1051.79	49.60
5092	J-2695	948.90	Forest	0.48	1063.59	49.62
4114	J-2213	939.41	Forest	1.28	1054.15	49.64
772	J-440	937.32	Forest	0.28	1052.11	49.66
2689	J-1449	866.61	Forest	2.29	981.47	49.70
4677	J-2459	874.06	Lakes	0.20	988.99	49.72
3042	J-1637	936.55	Forest	0.08	1051.78	49.85
7215	J-3917	873.73	Lakes	0.20	988.99	49.87
4536	J-2378	936.45	Forest	0.28	1051.78	49.90
3041	J-1636	936.41	Forest	0.08	1051.78	49.91
2007	J-1059	938.56	Forest	1.88	1053.94	49.92
3254	J-1768	948.22	Forest	0.48	1063.59	49.92
7576	J-4054	936.71	Forest	0.08	1052.25	49.99
802	J-455	936.25	Forest	0.88	1051.82	50.00
1644	J-825	848.00	Lakes	0.20	963.60	50.02
2417	J-1294	848.00	Lakes	0.20	963.60	50.02
4821	J-2538	936.57	Forest	0.08	1052.26	50.05
4820	J-2537	936.42	Forest	0.28	1052.26	50.12
4159	J-2233	941.44	Forest	1.28	1057.37	50.16
5601	J-2986	936.00	Forest	0.88	1051.94	50.16
5602	J-2987	936.00	Forest	0.48	1051.94	50.16
1641	J-823	845.61	Lakes	0.20	961.56	50.17
4936	J-2605	936.20	Forest	0.28	1052.19	50.18
4937	J-2606	936.16	Forest	0.08	1052.19	50.20
1587	J-788	845.50	Lakes	0.20	961.57	50.21
2033	J-1075	936.00	Forest	1.08	1052.16	50.26
6303	J-3394	935.56	Forest	0.48	1051.76	50.27
2207	J-1177	948.77	Forest	0.88	1064.97	50.28
6302	J-3393	935.38	Forest	0.68	1051.76	50.35
1588	J-789	845.11	Lakes	0.81	961.56	50.38
1498	J-749	936.90	Forest	0.28	1053.38	50.40
3746	J-2044	948.39	Forest	0.68	1064.96	50.43
3255	J-1769	946.94	Forest	0.48	1063.59	50.47
2829	J-1532	864.77	Forest	0.48	981.47	50.49
1782	J-913	937.14	Forest	0.48	1054.31	50.70
6109	J-3278	936.20	Forest	0.08	1053.38	50.70
4080	J-2199	864.05	Forest	0.28	981.48	50.81
1018	J-555	934.36	Forest	0.48	1051.83	50.82
4054	J-2186	934.30	Forest	0.88	1051.78	50.83
7814	J-4124	934.41	Forest	0.88	1052.03	50.89
7088	J-3853	936.00	Forest	0.28	1053.65	50.90
524	J-297	936.31	Forest	0.48	1053.98	50.91
6349	J-3421	934.11	Forest	2.49	1051.81	50.93
2776	J-1501	863.75	Forest	1.08	981.47	50.93
6350	J-3422	933.83	Forest	1.28	1051.81	51.04
758	J-433	944.87	Forest	0.88	1063.05	51.13
531	J-301	933.71	Forest	0.48	1052.03	51.19
2055	J-1088	946.39	Forest	0.08	1064.99	51.31
536	J-304	941.68	Forest	0.08	1060.50	51.41
2450	J-1314	841.85	Lakes	1.50	960.69	51.42
5132	J-2717	943.61	Forest	0.48	1062.54	51.46
2002	J-1056	903.79	Lakes	0.63	1022.86	51.52
2339	J-1254	872.00	Lakes	0.89	991.28	51.61
3797	J-2068	943.18	Forest	0.28	1062.54	51.65
2449	J-1313	841.25	Lakes	1.06	960.69	51.67
2281	J-1221	871.65	Lakes	0.55	991.26	51.75
2363	J-1267	934.99	Forest	0.68	1054.63	51.76

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
765	J-437	943.33	Forest	0.48	1062.99	51.77
5056	J-2676	942.98	Forest	0.08	1062.99	51.93
3824	J-2080	931.79	Forest	1.28	1051.87	51.95
5874	J-3143	931.70	Forest	0.08	1051.82	51.97
773	J-441	932.00	Forest	1.88	1052.14	51.98
4984	J-2632	931.70	Forest	0.28	1051.88	52.00
1969	J-1034	843.27	Lakes	0.46	963.60	52.06
4985	J-2633	931.54	Forest	1.28	1051.88	52.07
2690	J-1450	861.06	Forest	1.08	981.47	52.09
1063	J-575	931.49	Forest	0.68	1051.94	52.11
4424	J-2321	931.63	Forest	0.88	1052.11	52.13
3494	J-1904	931.33	Forest	1.48	1051.82	52.13
695	J-400	940.00	Forest	1.48	1060.60	52.18
675	J-390	931.25	Forest	0.08	1051.88	52.19
2708	J-1461	860.74	Forest	1.28	981.47	52.24
6076	J-3259	868.24	Lakes	0.20	988.99	52.24
7009	J-3809	931.35	Forest	0.68	1052.10	52.25
930	J-514	932.00	Forest	0.08	1052.79	52.26
5037	J-2664	932.00	Forest	0.68	1052.79	52.26
2258	J-1207	944.14	Forest	0.88	1064.98	52.28
532	J-302	931.04	Forest	0.28	1052.03	52.35
1532	J-761	943.86	Forest	0.08	1064.97	52.40
810	J-459	930.61	Forest	0.28	1051.81	52.44
6024	J-3226	932.84	Forest	0.88	1054.10	52.46
2517	J-1350	941.92	Forest	0.08	1063.23	52.48
848	J-478	941.64	Forest	0.08	1063.04	52.53
8519	J-4211	930.32	Forest	0.08	1051.81	52.56
444	J-247	932.59	Forest	0.08	1054.10	52.57
6075	J-3258	867.47	Lakes	0.20	988.99	52.58
2680	J-1444	869.73	Lakes	1.06	991.28	52.59
4857	J-2559	941.49	Forest	0.08	1063.04	52.59
2304	J-1235	871.88	Lakes	0.63	993.48	52.61
3434	J-1869	931.85	Forest	0.48	1053.48	52.62
4603	J-2418	941.44	Forest	1.28	1063.23	52.69
3495	J-1905	929.96	Forest	1.08	1051.82	52.72
7819	J-4125	929.67	Forest	1.28	1051.75	52.82
5070	J-2684	859.40	Forest	0.48	981.48	52.82
7010	J-3810	929.78	Forest	0.68	1052.10	52.92
5069	J-2683	859.13	Forest	2.49	981.48	52.94
941	J-519	930.26	Forest	0.08	1052.79	53.01
6959	J-3780	929.16	Forest	0.88	1051.82	53.07
5307	J-2817	932.74	Forest	0.68	1055.40	53.07
3202	J-1736	931.16	Forest	0.08	1053.84	53.08
5308	J-2818	932.69	Forest	0.08	1055.40	53.09
2824	J-1530	929.90	Forest	1.68	1052.66	53.11
7268	J-3943	942.17	Forest	0.28	1064.99	53.14
470	J-263	858.65	Forest	0.68	981.48	53.14
3834	J-2086	931.14	Forest	0.28	1053.98	53.14
985	J-540	930.92	Forest	0.88	1053.80	53.16
5865	J-3138	929.72	Forest	0.68	1052.66	53.19
4913	J-2591	930.80	Forest	0.48	1053.84	53.23
443	J-246	931.05	Forest	0.88	1054.10	53.24
3444	J-1875	929.48	Forest	1.28	1052.66	53.29
6958	J-3779	928.59	Forest	1.88	1051.82	53.31
6469	J-3491	930.19	Forest	0.28	1053.48	53.34
2748	J-1485	930.15	Forest	0.28	1053.48	53.36
3201	J-1735	930.51	Forest	0.48	1053.84	53.36
3798	J-2069	939.15	Forest	1.08	1062.54	53.39
674	J-389	928.40	Forest	0.28	1051.89	53.43
2639	J-1420	939.30	Forest	0.88	1062.91	53.48
7269	J-3944	941.14	Forest	0.88	1064.98	53.58
447	J-249	928.00	Forest	0.28	1052.06	53.68
5575	J-2971	928.00	Forest	0.28	1052.06	53.68
4928	J-2600	929.73	Forest	0.08	1053.80	53.68
1940	J-1015	929.72	Forest	0.68	1053.84	53.70
1401	J-698	929.43	Forest	0.28	1053.68	53.76
1452	J-728	929.36	Forest	0.08	1053.65	53.78
3843	J-2090	927.60	Forest	0.48	1051.94	53.80
416	J-230	857.11	Forest	0.28	981.48	53.81
2295	J-1229	700.89	Forest	0.88	825.36	53.85
6747	J-3655	856.85	Forest	1.08	981.48	53.92
446	J-248	927.40	Forest	0.28	1052.07	53.93
2605	J-1401	938.40	Forest	0.08	1063.11	53.95
5317	J-2823	938.01	Forest	0.08	1062.90	54.04
2584	J-1388	935.69	Forest	1.28	1060.60	54.04
4831	J-2544	938.17	Forest	0.08	1063.11	54.05
6934	J-3766	929.26	Forest	0.48	1054.33	54.11
2520	J-1352	929.20	Forest	0.08	1054.31	54.13
6748	J-3656	856.27	Forest	0.08	981.48	54.17
2346	J-1258	928.46	Forest	0.08	1053.71	54.19
2519	J-1351	929.04	Forest	0.08	1054.31	54.20
4763	J-2506	856.21	Forest	0.28	981.48	54.20
450	J-251	937.45	Forest	0.08	1062.91	54.28
384	J-209	928.14	Forest	0.08	1053.68	54.32
415	J-229	855.86	Forest	0.28	981.48	54.35
7977	J-4154	926.10	Forest	0.28	1051.74	54.36
4410	J-2316	926.36	Forest	3.29	1052.03	54.37
6130	J-3291	926.11	Forest	0.68	1051.80	54.38
6935	J-3767	928.63	Forest	0.08	1054.33	54.38
4802	J-2528	855.76	Forest	0.08	981.48	54.40
3487	J-1900	928.11	Forest	0.68	1053.84	54.40
2827	J-1531	865.51	Lakes	1.15	991.26	54.40
1746	J-890	928.55	Forest	0.28	1054.31	54.41
4789	J-2521	937.42	Forest	0.08	1063.20	54.42
1468	J-736	927.52	Forest	0.28	1053.30	54.42
383	J-208	927.84	Forest	0.08	1053.70	54.45
6977	J-3790	926.19	Forest	1.28	1052.12	54.49
4311	J-2285	925.37	Forest	1.28	1051.35	54.51
2225	J-1188	699.45	Forest	0.08	825.46	54.52

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5636	J-3006	925.84	Forest	1.08	1051.87	54.53
2516	J-1349	937.20	Forest	0.88	1063.23	54.53
2614	J-1406	937.01	Forest	0.88	1063.11	54.56
5269	J-2795	927.19	Forest	0.48	1053.30	54.56
6976	J-3789	926.01	Forest	0.88	1052.12	54.56
228	J-108	855.36	Forest	0.08	981.48	54.57
3825	J-2081	925.73	Forest	1.08	1051.87	54.58
229	J-109	855.33	Forest	0.08	981.48	54.58
4360	J-2299	925.65	Forest	2.09	1051.80	54.58
7262	J-3940	862.72	Lakes	0.37	988.99	54.63
2938	J-1588	938.67	Forest	1.48	1064.98	54.65
1635	J-819	864.84	Lakes	0.37	991.17	54.65
5824	J-3115	926.45	Forest	0.88	1052.79	54.66
4496	J-2355	938.62	Forest	0.08	1064.98	54.67
449	J-250	936.35	Forest	0.08	1062.90	54.75
4790	J-2522	936.40	Forest	0.08	1063.20	54.86
3219	J-1746	938.17	Forest	0.28	1064.98	54.86
1946	J-1019	926.80	Forest	1.08	1053.84	54.97
634	J-364	926.63	Forest	0.88	1053.71	54.98
6968	J-3785	926.41	Forest	0.28	1053.84	55.14
2334	J-1252	865.95	Lakes	1.24	993.42	55.15
4340	J-2292	924.24	Forest	1.28	1051.82	55.20
7263	J-3941	861.41	Lakes	0.20	988.99	55.20
948	J-523	925.17	Forest	0.08	1052.79	55.21
6627	J-3585	926.56	Forest	0.48	1054.25	55.24
3761	J-2050	923.87	Forest	2.09	1051.79	55.35
2604	J-1400	935.04	Forest	1.28	1063.11	55.41
2153	J-1143	865.32	Lakes	0.46	993.39	55.41
1661	J-834	865.31	Lakes	0.72	993.43	55.43
6626	J-3584	926.13	Forest	1.28	1054.25	55.43
4089	J-2204	923.64	Forest	1.28	1051.81	55.45
2583	J-1387	932.33	Forest	1.68	1060.60	55.50
6362	J-3429	923.53	Forest	2.09	1051.81	55.50
2247	J-1200	934.88	Forest	0.68	1063.20	55.52
3968	J-2149	852.87	Forest	0.68	981.48	55.64
4907	J-2588	931.87	Forest	0.08	1060.60	55.70
4184	J-2243	922.48	Forest	1.28	1051.74	55.93
6297	J-3390	744.26	Forest	0.28	873.78	56.04
2670	J-1438	843.95	Lakes	0.89	973.53	56.06
5086	J-2692	922.11	Forest	0.48	1051.71	56.07
4711	J-2477	851.74	Forest	0.88	981.47	56.13
7068	J-3841	922.28	Forest	0.88	1052.12	56.17
3705	J-2021	851.56	Forest	1.08	981.47	56.21
7069	J-3842	922.11	Forest	1.68	1052.12	56.25
1222	J-639	922.77	Forest	0.68	1052.79	56.26
4784	J-2518	934.95	Forest	0.88	1064.98	56.26
3863	J-2099	934.93	Forest	0.68	1064.98	56.27
6490	J-3503	922.43	Forest	0.48	1052.79	56.40
6298	J-3391	743.36	Forest	0.48	873.78	56.43
921	J-511	922.37	Forest	0.08	1052.79	56.43
3497	J-1906	851.02	Forest	0.28	981.47	56.44
1973	J-1037	931.48	Forest	0.88	1061.95	56.45
729	J-419	923.22	Forest	1.28	1053.73	56.46
4319	J-2286	858.45	Lakes	0.20	988.98	56.48
5506	J-2931	921.45	Forest	1.08	1052.03	56.49
5444	J-2897	922.11	Forest	0.48	1052.79	56.54
2949	J-1594	836.41	Lakes	0.81	967.18	56.58
2675	J-1441	850.65	Forest	1.08	981.47	56.60
6753	J-3659	922.78	Forest	0.48	1053.73	56.66
1636	J-820	860.22	Lakes	0.46	991.17	56.66
5507	J-2932	921.04	Forest	0.68	1052.03	56.67
7031	J-3821	930.96	Forest	0.08	1061.95	56.67
1445	J-724	922.22	Forest	0.28	1053.24	56.69
6062	J-3250	857.96	Lakes	0.20	988.98	56.69
6061	J-3249	857.96	Lakes	0.63	988.98	56.69
2350	J-1260	836.24	Lakes	0.72	967.42	56.75
4771	J-2511	850.26	Forest	0.08	981.47	56.77
2980	J-1606	862.16	Lakes	0.55	993.38	56.78
3723	J-2031	920.43	Forest	0.68	1051.71	56.80
2101	J-1110	862.05	Lakes	0.20	993.39	56.82
2935	J-1587	857.64	Lakes	0.20	988.98	56.83
2100	J-1109	861.97	Lakes	0.20	993.39	56.86
1662	J-835	861.95	Lakes	0.20	993.43	56.88
2970	J-1601	922.48	Forest	0.68	1054.10	56.95
4062	J-2190	920.02	Forest	1.28	1051.74	56.99
7682	J-4086	857.25	Lakes	0.29	988.98	56.99
4288	J-2277	920.11	Forest	2.09	1051.87	57.01
1906	J-993	922.42	Forest	0.68	1054.32	57.07
3533	J-1926	919.69	Forest	0.48	1051.74	57.13
5676	J-3030	927.71	Forest	0.08	1059.82	57.16
6338	J-3415	919.65	Forest	1.68	1051.81	57.18
2324	J-1246	858.94	Lakes	0.72	991.22	57.23
5397	J-2871	919.44	Forest	3.49	1051.89	57.30
5831	J-3119	920.20	Forest	1.08	1052.68	57.32
6337	J-3414	919.27	Forest	0.48	1051.81	57.34
84	J-37	927.15	Forest	0.08	1059.82	57.40
3670	J-2000	929.28	Forest	0.48	1061.95	57.40
4142	J-2226	920.00	Forest	1.28	1052.68	57.40
6104	J-3275	919.00	Forest	0.48	1051.74	57.43
5396	J-2870	919.11	Forest	2.89	1051.89	57.45
6248	J-3362	920.66	Forest	0.28	1053.48	57.47
4259	J-2267	932.00	Forest	0.68	1064.90	57.50
8297	J-4172	919.34	Forest	1.28	1052.25	57.51
4900	J-2584	929.93	Forest	0.28	1062.85	57.51
6702	J-3629	931.94	Forest	0.28	1064.90	57.53
2493	J-1337	1068.30	Fox_Run	0.68	1201.27	57.53
2344	J-1257	920.69	Forest	1.68	1053.69	57.54
3673	J-2002	918.62	Forest	0.88	1051.72	57.58
6103	J-3274	918.57	Forest	0.68	1051.74	57.62

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
971	J-533	929.65	Forest	0.08	1062.85	57.63
6121	J-3285	920.00	Forest	0.48	1053.20	57.63
6122	J-3286	920.00	Forest	0.88	1053.20	57.63
4040	J-2180	918.50	Forest	0.68	1051.81	57.67
2674	J-1440	848.12	Forest	0.28	981.47	57.70
1390	J-694	920.00	Forest	2.29	1053.37	57.70
6731	J-3646	920.00	Forest	0.28	1053.37	57.70
468	J-262	847.98	Forest	0.08	981.48	57.76
2015	J-1064	828.90	Lakes	0.46	962.41	57.76
5953	J-3187	847.96	Forest	0.48	981.48	57.77
2821	J-1528	918.47	Forest	1.68	1052.12	57.82
2889	J-1565	919.82	Forest	1.08	1053.48	57.83
2094	J-1105	919.95	Forest	1.28	1053.75	57.89
5219	J-2766	920.39	Forest	0.88	1054.25	57.91
467	J-261	847.52	Forest	1.48	981.48	57.96
3961	J-2146	917.72	Forest	1.28	1051.74	57.98
5218	J-2765	920.13	Forest	1.08	1054.25	58.02
35	J-5	925.74	Forest	0.08	1059.87	58.03
3134	J-1695	917.63	Forest	0.88	1051.78	58.04
3532	J-1925	917.55	Forest	0.88	1051.74	58.06
6164	J-3311	930.73	Forest	0.08	1064.97	58.08
3133	J-1694	917.40	Forest	0.08	1051.78	58.14
36	J-6	925.43	Forest	1.08	1059.87	58.17
6249	J-3363	918.95	Forest	0.68	1053.48	58.21
5149	J-2726	918.04	Forest	0.88	1052.65	58.24
6099	J-3272	916.99	Forest	0.08	1051.74	58.30
2095	J-1106	918.77	Forest	0.48	1053.75	58.40
7021	J-3816	916.74	Forest	0.08	1051.78	58.42
4005	J-2165	917.60	Forest	1.08	1052.65	58.43
2850	J-1544	927.84	Forest	0.88	1063.05	58.50
2661	J-1433	846.24	Forest	0.88	981.47	58.51
5145	J-2724	917.98	Forest	0.08	1053.23	58.51
3555	J-1938	853.72	Lakes	0.20	988.98	58.52
2704	J-1459	832.00	Lakes	0.72	967.35	58.56
6285	J-3383	920.30	Forest	0.08	1055.73	58.59
1347	J-686	916.89	Forest	2.49	1052.34	58.60
6163	J-3310	929.42	Forest	0.08	1064.97	58.65
1446	J-725	917.55	Forest	0.08	1053.23	58.70
7860	J-4132	918.18	Forest	0.88	1054.25	58.87
1650	J-828	1065.07	Fox_Run	0.48	1201.27	58.93
6816	J-3696	852.78	Lakes	0.20	988.98	58.93
2485	J-1333	918.42	Forest	0.48	1054.63	58.93
2092	J-1104	857.20	Lakes	0.37	993.43	58.94
6286	J-3384	919.50	Forest	0.88	1055.73	58.94
5564	J-2965	915.87	Forest	1.88	1052.12	58.95
163	J-80	918.38	Forest	0.08	1054.63	58.95
2709	J-1462	845.10	Forest	0.48	981.47	59.00
5563	J-2964	915.51	Forest	1.28	1052.12	59.10
2362	J-1266	918.01	Forest	0.48	1054.63	59.11
2231	J-1191	928.24	Forest	0.28	1064.97	59.16
2029	J-1072	737.03	Forest	0.48	873.78	59.17
1747	J-891	917.56	Forest	0.48	1054.31	59.17
6157	J-3306	736.88	Forest	0.68	873.78	59.23
3392	J-1845	914.88	Forest	0.08	1051.79	59.23
3554	J-1937	852.00	Lakes	0.20	988.98	59.27
6158	J-3307	736.69	Forest	0.68	873.78	59.31
5549	J-2956	915.16	Forest	0.48	1052.31	59.34
2091	J-1103	856.23	Lakes	0.46	993.43	59.36
2717	J-1466	823.33	Lakes	0.20	960.64	59.41
5548	J-2955	914.92	Forest	0.68	1052.31	59.44
6146	J-3300	914.31	Forest	0.48	1051.79	59.48
8525	J-4214	914.11	Forest	0.08	1051.74	59.54
2145	J-1138	829.43	Lakes	0.20	967.07	59.55
2954	J-1596	829.52	Lakes	0.89	967.35	59.63
5851	J-3130	913.90	Forest	0.48	1051.74	59.63
2419	J-1295	822.69	Lakes	0.55	960.64	59.69
3393	J-1846	913.79	Forest	0.48	1051.79	59.71
3246	J-1763	913.94	Forest	0.28	1051.94	59.71
2420	J-1296	822.62	Lakes	0.29	960.64	59.71
6869	J-3727	916.20	Forest	0.68	1054.24	59.72
6927	J-3762	913.90	Forest	0.08	1051.94	59.72
2966	J-1599	856.69	Forest	1.28	994.76	59.74
1944	J-1018	926.74	Forest	0.88	1064.96	59.80
5130	J-2716	924.80	Forest	0.28	1063.13	59.85
1649	J-827	1062.94	Fox_Run	0.08	1201.27	59.85
3671	J-2001	923.52	Forest	1.28	1061.95	59.89
2847	J-1542	924.51	Forest	0.28	1063.05	59.94
4468	J-2339	926.29	Forest	0.08	1064.93	59.98
5524	J-2942	916.31	Forest	0.48	1054.97	60.00
3242	J-1760	926.26	Forest	0.08	1064.93	60.00
4016	J-2170	842.76	Forest	1.48	981.48	60.02
2574	J-1382	913.11	Forest	1.68	1051.89	60.04
3245	J-1762	913.15	Forest	0.08	1051.94	60.05
5523	J-2941	916.08	Forest	1.48	1054.97	60.09
6870	J-3728	915.28	Forest	1.08	1054.24	60.12
1399	J-697	925.95	Forest	0.28	1064.95	60.14
109	J-52	925.87	Forest	0.28	1064.95	60.18
3243	J-1761	925.83	Forest	0.28	1064.93	60.18
3441	J-1873	912.62	Forest	0.48	1051.74	60.19
4534	J-2377	925.83	Forest	0.08	1064.95	60.19
100	J-47	925.82	Forest	0.68	1064.95	60.19
130	J-64	925.84	Forest	0.48	1064.98	60.20
2804	J-1518	923.97	Forest	0.08	1063.13	60.21
4107	J-2210	912.00	Forest	1.48	1051.30	60.27
2662	J-1434	842.15	Forest	0.88	981.47	60.28
1943	J-1017	925.61	Forest	0.68	1064.97	60.29
6180	J-3320	923.66	Forest	0.48	1063.05	60.31
2424	J-1298	828.00	Lakes	0.20	967.43	60.32
2425	J-1299	828.00	Lakes	0.29	967.43	60.32

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2810	J-1521	912.33	Forest	0.88	1051.79	60.34
2319	J-1243	827.91	Lakes	1.41	967.41	60.35
2494	J-1338	1061.76	Fox_Run	0.28	1201.27	60.36
1892	J-984	849.37	Lakes	0.55	988.98	60.40
6300	J-3392	911.63	Forest	1.68	1051.30	60.43
3442	J-1874	912.00	Forest	0.08	1051.74	60.46
3918	J-2126	913.38	Forest	1.68	1053.16	60.48
1995	J-1051	1061.28	Fox_Run	0.08	1201.27	60.57
3387	J-1842	912.00	Forest	0.08	1052.09	60.61
5267	J-2794	912.62	Forest	1.08	1052.79	60.65
2820	J-1527	911.94	Forest	1.28	1052.12	60.65
2641	J-1421	922.91	Forest	0.08	1063.13	60.67
2272	J-1215	827.19	Lakes	0.63	967.41	60.67
2619	J-1409	826.75	Lakes	0.55	967.07	60.71
401	J-220	912.45	Forest	0.48	1052.79	60.72
3812	J-2075	910.68	Forest	2.69	1051.21	60.80
1947	J-1020	913.30	Forest	0.88	1053.83	60.80
687	J-396	922.31	Forest	0.08	1062.85	60.81
3674	J-2003	911.10	Forest	0.88	1051.72	60.84
2749	J-1486	912.85	Forest	1.08	1053.48	60.85
2575	J-1383	911.12	Forest	3.29	1051.89	60.90
2913	J-1576	852.47	Lakes	0.29	993.37	60.96
101	J-48	924.00	Forest	0.08	1064.95	60.98
5374	J-2857	924.00	Forest	0.08	1064.95	60.98
5977	J-3200	911.86	Forest	0.48	1052.86	61.01
1076	J-579	919.92	Forest	0.08	1060.94	61.01
400	J-219	911.75	Forest	0.88	1052.79	61.02
5898	J-3156	910.99	Forest	0.08	1052.06	61.03
4702	J-2472	910.76	Forest	0.88	1051.85	61.04
5697	J-3042	923.84	Forest	0.48	1064.98	61.06
1911	J-996	923.78	Forest	1.08	1064.98	61.09
2146	J-1139	825.87	Lakes	0.37	967.07	61.09
3507	J-1912	910.51	Forest	0.48	1051.85	61.15
7209	J-3914	914.61	Forest	0.28	1056.05	61.19
3053	J-1644	910.61	Forest	0.28	1052.09	61.21
5976	J-3199	911.38	Forest	0.88	1052.86	61.21
5295	J-2810	910.59	Forest	0.48	1052.09	61.22
6905	J-3749	914.54	Forest	2.09	1056.05	61.23
4323	J-2287	921.53	Forest	0.88	1063.11	61.25
954	J-526	910.45	Forest	0.28	1052.09	61.28
1303	J-675	910.88	Forest	1.48	1052.52	61.29
111	J-53	923.24	Forest	0.08	1064.93	61.30
5897	J-3155	910.38	Forest	0.88	1052.06	61.30
3984	J-2156	910.00	Forest	1.88	1051.79	61.35
39	J-8	923.14	Forest	0.08	1064.93	61.35
6906	J-3750	914.23	Forest	0.08	1056.05	61.36
7101	J-3860	910.23	Forest	0.48	1052.06	61.36
7100	J-3859	910.23	Forest	0.68	1052.06	61.36
2609	J-1403	910.04	Forest	1.68	1051.89	61.37
5197	J-2753	920.71	Forest	0.08	1062.64	61.41
1305	J-676	1180.99	Stewartsville	0.69	1322.92	61.41
6823	J-3700	919.01	Forest	0.28	1060.94	61.41
2740	J-1480	831.56	Lakes	0.81	973.50	61.41
6980	J-3792	909.22	Forest	1.08	1051.22	61.43
4449	J-2328	1180.91	Stewartsville	0.26	1322.92	61.44
38	J-7	922.91	Forest	0.48	1064.93	61.45
4483	J-2348	922.90	Forest	0.08	1064.93	61.45
2659	J-1432	824.97	Lakes	0.72	967.13	61.50
518	J-293	909.72	Forest	0.48	1052.10	61.60
4061	J-2189	909.24	Forest	0.48	1051.74	61.65
2703	J-1458	824.84	Lakes	0.72	967.35	61.66
2692	J-1451	838.92	Forest	0.88	981.47	61.68
972	J-534	920.06	Forest	0.28	1062.64	61.69
1105	J-592	917.86	Forest	0.08	1060.48	61.71
3601	J-1965	911.54	Forest	0.08	1054.24	61.74
6391	J-3446	913.31	Forest	0.08	1056.05	61.76
5585	J-2976	922.03	Forest	0.48	1064.93	61.83
5586	J-2977	922.00	Forest	0.48	1064.93	61.84
2620	J-1410	824.09	Lakes	1.24	967.08	61.87
4514	J-2366	908.70	Forest	0.88	1051.76	61.90
7106	J-3863	908.67	Forest	0.08	1051.76	61.91
4513	J-2365	908.64	Forest	0.08	1051.76	61.92
1972	J-1036	918.82	Forest	0.68	1061.94	61.92
6979	J-3791	908.07	Forest	0.48	1051.22	61.93
2216	J-1182	824.00	Lakes	1.06	967.17	61.94
5796	J-3099	919.92	Forest	0.48	1063.11	61.95
3949	J-2141	851.52	Forest	1.68	994.76	61.97
5797	J-3100	919.78	Forest	0.08	1063.11	62.01
2777	J-1502	838.11	Forest	1.08	981.47	62.03
2066	J-1093	921.55	Forest	0.28	1064.97	62.05
6392	J-3447	912.62	Forest	1.28	1056.05	62.05
7137	J-3880	912.43	Forest	0.08	1056.05	62.14
4282	J-2275	849.69	Lakes	0.46	993.37	62.16
2262	J-1209	823.64	Lakes	1.06	967.41	62.20
517	J-292	908.29	Forest	0.08	1052.10	62.22
3508	J-1913	908.03	Forest	0.28	1051.86	62.23
2823	J-1529	908.78	Forest	1.08	1052.66	62.25
2186	J-1164	875.36	Lakes	1.41	1019.32	62.28
8498	J-4202	823.04	Lakes	0.55	967.07	62.32
3735	J-2038	916.66	Forest	1.08	1060.74	62.34
2433	J-1304	844.90	Lakes	0.20	988.98	62.34
3405	J-1852	849.25	Lakes	0.20	993.37	62.35
3945	J-2139	907.02	Forest	0.68	1051.21	62.38
4941	J-2608	907.48	Forest	0.88	1051.75	62.42
1970	J-1035	819.31	Lakes	0.72	963.60	62.42
3855	J-2096	907.46	Forest	0.88	1051.75	62.43
6203	J-3334	907.44	Forest	0.88	1051.78	62.45
5828	J-3117	908.00	Forest	0.08	1052.35	62.45
5843	J-3126	908.55	Forest	0.28	1052.98	62.49

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6611	J-3575	915.97	Forest	0.28	1060.48	62.52
2017	J-1065	878.38	Lakes	0.63	1022.90	62.53
3352	J-1824	836.91	Forest	0.48	981.47	62.54
5452	J-2901	907.15	Forest	0.08	1051.71	62.55
2236	J-1194	848.79	Lakes	0.98	993.42	62.58
602	J-345	908.33	Forest	0.08	1052.98	62.58
5252	J-2786	908.48	Forest	0.28	1053.16	62.60
6982	J-3793	907.42	Forest	0.08	1052.10	62.60
92	J-42	920.25	Forest	0.48	1064.95	62.60
1769	J-905	844.21	Lakes	0.20	988.98	62.64
1488	J-745	908.35	Forest	0.08	1053.16	62.65
4656	J-2447	907.28	Forest	0.08	1052.10	62.66
5829	J-3118	907.52	Forest	0.28	1052.35	62.66
3927	J-2131	906.94	Forest	1.28	1051.79	62.67
3062	J-1650	906.81	Forest	0.08	1051.71	62.69
3065	J-1652	907.18	Forest	0.68	1052.10	62.70
3003	J-1617	920.00	Forest	0.88	1064.92	62.70
6327	J-3408	906.83	Forest	0.68	1051.79	62.72
2695	J-1453	846.15	Lakes	0.63	991.16	62.74
2732	J-1475	907.29	Forest	0.68	1052.34	62.75
6202	J-3333	906.71	Forest	0.68	1051.78	62.76
3064	J-1651	907.02	Forest	0.08	1052.10	62.77
3061	J-1649	906.59	Forest	0.08	1051.71	62.79
6322	J-3405	910.90	Forest	0.08	1056.05	62.80
2360	J-1265	848.21	Lakes	0.72	993.37	62.80
3876	J-2106	906.50	Forest	0.68	1051.74	62.84
3439	J-1872	906.49	Forest	1.08	1051.79	62.87
6559	J-3544	906.58	Forest	2.89	1051.89	62.87
2793	J-1512	910.72	Forest	1.08	1056.05	62.88
5641	J-3009	906.96	Forest	0.48	1052.34	62.90
3351	J-1823	836.00	Forest	1.28	981.47	62.94
4538	J-2379	836.00	Forest	0.68	981.47	62.94
6560	J-3545	906.41	Forest	0.28	1051.89	62.94
7056	J-3835	907.03	Forest	1.28	1052.52	62.95
1729	J-879	821.58	Lakes	0.89	967.13	62.97
559	J-319	908.68	Forest	0.08	1054.34	63.02
3418	J-1860	919.21	Forest	0.48	1064.93	63.04
1941	J-1016	908.10	Forest	0.88	1053.83	63.05
6321	J-3404	910.28	Forest	0.88	1056.05	63.07
3450	J-1878	906.27	Forest	0.48	1052.12	63.10
2217	J-1183	821.31	Lakes	0.46	967.17	63.11
2765	J-1495	906.65	Forest	1.28	1052.52	63.11
4183	J-2242	905.69	Forest	2.29	1051.74	63.19
1695	J-857	908.16	Forest	0.48	1054.24	63.20
2682	J-1445	847.19	Lakes	0.20	993.37	63.24
6671	J-3611	918.64	Forest	0.48	1064.93	63.29
5639	J-3008	908.24	Forest	0.08	1054.67	63.35
3692	J-2014	906.11	Forest	1.48	1052.64	63.40
3864	J-2100	918.21	Forest	0.48	1064.98	63.50
6047	J-3240	914.99	Forest	0.28	1061.88	63.55
5870	J-3141	907.75	Forest	0.48	1054.67	63.56
601	J-344	906.01	Forest	0.68	1052.99	63.59
998	J-546	905.93	Forest	0.68	1052.96	63.62
2270	J-1214	820.00	Lakes	1.06	967.07	63.63
8069	J-4165	904.70	Forest	2.89	1051.81	63.65
5638	J-3007	907.48	Forest	0.48	1054.67	63.68
3464	J-1886	904.49	Forest	0.48	1051.71	63.69
6048	J-3241	914.55	Forest	1.28	1061.88	63.74
5869	J-3140	907.32	Forest	1.08	1054.67	63.75
1574	J-780	906.87	Forest	0.48	1054.32	63.79
2032	J-1074	904.62	Forest	0.68	1052.14	63.83
7946	J-4148	904.74	Forest	0.48	1052.34	63.86
1573	J-779	906.69	Forest	0.08	1054.32	63.88
6029	J-3229	904.45	Forest	0.28	1052.09	63.88
93	J-43	917.28	Forest	0.48	1064.94	63.89
5598	J-2984	904.00	Forest	0.68	1051.74	63.92
5599	J-2985	904.00	Forest	0.88	1051.74	63.92
658	J-379	903.28	Forest	2.09	1051.03	63.92
3114	J-1683	904.00	Forest	0.08	1051.86	63.97
3115	J-1684	904.00	Forest	0.08	1051.86	63.97
5460	J-2906	904.23	Forest	1.48	1052.12	63.98
3929	J-2132	903.75	Forest	1.48	1051.74	64.03
4843	J-2551	904.64	Forest	0.08	1052.64	64.03
5672	J-3028	914.77	Forest	0.88	1062.81	64.05
2951	J-1595	825.47	Lakes	0.55	973.52	64.05
4868	J-2565	914.80	Forest	0.28	1062.85	64.06
5388	J-2866	916.86	Forest	0.08	1064.94	64.07
2711	J-1463	914.77	Forest	0.48	1062.85	64.07
3451	J-1879	904.00	Forest	0.48	1052.12	64.09
81	J-35	916.73	Forest	0.08	1064.93	64.12
3691	J-2013	904.42	Forest	0.68	1052.64	64.13
5671	J-3027	914.52	Forest	0.88	1062.81	64.16
5380	J-2861	908.01	Forest	0.08	1056.31	64.16
5379	J-2860	907.82	Forest	0.88	1056.31	64.25
3438	J-1871	903.23	Forest	0.48	1051.79	64.28
3744	J-2043	916.34	Forest	0.08	1064.98	64.31
5721	J-3056	902.87	Forest	0.48	1051.79	64.43
2293	J-1228	916.04	Forest	0.68	1064.97	64.43
6377	J-3438	904.00	Forest	0.28	1052.99	64.46
7765	J-4110	902.73	Forest	1.48	1051.74	64.47
2248	J-1201	914.12	Forest	0.88	1063.20	64.50
4025	J-2174	903.80	Forest	0.88	1052.96	64.53
76	J-32	906.11	Forest	0.08	1055.29	64.55
2669	J-1437	824.29	Lakes	0.46	973.52	64.57
7938	J-4146	902.54	Forest	1.08	1051.79	64.58
3348	J-1822	839.73	Lakes	0.55	988.98	64.58
3892	J-2114	910.53	Forest	0.88	1059.87	64.61
502	J-282	903.63	Forest	0.08	1052.99	64.62
5193	J-2751	903.59	Forest	0.88	1052.96	64.63

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4276	J-2273	902.69	Forest	1.68	1052.09	64.64
2867	J-1553	832.02	Forest	1.88	981.47	64.66
1639	J-822	824.00	Lakes	0.20	973.48	64.67
1638	J-821	824.00	Lakes	0.20	973.48	64.67
1996	J-1052	1051.60	Fox_Run	0.88	1201.26	64.75
6675	J-3613	905.60	Forest	0.48	1055.29	64.76
7728	J-4101	902.11	Forest	0.28	1051.86	64.79
2273	J-1216	817.64	Lakes	0.72	967.41	64.80
1728	J-878	817.36	Lakes	0.55	967.13	64.80
6771	J-3669	910.09	Forest	1.08	1059.87	64.80
75	J-31	905.47	Forest	0.28	1055.32	64.83
2455	J-1316	823.63	Lakes	0.20	973.48	64.84
1928	J-1007	843.44	Lakes	0.37	993.35	64.86
3588	J-1957	901.89	Forest	0.08	1051.80	64.86
584	J-334	903.07	Forest	0.08	1052.99	64.86
82	J-36	914.89	Forest	0.08	1064.93	64.91
4892	J-2580	903.68	Forest	0.48	1053.82	64.96
2642	J-1422	912.98	Forest	0.88	1063.13	64.96
7092	J-3855	910.96	Forest	0.28	1061.12	64.97
3901	J-2118	831.30	Forest	1.88	981.47	64.97
4891	J-2579	903.43	Forest	0.08	1053.82	65.06
558	J-318	903.89	Forest	0.08	1054.33	65.09
5856	J-3133	903.69	Forest	0.88	1054.15	65.09
335	J-177	914.36	Forest	0.08	1064.93	65.14
2126	J-1126	904.43	Forest	0.48	1055.07	65.18
3347	J-1821	838.31	Lakes	0.72	988.98	65.19
4775	J-2513	914.22	Forest	0.28	1064.93	65.20
2801	J-1516	844.05	Forest	0.88	994.76	65.21
7526	J-4038	914.18	Forest	10.28	1064.93	65.22
2255	J-1205	840.49	Lakes	1.24	991.25	65.22
686	J-395	912.00	Forest	0.08	1062.81	65.25
503	J-283	902.07	Forest	1.08	1052.99	65.30
6134	J-3293	913.94	Forest	0.88	1064.98	65.35
1932	J-1010	815.97	Lakes	0.55	967.07	65.37
7882	J-4138	901.74	Forest	0.68	1052.86	65.38
2556	J-1373	822.33	Lakes	0.20	973.48	65.40
2289	J-1225	816.00	Lakes	0.89	967.17	65.40
3522	J-1920	902.95	Forest	0.48	1054.15	65.42
2797	J-1514	822.26	Lakes	0.89	973.51	65.44
2733	J-1476	901.00	Forest	1.88	1052.34	65.48
6446	J-3478	913.56	Forest	0.48	1064.96	65.50
2854	J-1547	901.41	Forest	1.08	1052.86	65.52
5180	J-2744	902.20	Forest	0.48	1053.70	65.55
7721	J-4098	903.16	Forest	0.88	1054.67	65.55
2343	J-1256	902.18	Forest	0.68	1053.70	65.56
6050	J-3242	901.23	Forest	0.68	1052.86	65.60
2967	J-1600	843.07	Forest	1.48	994.76	65.63
4200	J-2249	902.55	Forest	0.88	1054.24	65.63
3932	J-2134	843.04	Forest	0.68	994.76	65.64
2811	J-1522	900.04	Forest	1.28	1051.79	65.65
7941	J-4147	900.00	Forest	1.48	1051.77	65.66
3587	J-1956	900.00	Forest	1.28	1051.80	65.68
2440	J-1308	821.67	Lakes	0.37	973.48	65.68
4947	J-2611	900.30	Forest	1.28	1052.12	65.68
6375	J-3437	899.92	Forest	0.28	1051.74	65.69
3267	J-1776	908.89	Forest	0.48	1060.74	65.70
7232	J-3926	909.21	Forest	0.28	1061.12	65.72
7701	J-4092	902.62	Forest	0.88	1054.67	65.78
3658	J-1995	912.74	Forest	0.08	1064.96	65.86
1676	J-844	821.24	Lakes	0.20	973.48	65.87
2191	J-1167	903.95	Forest	1.88	1056.20	65.87
1709	J-866	821.23	Lakes	0.20	973.48	65.87
5681	J-3033	908.48	Forest	0.48	1060.74	65.88
2414	J-1292	821.18	Lakes	0.20	973.48	65.89
2415	J-1293	821.16	Lakes	0.20	973.48	65.90
4948	J-2612	899.76	Forest	1.28	1052.12	65.92
8465	J-4184	808.28	Lakes	1.50	960.64	65.92
2263	J-1210	815.03	Lakes	0.63	967.41	65.93
4806	J-2530	899.89	Forest	0.88	1052.30	65.94
196	J-93	907.78	Forest	1.08	1060.23	65.96
2338	J-1253	838.81	Lakes	1.41	991.27	65.96
575	J-329	900.47	Forest	0.08	1052.99	65.99
2431	J-1303	838.73	Lakes	1.58	991.25	65.99
877	J-493	901.62	Forest	0.08	1054.15	65.99
3466	J-1887	912.33	Forest	0.48	1064.88	66.00
6986	J-3795	904.78	Forest	0.48	1057.34	66.00
364	J-196	912.07	Forest	0.08	1064.63	66.01
5333	J-2833	900.42	Forest	0.08	1052.99	66.01
363	J-195	912.03	Forest	0.08	1064.61	66.02
6666	J-3608	908.50	Forest	0.28	1061.12	66.03
1770	J-906	836.31	Lakes	0.55	988.98	66.05
2430	J-1302	838.55	Lakes	0.55	991.25	66.07
2106	J-1113	840.63	Lakes	0.72	993.35	66.07
959	J-528	899.57	Forest	0.08	1052.30	66.08
3890	J-2113	912.16	Forest	0.48	1064.98	66.12
7861	J-4133	901.36	Forest	1.08	1054.25	66.15
6665	J-3607	908.20	Forest	0.08	1061.12	66.16
3919	J-2127	900.24	Forest	1.88	1053.16	66.16
8488	J-4196	901.27	Forest	1.08	1054.20	66.17
2125	J-1125	902.13	Forest	0.08	1055.07	66.17
3782	J-2060	908.97	Forest	0.28	1061.95	66.19
6135	J-3294	912.00	Forest	0.28	1064.98	66.19
6186	J-3323	911.89	Forest	0.68	1064.88	66.19
1489	J-746	900.09	Forest	50.32	1053.11	66.21
3875	J-2105	898.71	Forest	0.88	1051.74	66.21
7062	J-3838	908.89	Forest	0.08	1061.95	66.22
576	J-330	899.87	Forest	0.88	1052.99	66.25
642	J-369	907.96	Forest	0.08	1061.12	66.27
4214	J-2254	911.75	Forest	0.48	1064.95	66.28

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4962	J-2620	841.55	Forest	0.48	994.76	66.29
3313	J-1802	841.54	Forest	0.08	994.76	66.29
2024	J-1069	808.28	Lakes	0.37	961.56	66.32
3911	J-2123	906.52	Forest	0.48	1059.87	66.35
2004	J-1057	840.00	Lakes	0.46	993.38	66.36
4800	J-2527	899.75	Forest	0.08	1053.16	66.37
2625	J-1413	828.00	Forest	1.08	981.47	66.40
5428	J-2888	899.59	Forest	0.08	1053.11	66.42
7724	J-4099	901.12	Forest	1.28	1054.67	66.43
3321	J-1806	911.39	Forest	0.48	1064.94	66.43
5755	J-3076	906.05	Forest	0.88	1059.87	66.55
288	J-148	899.15	Forest	0.68	1052.99	66.56
2853	J-1546	899.02	Forest	1.08	1052.86	66.56
751	J-430	903.44	Forest	0.08	1057.34	66.58
1790	J-918	906.78	Forest	0.08	1060.74	66.61
3380	J-1839	900.24	Forest	0.28	1054.24	66.63
6374	J-3436	897.65	Forest	0.68	1051.74	66.67
3467	J-1888	910.79	Forest	0.08	1064.88	66.67
569	J-325	907.78	Forest	0.68	1061.88	66.67
3574	J-1949	897.15	Forest	0.88	1051.40	66.73
2652	J-1428	827.22	Forest	0.88	981.47	66.74
8487	J-4195	899.91	Forest	1.68	1054.20	66.75
2245	J-1199	836.93	Lakes	0.81	991.24	66.76
287	J-147	898.67	Forest	0.08	1052.99	66.76
2983	J-1608	910.46	Forest	0.48	1064.88	66.81
5385	J-2864	899.80	Forest	0.88	1054.26	66.82
7437	J-4006	906.45	Forest	2.29	1061.12	66.92
3804	J-2071	896.63	Forest	1.08	1051.31	66.93
2799	J-1515	836.51	Lakes	1.24	991.26	66.95
3322	J-1807	910.17	Forest	0.28	1064.94	66.96
4010	J-2168	899.03	Forest	1.68	1053.81	66.97
498	J-280	909.73	Forest	0.08	1064.61	67.01
5390	J-2867	898.05	Forest	0.28	1052.99	67.04
5847	J-3128	909.66	Forest	0.08	1064.61	67.04
5573	J-2970	896.42	Forest	0.88	1051.40	67.05
5386	J-2865	899.27	Forest	0.88	1054.26	67.05
6848	J-3715	909.96	Forest	0.48	1064.95	67.06
2547	J-1367	805.64	Lakes	0.29	960.64	67.06
330	J-174	897.94	Forest	0.68	1052.99	67.08
1986	J-1045	818.29	Lakes	0.37	973.48	67.14
5540	J-2951	896.59	Forest	1.28	1051.78	67.14
4798	J-2526	896.96	Forest	0.28	1052.28	67.20
86	J-38	900.88	Forest	1.28	1056.21	67.20
1712	J-868	818.02	Lakes	0.46	973.48	67.26
5323	J-2827	909.49	Forest	1.28	1064.98	67.27
6506	J-3512	896.25	Forest	0.88	1051.81	67.30
3878	J-2107	896.21	Forest	1.08	1051.78	67.31
1694	J-856	898.64	Forest	0.08	1054.24	67.32
2250	J-1202	837.78	Lakes	0.63	993.43	67.34
636	J-365	896.56	Forest	0.08	1052.28	67.37
2192	J-1168	900.46	Forest	0.88	1056.20	67.38
5322	J-2826	909.20	Forest	0.08	1064.98	67.40
6507	J-3513	896.03	Forest	0.28	1051.81	67.40
2269	J-1213	811.21	Lakes	0.72	967.07	67.43
3856	J-2097	895.86	Forest	1.28	1051.74	67.44
1978	J-1040	909.02	Forest	0.48	1064.96	67.47
5654	J-3017	900.06	Forest	0.48	1056.20	67.55
2914	J-1577	837.08	Lakes	0.89	993.37	67.62
1908	J-994	817.11	Lakes	0.20	973.48	67.65
1677	J-845	817.04	Lakes	0.20	973.48	67.68
6034	J-3232	908.41	Forest	0.28	1064.88	67.69
3535	J-1927	908.40	Forest	0.28	1064.88	67.70
5655	J-3018	899.72	Forest	0.48	1056.20	67.70
2143	J-1137	898.52	Forest	0.68	1055.07	67.73
7082	J-3850	908.06	Forest	0.08	1064.63	67.74
2817	J-1525	906.21	Forest	0.88	1062.79	67.74
919	J-510	908.05	Forest	0.08	1064.63	67.75
1912	J-997	908.26	Forest	1.68	1064.95	67.79
7511	J-4032	896.15	Forest	0.48	1052.86	67.80
1909	J-995	816.68	Lakes	0.55	973.48	67.84
7975	J-4153	894.88	Forest	1.68	1051.79	67.89
1711	J-867	816.55	Lakes	0.81	973.48	67.90
2301	J-1233	834.22	Lakes	0.72	991.18	67.91
5402	J-2874	896.20	Forest	0.48	1053.18	67.92
2762	J-1493	803.66	Lakes	0.37	960.64	67.92
3456	J-1882	907.98	Forest	0.08	1064.98	67.93
808	J-458	895.06	Forest	0.08	1052.11	67.95
6360	J-3428	905.73	Forest	1.28	1062.79	67.95
5838	J-3123	902.80	Forest	0.08	1059.87	67.96
87	J-39	899.07	Forest	1.48	1056.17	67.97
5401	J-2873	896.04	Forest	0.68	1053.18	67.98
129	J-63	907.81	Forest	0.48	1064.98	68.00
2503	J-1343	907.75	Forest	0.28	1064.94	68.01
3303	J-1797	903.54	Forest	0.48	1060.74	68.01
2990	J-1612	907.75	Forest	0.88	1064.96	68.02
104	J-50	902.63	Forest	0.48	1059.87	68.03
4193	J-2247	894.41	Forest	1.88	1051.74	68.07
844	J-476	904.67	Forest	0.48	1062.04	68.09
2653	J-1429	824.00	Forest	0.88	981.47	68.13
7510	J-4031	895.33	Forest	0.08	1052.86	68.16
7505	J-4029	894.50	Forest	4.32	1052.11	68.19
4568	J-2397	904.36	Forest	0.28	1062.04	68.22
3573	J-1948	893.68	Forest	0.48	1051.39	68.24
7219	J-3920	898.33	Forest	0.08	1056.11	68.26
5032	J-2661	907.15	Forest	0.68	1064.97	68.28
2848	J-1543	905.19	Forest	0.68	1063.05	68.30
4432	J-2322	910.95	Lakes	1.15	1068.85	68.32
2298	J-1231	833.28	Lakes	0.89	991.26	68.35
2131	J-1129	898.03	Forest	0.68	1056.05	68.37

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7218	J-3919	898.05	Forest	0.48	1056.11	68.38
2544	J-1365	802.55	Lakes	0.29	960.64	68.40
1879	J-976	896.14	Forest	0.48	1054.25	68.41
643	J-370	902.72	Forest	0.28	1061.12	68.53
2189	J-1166	895.75	Forest	0.08	1054.24	68.57
6306	J-3396	898.84	Forest	0.08	1057.34	68.58
5033	J-2662	906.44	Forest	1.08	1064.97	68.59
1893	J-985	830.42	Lakes	0.63	988.98	68.60
1956	J-1026	834.75	Lakes	0.37	993.34	68.61
6305	J-3395	898.74	Forest	0.28	1057.34	68.62
2957	J-1597	814.88	Lakes	2.80	973.48	68.62
637	J-366	893.67	Forest	0.28	1052.27	68.62
2129	J-1128	832.34	Lakes	0.55	991.18	68.72
2712	J-1464	904.00	Forest	0.68	1062.85	68.73
6253	J-3365	899.62	Forest	0.48	1058.47	68.73
2502	J-1342	906.08	Forest	0.08	1064.94	68.73
7911	J-4144	893.09	Forest	0.88	1052.12	68.81
2128	J-1127	832.16	Lakes	0.72	991.19	68.81
570	J-326	902.75	Forest	0.68	1061.84	68.83
1296	J-673	899.20	Forest	0.68	1058.47	68.91
72	J-29	900.56	Forest	0.08	1059.87	68.92
2981	J-1607	834.05	Lakes	0.63	993.38	68.94
2161	J-1148	891.86	Forest	1.28	1051.23	68.95
2999	J-1616	831.85	Lakes	3.32	991.25	68.96
7111	J-3866	896.52	Forest	0.08	1056.06	69.02
7006	J-3807	897.38	Forest	1.08	1056.92	69.02
2333	J-1251	833.87	Lakes	0.89	993.41	69.03
143	J-70	899.97	Forest	0.48	1059.53	69.04
1931	J-1009	807.47	Lakes	0.37	967.07	69.05
4459	J-2334	896.44	Forest	0.28	1056.06	69.06
4458	J-2333	896.43	Forest	0.08	1056.06	69.06
7007	J-3808	897.26	Forest	0.88	1056.92	69.08
5372	J-2856	893.39	Forest	0.88	1053.09	69.09
7456	J-4012	896.33	Forest	0.28	1056.06	69.11
7141	J-3882	896.25	Forest	0.28	1056.06	69.14
7188	J-3904	905.00	Forest	0.08	1064.93	69.19
2548	J-1368	800.64	Lakes	0.29	960.64	69.22
5371	J-2855	893.08	Forest	0.48	1053.09	69.23
746	J-427	897.31	Forest	0.08	1057.34	69.24
5470	J-2912	891.68	Forest	0.88	1051.72	69.24
4804	J-2529	901.80	Forest	0.08	1061.84	69.24
3647	J-1989	904.83	Forest	0.88	1064.96	69.28
1423	J-711	892.62	Forest	0.08	1052.79	69.30
6292	J-3387	895.94	Forest	1.68	1056.20	69.34
5988	J-3206	892.00	Forest	0.08	1052.36	69.38
5989	J-3207	892.00	Forest	0.88	1052.36	69.38
7612	J-4066	892.68	Forest	0.68	1053.05	69.38
3631	J-1980	890.98	Forest	1.28	1051.36	69.39
2290	J-1226	806.73	Lakes	0.55	967.17	69.41
2802	J-1517	834.29	Forest	1.88	994.76	69.43
1955	J-1025	832.85	Lakes	0.37	993.34	69.44
5404	J-2875	892.28	Forest	0.28	1052.79	69.45
3292	J-1791	892.51	Forest	0.88	1053.06	69.46
1987	J-1046	812.88	Lakes	0.55	973.47	69.48
7774	J-4113	834.14	Forest	0.28	994.76	69.49
3293	J-1792	892.43	Forest	0.08	1053.06	69.49
2468	J-1324	800.00	Lakes	0.29	960.64	69.50
2469	J-1325	800.00	Lakes	0.20	960.64	69.50
2505	J-1344	800.00	Lakes	0.20	960.64	69.50
3924	J-2129	891.06	Forest	0.88	1051.72	69.51
2313	J-1240	892.98	Forest	1.28	1053.70	69.54
7213	J-3916	891.00	Forest	0.28	1051.73	69.54
3884	J-2110	893.19	Forest	1.08	1053.99	69.57
6293	J-3388	895.35	Forest	1.28	1056.20	69.59
4818	J-2536	891.46	Forest	0.08	1052.32	69.60
6893	J-3742	891.20	Forest	0.08	1052.06	69.60
6903	J-3748	899.86	Forest	0.08	1060.74	69.61
1165	J-612	892.00	Forest	0.08	1052.99	69.65
6137	J-3295	892.00	Forest	0.88	1052.99	69.65
5120	J-2710	892.06	Forest	0.08	1053.07	69.66
5466	J-2910	903.91	Forest	0.68	1064.93	69.67
3980	J-2154	890.68	Forest	0.48	1051.73	69.68
7288	J-3951	895.74	Forest	1.08	1056.92	69.74
478	J-268	891.11	Forest	0.08	1052.32	69.75
7289	J-3952	895.71	Forest	0.48	1056.92	69.75
2227	J-1189	805.85	Lakes	0.20	967.07	69.75
2887	J-1564	903.69	Forest	0.88	1064.94	69.76
2890	J-1566	892.23	Forest	0.88	1053.48	69.77
5891	J-3152	897.50	Forest	0.08	1058.78	69.78
4349	J-2295	890.74	Forest	1.08	1052.09	69.81
5465	J-2909	903.56	Forest	0.68	1064.93	69.82
6892	J-3741	890.53	Forest	2.09	1052.06	69.89
5421	J-2884	903.32	Forest	0.08	1064.94	69.93
6481	J-3498	890.37	Forest	1.08	1052.09	69.97
5121	J-2711	891.34	Forest	0.28	1053.07	69.97
2213	J-1180	831.62	Lakes	0.72	993.42	70.00
6680	J-3616	894.87	Forest	0.08	1056.76	70.04
2374	J-1274	903.01	Forest	0.28	1064.94	70.06
3649	J-1990	832.49	Forest	0.28	994.76	70.21
4950	J-2613	900.15	Forest	1.08	1062.43	70.21
1523	J-759	896.50	Forest	0.08	1058.78	70.21
3517	J-1918	890.34	Forest	0.88	1052.64	70.22
319	J-167	889.88	Forest	0.08	1052.32	70.28
1355	J-688	894.19	Forest	0.08	1056.76	70.34
3683	J-2008	897.29	Forest	0.68	1059.86	70.34
1035	J-562	899.83	Forest	0.08	1062.43	70.35
6941	J-3770	900.88	Forest	0.08	1063.48	70.35
2187	J-1165	856.69	Lakes	0.72	1019.31	70.36
6974	J-3788	901.99	Forest	0.08	1064.63	70.37

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4227	J-2258	899.88	Forest	0.08	1062.55	70.38
2764	J-1494	889.85	Forest	0.68	1052.52	70.38
73	J-30	897.18	Forest	0.28	1059.87	70.39
3301	J-1796	898.02	Forest	0.48	1060.74	70.40
6460	J-3486	889.31	Forest	0.68	1052.03	70.40
2132	J-1130	893.30	Forest	0.88	1056.05	70.42
753	J-431	889.34	Forest	0.08	1052.12	70.43
4261	J-2268	900.35	Forest	0.08	1063.13	70.43
3235	J-1756	889.22	Forest	2.09	1052.03	70.44
318	J-166	889.49	Forest	0.28	1052.32	70.45
5430	J-2889	889.78	Forest	0.48	1052.64	70.46
5082	J-2690	889.22	Forest	0.48	1052.12	70.48
1139	J-602	900.49	Forest	0.08	1063.48	70.52
7622	J-4070	889.82	Forest	0.28	1052.86	70.54
8536	J-4218	911.94	Forest	0.08	1075.00	70.55
7463	J-4015	889.76	Forest	0.88	1052.86	70.56
8483	J-4193	889.17	Forest	0.48	1052.27	70.57
1422	J-710	889.68	Forest	0.08	1052.80	70.57
3407	J-1853	901.82	Forest	0.08	1064.98	70.59
265	J-133	901.42	Forest	0.08	1064.63	70.62
3935	J-2135	899.33	Forest	0.08	1062.55	70.62
5700	J-3044	889.13	Forest	0.48	1052.36	70.62
264	J-132	901.30	Forest	0.08	1064.63	70.67
1791	J-919	897.35	Forest	0.88	1060.74	70.69
3234	J-1755	888.49	Forest	0.08	1052.03	70.75
3024	J-1626	889.38	Forest	3.69	1052.92	70.76
3436	J-1870	817.90	Forest	1.88	981.47	70.77
6908	J-3751	893.75	Forest	0.88	1057.33	70.78
7852	J-4131	888.00	Forest	0.68	1051.80	70.87
7038	J-3825	901.12	Forest	0.08	1064.94	70.88
1208	J-633	893.48	Forest	0.28	1057.33	70.89
6215	J-3341	889.01	Forest	1.68	1052.86	70.89
8467	J-4185	796.75	Lakes	0.20	960.64	70.91
5699	J-3043	888.42	Forest	0.08	1052.36	70.93
103	J-49	895.74	Forest	1.28	1059.87	71.01
1876	J-974	896.60	Forest	0.48	1060.74	71.02
3926	J-2130	887.55	Forest	0.88	1051.79	71.06
6950	J-3775	888.34	Forest	0.08	1052.64	71.09
5767	J-3083	891.73	Forest	0.28	1056.17	71.14
5108	J-2704	889.81	Forest	0.48	1054.25	71.15
3039	J-1635	817.00	Forest	0.28	981.47	71.16
3038	J-1634	816.93	Forest	0.08	981.47	71.19
6216	J-3342	888.29	Forest	0.08	1052.86	71.20
3784	J-2061	900.39	Forest	0.68	1064.98	71.21
490	J-275	887.51	Forest	0.08	1052.13	71.22
2545	J-1366	796.00	Lakes	0.20	960.64	71.23
3952	J-2142	891.49	Forest	1.08	1056.17	71.25
747	J-428	892.64	Forest	0.28	1057.34	71.26
1159	J-610	888.00	Forest	0.48	1052.71	71.26
194	J-92	896.00	Forest	0.08	1060.74	71.28
3287	J-1788	895.93	Forest	0.08	1060.74	71.31
203	J-94	892.00	Forest	1.28	1056.83	71.31
7397	J-3992	887.93	Forest	9.60	1052.80	71.33
3539	J-1929	887.93	Forest	0.08	1052.80	71.33
489	J-274	887.22	Forest	0.48	1052.13	71.35
1495	J-748	888.00	Forest	0.08	1053.06	71.41
6782	J-3676	887.54	Forest	0.08	1052.71	71.46
373	J-202	1053.81	Lakes	0.20	1219.00	71.47
2570	J-1380	816.24	Forest	0.08	981.47	71.49
4196	J-2248	887.40	Forest	0.28	1052.64	71.49
4263	J-2269	890.92	Forest	0.28	1056.17	71.50
2202	J-1174	828.07	Lakes	0.37	993.37	71.52
693	J-399	1053.69	Lakes	0.20	1219.00	71.52
1470	J-737	887.57	Forest	0.28	1052.88	71.53
1992	J-1049	828.00	Lakes	0.46	993.32	71.53
2117	J-1120	828.00	Lakes	0.55	993.32	71.53
7671	J-4084	890.86	Forest	2.49	1056.20	71.53
406	J-223	899.27	Forest	0.08	1064.61	71.54
372	J-201	1053.63	Lakes	0.20	1219.00	71.55
6984	J-3794	816.09	Forest	0.68	981.47	71.55
5581	J-2974	895.36	Forest	1.28	1060.74	71.55
5065	J-2681	816.08	Forest	2.09	981.48	71.56
3552	J-1936	816.07	Forest	0.28	981.48	71.56
1976	J-1039	801.63	Lakes	0.46	967.07	71.58
3319	J-1805	895.28	Forest	0.08	1060.74	71.59
2020	J-1067	857.41	Lakes	0.72	1022.90	71.60
1896	J-987	885.68	Forest	2.09	1051.17	71.60
4494	J-2354	815.94	Forest	0.08	981.47	71.62
407	J-224	899.06	Forest	0.08	1064.61	71.63
5189	J-2749	887.32	Forest	0.08	1052.88	71.63
4808	J-2531	899.03	Forest	0.08	1064.61	71.64
3630	J-1979	885.66	Forest	0.88	1051.35	71.69
5949	J-3185	1053.25	Lakes	0.20	1219.00	71.71
1914	J-998	888.46	Forest	1.28	1054.25	71.73
4980	J-2630	887.00	Forest	0.08	1052.80	71.73
3111	J-1681	887.00	Forest	0.08	1052.80	71.73
6802	J-3688	885.91	Forest	1.88	1051.74	71.75
6160	J-3308	886.26	Forest	1.28	1052.12	71.76
5745	J-3070	887.12	Forest	0.08	1052.99	71.76
5299	J-2812	887.16	Forest	0.08	1053.03	71.77
3112	J-1682	886.89	Forest	0.08	1052.80	71.78
7986	J-4156	889.39	Forest	2.09	1055.31	71.78
3252	J-1767	887.01	Forest	0.68	1053.03	71.83
3697	J-2017	891.55	Forest	0.08	1057.60	71.84
6161	J-3309	886.03	Forest	0.88	1052.12	71.86
5300	J-2813	886.93	Forest	1.28	1053.03	71.87
2160	J-1147	885.11	Forest	0.88	1051.23	71.88
5746	J-3071	886.85	Forest	0.08	1052.99	71.88
250	J-123	886.84	Forest	0.48	1053.02	71.90

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2851	J-1545	896.81	Forest	0.68	1063.05	71.93
2665	J-1435	885.66	Forest	1.08	1051.96	71.95
5060	J-2678	886.49	Forest	0.08	1052.80	71.95
6095	J-3270	892.50	Forest	0.08	1058.82	71.96
249	J-122	886.68	Forest	0.08	1053.02	71.96
3408	J-1854	898.62	Forest	0.28	1064.98	71.98
3251	J-1766	886.59	Forest	0.68	1053.03	72.01
3476	J-1894	886.20	Forest	0.48	1052.64	72.01
6210	J-3338	892.23	Forest	0.28	1058.74	72.04
5714	J-3052	884.85	Forest	0.08	1051.35	72.04
1673	J-842	826.77	Lakes	0.46	993.42	72.10
2325	J-1247	824.50	Lakes	0.55	991.22	72.13
3108	J-1679	886.03	Forest	0.08	1052.80	72.15
1163	J-611	886.18	Forest	0.48	1052.99	72.17
1868	J-969	898.08	Forest	1.28	1064.92	72.18
1895	J-986	884.36	Forest	0.08	1051.21	72.19
1522	J-758	891.87	Forest	0.28	1058.74	72.20
3109	J-1680	885.93	Forest	0.08	1052.80	72.20
6192	J-3327	885.99	Forest	0.48	1052.86	72.20
5051	J-2673	886.12	Forest	0.28	1052.99	72.20
6956	J-3778	898.10	Forest	0.68	1064.98	72.20
5210	J-2760	886.13	Forest	0.28	1053.02	72.21
6191	J-3326	885.96	Forest	0.08	1052.86	72.21
6504	J-3511	885.74	Forest	0.68	1052.64	72.21
4439	J-2324	886.03	Forest	0.88	1052.99	72.24
3023	J-1625	886.00	Forest	3.89	1052.99	72.25
2097	J-1107	824.22	Lakes	0.72	991.24	72.26
1975	J-1038	800.00	Lakes	0.20	967.07	72.28
4573	J-2400	885.86	Forest	1.08	1052.99	72.31
3930	J-2133	884.57	Forest	1.28	1051.73	72.32
2151	J-1142	814.29	Forest	0.28	981.47	72.33
6939	J-3769	886.77	Forest	0.88	1053.99	72.35
1505	J-750	891.56	Forest	0.08	1058.82	72.37
6442	J-3476	884.43	Forest	0.68	1051.76	72.40
1925	J-1005	894.61	Forest	0.68	1061.95	72.40
7329	J-3966	885.64	Forest	0.88	1052.99	72.41
4267	J-2270	884.34	Forest	1.08	1051.74	72.42
1185	J-620	907.56	Forest	0.08	1075.00	72.44
8504	J-4205	897.51	Forest	0.28	1064.98	72.46
2278	J-1219	825.91	Lakes	0.72	993.42	72.48
126	J-61	894.24	Forest	0.48	1061.76	72.48
5472	J-2913	892.34	Forest	0.08	1059.86	72.48
2234	J-1193	885.06	Forest	0.48	1052.64	72.50
4027	J-2175	884.52	Forest	1.08	1052.12	72.51
2694	J-1452	823.48	Lakes	0.37	991.16	72.54
3458	J-1883	892.14	Forest	0.08	1059.86	72.57
6767	J-3667	884.31	Forest	0.48	1052.09	72.59
1929	J-1008	825.55	Lakes	0.29	993.34	72.60
3083	J-1663	897.10	Forest	1.08	1064.98	72.63
6288	J-3385	893.85	Forest	0.08	1061.76	72.65
2027	J-1071	823.18	Lakes	0.55	991.15	72.67
393	J-215	886.58	Forest	0.48	1054.67	72.73
2005	J-1058	825.25	Lakes	0.72	993.37	72.74
8534	J-4217	906.87	Forest	0.08	1075.00	72.74
3084	J-1664	896.70	Forest	0.08	1064.98	72.81
3885	J-2111	885.71	Forest	0.48	1053.99	72.81
302	J-156	883.74	Forest	0.28	1052.03	72.81
1206	J-632	888.31	Forest	0.88	1056.76	72.88
3596	J-1962	884.47	Forest	1.28	1052.96	72.89
5354	J-2845	886.18	Forest	0.28	1054.67	72.90
398	J-218	888.85	Forest	0.48	1057.42	72.93
2220	J-1185	824.79	Lakes	0.89	993.42	72.96
6531	J-3527	887.53	Forest	0.48	1056.20	72.98
4188	J-2245	882.61	Forest	1.48	1051.28	72.98
392	J-214	885.98	Forest	0.08	1054.67	72.99
3850	J-2094	884.00	Forest	0.08	1052.74	73.00
2868	J-1554	812.71	Forest	1.28	981.48	73.02
279	J-142	883.49	Forest	0.28	1052.27	73.02
907	J-507	883.47	Forest	0.08	1052.26	73.03
5734	J-3064	883.94	Forest	0.28	1052.74	73.03
4120	J-2216	882.95	Forest	0.88	1051.76	73.04
1228	J-642	887.92	Forest	0.08	1056.74	73.04
397	J-217	888.54	Forest	0.28	1057.42	73.06
6553	J-3540	883.24	Forest	1.68	1052.12	73.06
3551	J-1935	812.56	Forest	0.88	981.48	73.08
1066	J-576	896.00	Forest	0.08	1064.93	73.09
7241	J-3930	896.00	Forest	0.88	1064.93	73.09
5099	J-2699	884.00	Forest	0.48	1052.93	73.09
278	J-141	883.34	Forest	0.68	1052.27	73.09
3898	J-2117	884.00	Forest	1.08	1052.96	73.10
3475	J-1893	883.66	Forest	0.28	1052.64	73.11
4836	J-2547	883.21	Forest	0.08	1052.26	73.14
6864	J-3724	887.69	Forest	0.28	1056.76	73.15
1492	J-747	883.84	Forest	0.88	1052.93	73.16
5232	J-2774	887.61	Forest	0.08	1056.74	73.18
6554	J-3541	882.92	Forest	0.28	1052.12	73.21
884	J-497	883.13	Forest	0.88	1052.34	73.21
1801	J-925	812.19	Forest	0.48	981.47	73.24
6078	J-3260	891.83	Forest	0.08	1061.12	73.24
667	J-385	891.81	Forest	0.48	1061.12	73.25
4268	J-2271	882.42	Forest	1.68	1051.74	73.26
3359	J-1828	882.74	Forest	0.48	1052.09	73.27
4640	J-2439	812.09	Forest	0.48	981.48	73.29
3733	J-2037	812.06	Forest	1.08	981.47	73.29
3360	J-1829	882.50	Forest	0.68	1052.09	73.37
3510	J-1914	811.88	Forest	0.48	981.48	73.37
301	J-155	882.42	Forest	0.08	1052.03	73.38
4670	J-2455	883.38	Forest	0.08	1053.02	73.39
7235	J-3928	883.90	Forest	0.08	1053.58	73.41

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1734	J-882	821.35	Lakes	0.46	991.15	73.47
6530	J-3526	886.39	Forest	0.48	1056.20	73.47
432	J-240	884.82	Forest	0.48	1054.67	73.49
7448	J-4008	882.26	Forest	1.68	1052.12	73.49
4915	J-2592	882.37	Forest	0.88	1052.24	73.49
4916	J-2593	882.36	Forest	0.28	1052.24	73.50
1425	J-712	883.14	Forest	0.88	1053.02	73.50
3511	J-1915	811.57	Forest	0.48	981.48	73.51
7784	J-4116	887.32	Forest	0.28	1057.28	73.53
475	J-266	892.56	Forest	0.68	1062.55	73.55
1441	J-722	882.74	Forest	0.08	1052.84	73.59
3561	J-1942	894.86	Forest	0.48	1064.98	73.60
5997	J-3211	882.05	Forest	0.68	1052.25	73.64
2012	J-1062	823.11	Lakes	0.89	993.34	73.65
1938	J-1014	823.03	Lakes	0.72	993.32	73.67
5080	J-2689	882.54	Forest	0.08	1052.84	73.68
2175	J-1157	889.54	Forest	0.48	1059.86	73.69
1026	J-558	882.61	Forest	0.08	1053.01	73.72
2738	J-1479	882.12	Forest	3.09	1052.54	73.73
7234	J-3927	883.15	Forest	0.28	1053.58	73.73
1046	J-568	881.73	Forest	1.08	1052.17	73.74
4623	J-2429	882.56	Forest	0.08	1053.06	73.77
5532	J-2947	894.40	Forest	0.08	1064.93	73.78
6240	J-3357	881.59	Forest	0.48	1052.12	73.78
1408	J-702	882.43	Forest	0.68	1053.01	73.80
3981	J-2155	881.14	Forest	1.08	1051.73	73.81
3772	J-2056	880.58	Forest	2.29	1051.31	73.87
895	J-502	894.18	Forest	0.08	1064.93	73.88
3424	J-1863	894.14	Forest	0.28	1064.98	73.92
476	J-267	891.71	Forest	0.88	1062.56	73.92
2987	J-1610	882.10	Forest	1.08	1052.99	73.93
6148	J-3301	894.04	Forest	0.48	1064.96	73.95
3537	J-1928	882.13	Forest	0.28	1053.06	73.95
7497	J-4027	881.93	Forest	0.88	1052.86	73.95
6239	J-3356	881.18	Forest	0.48	1052.12	73.96
8527	J-4215	851.94	Lakes	0.72	1022.90	73.97
5335	J-2834	891.58	Forest	0.08	1062.56	73.97
2311	J-1239	881.63	Forest	1.48	1052.64	73.99
1735	J-883	820.14	Lakes	0.29	991.15	73.99
1999	J-1054	822.34	Lakes	0.55	993.37	73.99
2214	J-1181	822.35	Lakes	0.72	993.42	74.01
3699	J-2018	893.82	Forest	0.08	1064.96	74.04
2375	J-1275	893.74	Forest	0.48	1064.94	74.07
6589	J-3562	880.84	Forest	0.08	1052.17	74.13
1802	J-926	810.12	Forest	0.28	981.47	74.14
608	J-348	882.85	Forest	0.08	1054.27	74.16
3896	J-2116	893.44	Forest	0.88	1064.93	74.20
6989	J-3797	882.09	Forest	0.68	1053.61	74.21
1674	J-843	821.89	Lakes	0.20	993.42	74.21
6780	J-3675	880.20	Forest	1.88	1051.73	74.22
8517	J-4210	880.47	Forest	0.48	1052.07	74.24
2490	J-1336	881.41	Forest	3.88	1053.01	74.24
7094	J-3856	885.72	Forest	0.88	1057.34	74.25
7343	J-3972	885.23	Forest	0.08	1056.92	74.28
6814	J-3695	886.93	Forest	0.28	1058.69	74.31
6153	J-3304	879.93	Forest	0.68	1051.76	74.34
7342	J-3971	885.01	Forest	0.08	1056.92	74.38
4953	J-2615	879.18	Forest	0.08	1051.10	74.38
6779	J-3674	879.75	Forest	0.08	1051.73	74.41
5208	J-2759	892.93	Forest	0.88	1064.93	74.42
4579	J-2404	880.06	Forest	1.08	1052.06	74.42
4578	J-2403	879.98	Forest	0.68	1052.06	74.45
5016	J-2651	879.87	Forest	0.08	1052.03	74.49
5338	J-2836	883.13	Forest	0.48	1055.31	74.49
894	J-501	892.66	Forest	0.48	1064.93	74.53
6988	J-3796	881.34	Forest	2.09	1053.61	74.53
897	J-503	879.94	Forest	0.28	1052.25	74.55
1915	J-999	881.88	Forest	0.68	1054.24	74.57
995	J-545	879.87	Forest	0.48	1052.31	74.61
3754	J-2048	879.31	Forest	1.28	1051.76	74.61
127	J-62	889.19	Forest	1.28	1061.63	74.61
1526	J-760	886.24	Forest	0.08	1058.69	74.61
580	J-332	879.58	Forest	0.08	1052.03	74.61
3073	J-1657	892.47	Forest	1.28	1064.93	74.62
1619	J-809	878.81	Forest	0.68	1051.39	74.67
3076	J-1659	892.28	Forest	0.08	1064.93	74.70
5791	J-3096	879.65	Forest	1.48	1052.31	74.70
5337	J-2835	882.63	Forest	0.88	1055.31	74.71
3074	J-1658	892.22	Forest	1.08	1064.93	74.72
6026	J-3227	884.19	Forest	0.28	1056.92	74.73
542	J-308	892.19	Forest	0.48	1064.94	74.74
1979	J-1041	892.15	Forest	0.68	1064.95	74.76
1440	J-721	880.02	Forest	0.08	1052.85	74.78
1616	J-807	878.36	Forest	0.88	1051.36	74.85
6027	J-3228	883.84	Forest	0.48	1056.92	74.89
6044	J-3238	891.72	Forest	0.68	1064.94	74.95
7029	J-3820	885.28	Forest	0.48	1058.52	74.95
6213	J-3340	879.54	Forest	1.08	1052.87	74.99
2219	J-1184	820.03	Lakes	0.72	993.41	75.01
6572	J-3552	880.00	Forest	0.08	1053.48	75.06
6573	J-3553	880.00	Forest	1.68	1053.48	75.06
3152	J-1706	888.68	Forest	0.28	1062.17	75.06
4952	J-2614	877.59	Forest	1.28	1051.10	75.07
4586	J-2408	879.46	Forest	0.48	1052.97	75.07
2940	J-1589	849.34	Lakes	0.81	1022.90	75.09
3786	J-2062	878.18	Forest	0.28	1051.77	75.10
1620	J-810	877.76	Forest	0.08	1051.39	75.12
50	J-15	881.44	Forest	0.08	1055.07	75.12
1779	J-911	877.56	Forest	0.48	1051.21	75.13

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5496	J-2926	891.31	Forest	0.28	1064.97	75.13
1780	J-912	877.46	Forest	1.68	1051.19	75.17
6212	J-3339	879.10	Forest	0.88	1052.87	75.18
1480	J-742	879.15	Forest	0.48	1052.97	75.20
6045	J-3239	891.10	Forest	0.28	1064.94	75.21
453	J-253	888.32	Forest	0.28	1062.17	75.22
6550	J-3538	877.76	Forest	1.68	1051.76	75.28
343	J-182	883.32	Forest	0.08	1057.34	75.29
344	J-183	883.23	Forest	0.08	1057.34	75.33
2292	J-1227	890.85	Forest	0.28	1064.97	75.33
95	J-44	884.30	Forest	1.08	1058.52	75.38
3597	J-1963	878.70	Forest	0.68	1052.96	75.39
607	J-347	879.98	Forest	0.28	1054.25	75.40
4761	J-2505	878.62	Forest	0.48	1052.96	75.43
6551	J-3539	877.40	Forest	0.68	1051.76	75.44
2616	J-1407	878.13	Forest	0.48	1052.54	75.46
1920	J-1002	879.73	Forest	0.48	1054.24	75.50
5663	J-3023	878.47	Forest	1.08	1052.98	75.50
1617	J-808	876.74	Forest	0.68	1051.36	75.55
51	J-16	880.42	Forest	0.08	1055.08	75.57
2818	J-1526	888.12	Forest	0.68	1062.79	75.57
4747	J-2498	890.19	Forest	1.08	1064.93	75.60
4168	J-2237	820.00	Forest	1.48	994.76	75.61
2240	J-1196	877.37	Forest	0.48	1052.13	75.61
3652	J-1992	876.95	Forest	0.48	1051.76	75.64
4019	J-2171	890.09	Forest	0.88	1064.93	75.65
4880	J-2572	878.00	Forest	0.08	1052.85	75.65
4879	J-2571	877.98	Forest	0.08	1052.85	75.66
6355	J-3425	884.86	Forest	0.28	1059.76	75.67
7237	J-3929	878.08	Forest	0.68	1053.01	75.68
5617	J-2995	884.59	Forest	0.88	1059.58	75.71
4230	J-2259	884.76	Forest	1.68	1059.76	75.71
3164	J-1713	876.20	Forest	0.08	1051.21	75.72
4782	J-2517	876.12	Forest	0.48	1051.21	75.75
4909	J-2589	876.64	Forest	0.68	1051.76	75.77
6637	J-3591	883.69	Forest	0.08	1058.85	75.78
4246	J-2263	877.31	Forest	1.08	1052.72	75.89
6356	J-3426	884.35	Forest	0.68	1059.76	75.89
472	J-264	877.56	Forest	0.08	1053.01	75.91
2678	J-1443	878.46	Forest	1.28	1053.92	75.91
3279	J-1784	876.90	Forest	0.28	1052.37	75.92
5072	J-2685	886.70	Forest	0.08	1062.19	75.93
6859	J-3721	877.49	Forest	0.08	1052.99	75.93
5418	J-2882	877.88	Forest	0.68	1053.38	75.93
5634	J-3005	879.55	Forest	0.08	1055.08	75.95
452	J-252	886.58	Forest	0.48	1062.19	75.98
5408	J-2877	877.09	Forest	0.68	1052.72	75.99
6635	J-3590	875.67	Forest	0.28	1051.31	75.99
5236	J-2776	877.61	Forest	0.88	1053.28	76.00
561	J-320	876.52	Forest	0.08	1052.19	76.00
3753	J-2047	876.00	Forest	1.08	1051.76	76.04
5536	J-2949	877.91	Forest	0.28	1053.70	76.06
4190	J-2246	883.71	Forest	1.68	1059.58	76.09
1506	J-751	882.96	Forest	0.08	1058.85	76.10
1873	J-972	846.90	Lakes	1.34	1022.87	76.13
5419	J-2883	877.41	Forest	0.48	1053.38	76.14
5780	J-3090	888.87	Forest	0.08	1064.91	76.17
5237	J-2777	877.21	Forest	0.68	1053.28	76.18
4999	J-2642	886.74	Forest	0.48	1062.81	76.18
285	J-146	876.08	Forest	0.08	1052.20	76.20
5781	J-3091	888.79	Forest	0.08	1064.91	76.20
284	J-145	876.06	Forest	0.08	1052.20	76.21
1474	J-739	876.17	Forest	0.08	1052.35	76.22
3810	J-2074	877.51	Forest	1.28	1053.70	76.23
4998	J-2641	886.61	Forest	0.48	1062.81	76.23
3943	J-2138	888.71	Forest	1.28	1064.94	76.25
3765	J-2052	881.09	Forest	0.48	1057.34	76.26
4642	J-2440	875.76	Forest	0.08	1052.06	76.28
3278	J-1783	876.05	Forest	0.48	1052.37	76.28
7617	J-4068	878.99	Forest	0.48	1055.31	76.28
3276	J-1782	874.99	Forest	0.48	1051.31	76.29
3795	J-2067	876.64	Forest	0.88	1052.98	76.29
3131	J-1693	877.86	Forest	0.48	1054.24	76.31
473	J-265	876.56	Forest	0.28	1053.01	76.34
1963	J-1030	877.79	Forest	0.08	1054.24	76.34
3401	J-1850	888.51	Forest	0.48	1064.97	76.34
1898	J-988	874.78	Forest	2.09	1051.25	76.35
6497	J-3507	875.69	Forest	0.08	1052.19	76.37
7900	J-4141	878.80	Forest	0.88	1055.31	76.37
4866	J-2564	875.16	Forest	0.48	1051.73	76.39
4589	J-2410	875.43	Forest	0.08	1052.00	76.39
5555	J-2959	880.18	Forest	1.28	1056.76	76.40
744	J-426	875.48	Forest	0.08	1052.06	76.40
5490	J-2923	875.74	Forest	0.68	1052.35	76.41
5167	J-2737	875.92	Forest	0.08	1052.54	76.42
5168	J-2738	875.87	Forest	0.08	1052.54	76.44
4588	J-2409	875.33	Forest	0.48	1052.00	76.44
3156	J-1708	875.02	Forest	0.08	1051.73	76.45
1460	J-732	876.00	Forest	0.08	1052.74	76.47
950	J-524	875.21	Forest	0.28	1051.96	76.47
1146	J-606	880.00	Forest	0.48	1056.76	76.48
3157	J-1709	874.97	Forest	0.68	1051.73	76.48
7376	J-3983	876.06	Forest	0.48	1052.85	76.49
6427	J-3467	888.10	Forest	0.08	1064.98	76.53
5538	J-2950	876.91	Forest	0.48	1053.81	76.53
4392	J-2310	885.88	Forest	1.48	1062.81	76.55
1984	J-1044	888.00	Forest	0.08	1064.93	76.55
3399	J-1849	888.00	Forest	0.48	1064.93	76.55
4960	J-2619	888.00	Forest	0.48	1064.93	76.55

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
543	J-309	888.00	Forest	0.08	1064.94	76.55
5463	J-2908	887.95	Forest	1.68	1064.93	76.57
6255	J-3366	876.00	Forest	0.68	1053.00	76.58
6256	J-3367	876.00	Forest	0.28	1053.00	76.58
1033	J-561	876.00	Forest	0.68	1053.00	76.58
5143	J-2723	877.23	Forest	0.08	1054.24	76.58
5178	J-2743	875.99	Forest	0.08	1053.01	76.59
4740	J-2494	884.63	Forest	0.48	1061.67	76.60
872	J-490	877.14	Forest	0.08	1054.20	76.60
3295	J-1793	877.14	Forest	0.88	1054.24	76.62
796	J-452	884.56	Forest	0.48	1061.67	76.63
7143	J-3883	887.80	Forest	0.48	1064.91	76.63
7144	J-3884	887.79	Forest	0.08	1064.91	76.63
2527	J-1356	875.20	Forest	0.48	1052.40	76.66
3275	J-1781	874.11	Forest	1.28	1051.31	76.67
5462	J-2907	887.69	Forest	0.88	1064.93	76.68
5731	J-3062	880.00	Forest	0.68	1057.28	76.70
5732	J-3063	880.00	Forest	0.68	1057.28	76.70
4296	J-2280	880.04	Forest	0.28	1057.33	76.71
67	J-26	881.10	Forest	0.08	1058.41	76.71
1547	J-768	1041.60	Lakes	0.20	1218.96	76.74
7692	J-4089	879.92	Forest	0.48	1057.28	76.74
4370	J-2302	875.60	Forest	0.08	1052.99	76.75
3369	J-1833	875.76	Forest	1.68	1053.16	76.75
1419	J-708	874.92	Forest	0.28	1052.40	76.79
3676	J-2004	874.28	Forest	0.88	1051.76	76.79
1877	J-975	883.23	Forest	1.48	1060.72	76.79
2629	J-1414	876.24	Forest	0.48	1053.81	76.82
6812	J-3694	873.66	Forest	1.68	1051.23	76.83
6426	J-3466	887.39	Forest	0.08	1064.98	76.83
2529	J-1357	874.39	Forest	0.08	1051.99	76.84
666	J-384	883.49	Forest	0.28	1061.12	76.85
614	J-352	874.39	Forest	0.28	1052.07	76.87
4845	J-2552	875.30	Forest	1.08	1053.04	76.90
4301	J-2283	874.17	Forest	0.28	1052.03	76.95
6948	J-3774	874.50	Forest	0.28	1052.40	76.97
1867	J-968	887.00	Forest	0.88	1064.93	76.98
66	J-25	880.41	Forest	0.08	1058.41	77.01
3651	J-1991	873.74	Forest	1.28	1051.76	77.02
5450	J-2900	875.98	Forest	0.08	1054.02	77.03
3560	J-1941	886.91	Forest	0.08	1064.98	77.04
2530	J-1358	873.92	Forest	0.48	1051.99	77.05
5929	J-3173	1040.88	Lakes	0.20	1218.96	77.05
1234	J-646	896.91	Forest	0.08	1075.00	77.05
2030	J-1073	695.68	Forest	0.08	873.78	77.06
4112	J-2212	883.25	Forest	1.48	1061.38	77.07
6598	J-3567	873.61	Forest	0.48	1051.76	77.08
5359	J-2848	877.12	Forest	0.08	1055.31	77.10
8064	J-4164	876.45	Forest	1.28	1054.67	77.11
1041	J-585	874.68	Forest	0.08	1052.95	77.13
4846	J-2553	874.75	Forest	1.28	1053.04	77.14
7325	J-3964	879.03	Forest	0.08	1057.33	77.14
2098	J-1108	812.94	Lakes	0.20	991.24	77.14
1420	J-709	874.09	Forest	0.08	1052.40	77.14
2309	J-1238	884.22	Forest	1.08	1062.54	77.15
7357	J-3977	886.64	Forest	0.08	1064.98	77.16
5360	J-2849	876.85	Forest	0.08	1055.31	77.21
832	J-471	883.72	Forest	0.08	1062.25	77.24
3677	J-2005	873.08	Forest	1.08	1051.76	77.31
2617	J-1408	873.82	Forest	0.08	1052.54	77.32
4896	J-2582	874.29	Forest	0.68	1053.16	77.39
2341	J-1255	840.43	Lakes	0.81	1019.31	77.39
423	J-234	875.06	Forest	0.08	1054.02	77.43
7661	J-4081	872.74	Forest	2.29	1051.73	77.44
3583	J-1954	873.50	Forest	0.08	1052.54	77.46
7709	J-4094	873.06	Forest	0.08	1052.12	77.47
1937	J-1013	814.26	Lakes	0.63	993.31	77.47
2173	J-1156	880.73	Forest	0.68	1059.86	77.50
4451	J-2329	879.05	Forest	0.48	1058.25	77.53
3764	J-2051	878.14	Forest	0.28	1057.34	77.53
6015	J-3221	878.40	Forest	0.08	1057.64	77.55
410	J-226	879.01	Forest	0.08	1058.25	77.55
5717	J-3054	878.00	Forest	1.08	1057.28	77.57
2751	J-1487	873.84	Forest	0.88	1053.16	77.58
2900	J-1571	873.11	Forest	2.09	1052.54	77.63
3727	J-2033	873.08	Forest	1.28	1052.53	77.64
6698	J-3627	873.49	Forest	0.08	1052.95	77.64
3814	J-2076	871.73	Forest	0.68	1051.23	77.66
3966	J-2148	872.60	Forest	0.08	1052.13	77.68
4492	J-2353	872.53	Forest	0.28	1052.13	77.70
5716	J-3053	877.64	Forest	0.68	1057.28	77.72
2299	J-1232	811.40	Lakes	0.55	991.26	77.81
1874	J-973	843.00	Lakes	0.46	1022.86	77.82
79	J-34	885.00	Forest	0.28	1064.98	77.87
578	J-331	871.90	Forest	2.29	1051.98	77.92
6002	J-3214	872.24	Forest	0.68	1052.38	77.94
4422	J-2320	871.96	Forest	1.08	1052.13	77.95
409	J-225	878.02	Forest	0.28	1058.24	77.97
3140	J-1699	872.64	Forest	0.08	1052.88	77.98
2306	J-1236	839.08	Lakes	0.55	1019.32	77.98
5114	J-2707	871.87	Forest	0.88	1052.13	77.99
611	J-350	877.29	Forest	0.08	1057.60	78.01
7632	J-4072	875.00	Forest	0.48	1055.31	78.01
3139	J-1698	872.52	Forest	0.08	1052.88	78.03
78	J-33	884.61	Forest	0.48	1064.98	78.04
1436	J-719	871.88	Forest	0.28	1052.41	78.11
3469	J-1889	872.00	Forest	1.28	1052.53	78.11
2737	J-1478	872.00	Forest	3.09	1052.54	78.11
1697	J-858	871.12	Forest	0.48	1051.72	78.14

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
5147	J-2725	872.25	Forest	0.68	1052.88	78.15
2163	J-1149	875.57	Forest	0.88	1056.20	78.15
305	J-158	871.28	Forest	0.88	1051.96	78.17
6001	J-3213	871.61	Forest	0.08	1052.38	78.21
2700	J-1456	881.99	Forest	0.48	1062.80	78.22
4110	J-2211	871.14	Forest	0.68	1051.96	78.23
2677	J-1442	873.09	Forest	0.88	1053.92	78.24
6283	J-3382	884.11	Forest	0.08	1064.98	78.25
5500	J-2928	873.36	Forest	0.48	1054.25	78.26
6632	J-3588	871.65	Forest	0.28	1052.53	78.26
610	J-349	876.73	Forest	0.28	1057.64	78.27
3802	J-2070	884.00	Forest	1.08	1064.93	78.28
304	J-157	871.01	Forest	0.28	1051.96	78.29
2018	J-1066	841.76	Lakes	0.37	1022.89	78.37
7086	J-3852	881.05	Forest	0.08	1062.25	78.40
1698	J-859	870.49	Forest	0.48	1051.72	78.41
145	J-71	880.71	Forest	1.48	1061.95	78.42
7693	J-4090	876.00	Forest	0.08	1057.28	78.43
939	J-518	870.94	Forest	0.28	1052.24	78.44
1858	J-962	872.93	Forest	1.28	1054.25	78.45
1435	J-718	871.05	Forest	0.28	1052.41	78.47
7182	J-3901	875.83	Forest	0.28	1057.32	78.53
6633	J-3589	871.01	Forest	0.08	1052.53	78.54
3613	J-1970	883.44	Forest	0.28	1064.98	78.54
6036	J-3233	870.80	Forest	0.28	1052.41	78.57
1952	J-1023	883.27	Forest	1.68	1064.94	78.60
5455	J-2903	875.62	Forest	0.28	1057.32	78.61
424	J-235	872.31	Forest	0.08	1054.03	78.62
6197	J-3330	874.66	Forest	0.28	1056.39	78.63
2138	J-1134	869.28	Forest	0.48	1051.03	78.64
5454	J-2902	875.55	Forest	0.28	1057.32	78.64
6466	J-3489	872.15	Forest	0.48	1053.93	78.65
5349	J-2842	879.32	Forest	0.88	1061.11	78.65
1478	J-741	870.54	Forest	0.08	1052.37	78.67
4654	J-2446	870.53	Forest	0.48	1052.37	78.67
6317	J-3402	869.12	Forest	0.88	1051.03	78.70
5350	J-2843	879.18	Forest	2.49	1061.11	78.72
3248	J-1764	870.98	Forest	0.08	1052.99	78.74
5974	J-3198	1036.77	Lakes	0.37	1218.85	78.78
2512	J-1347	870.29	Forest	0.28	1052.41	78.79
3504	J-1910	869.88	Forest	0.08	1052.01	78.80
3643	J-1986	869.61	Forest	0.88	1051.74	78.80
613	J-351	869.91	Forest	0.48	1052.07	78.81
3964	J-2147	877.57	Forest	0.88	1059.76	78.83
1819	J-937	874.14	Forest	0.08	1056.39	78.85
4823	J-2539	869.83	Forest	0.28	1052.09	78.85
2510	J-1346	877.41	Forest	1.28	1059.76	78.89
6582	J-3558	874.94	Forest	1.08	1057.30	78.90
4982	J-2631	869.56	Forest	0.08	1051.98	78.93
1562	J-776	1036.37	Lakes	0.20	1218.85	78.95
7489	J-4024	874.81	Forest	1.28	1057.30	78.95
4085	J-2202	877.27	Forest	1.08	1059.76	78.96
3525	J-1922	869.59	Forest	0.68	1052.09	78.96
6396	J-3449	877.25	Forest	1.08	1059.76	78.96
6467	J-3490	871.30	Forest	0.08	1053.93	79.01
5154	J-2729	781.31	Forest	0.48	963.94	79.02
5711	J-3050	877.82	Forest	0.48	1060.46	79.02
6081	J-3262	882.28	Forest	0.08	1064.91	79.02
6196	J-3329	873.72	Forest	0.28	1056.39	79.03
1926	J-1006	879.26	Forest	0.88	1061.94	79.04
2229	J-1190	877.17	Forest	0.88	1059.86	79.04
3249	J-1765	870.26	Forest	0.08	1052.99	79.06
4570	J-2398	869.47	Forest	0.48	1052.24	79.08
4571	J-2399	869.45	Forest	0.08	1052.24	79.08
1818	J-936	873.57	Forest	0.88	1056.38	79.10
3974	J-2153	873.95	Forest	0.88	1056.78	79.10
5712	J-3051	877.59	Forest	0.28	1060.46	79.12
7517	J-4034	870.12	Forest	0.08	1053.01	79.13
6583	J-3559	874.37	Forest	0.28	1057.30	79.14
5155	J-2730	780.99	Forest	0.88	963.94	79.15
1443	J-723	869.43	Forest	1.08	1052.42	79.17
455	J-254	868.99	Forest	0.08	1051.98	79.17
5343	J-2839	874.23	Forest	0.08	1057.32	79.21
7431	J-4004	878.03	Forest	0.48	1061.12	79.21
5342	J-2838	874.12	Forest	0.08	1057.32	79.26
3577	J-1951	876.53	Forest	0.48	1059.76	79.27
2438	J-1307	869.50	Forest	0.28	1052.73	79.28
5442	J-2896	876.52	Forest	1.28	1059.76	79.28
4221	J-2256	876.43	Forest	1.28	1059.76	79.32
6080	J-3261	881.58	Forest	0.48	1064.91	79.32
6798	J-3686	869.62	Forest	0.08	1052.99	79.33
1462	J-733	868.98	Forest	0.08	1052.39	79.35
4593	J-2412	868.97	Forest	0.08	1052.39	79.35
3505	J-1911	868.55	Forest	0.68	1052.01	79.37
904	J-506	868.54	Forest	0.28	1052.03	79.39
6854	J-3718	873.21	Forest	1.48	1056.78	79.42
3470	J-1890	868.96	Forest	3.69	1052.53	79.42
1169	J-614	873.24	Forest	0.48	1056.82	79.42
3499	J-1907	867.60	Forest	0.08	1051.21	79.44
1433	J-717	868.96	Forest	0.08	1052.71	79.50
4684	J-2463	873.03	Forest	1.48	1056.82	79.52
1156	J-609	869.11	Forest	0.68	1053.03	79.57
787	J-448	877.61	Forest	0.68	1061.56	79.59
1028	J-559	878.73	Forest	0.88	1062.69	79.59
1993	J-1050	809.35	Lakes	0.46	993.32	79.60
1186	J-621	891.02	Forest	0.08	1075.00	79.60
42	J-10	779.95	Forest	0.48	963.96	79.61
5293	J-2809	873.26	Forest	0.08	1057.28	79.62
6367	J-3432	875.72	Forest	0.08	1059.76	79.63

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3922	J-2128	868.91	Forest	0.88	1052.96	79.63
5893	J-3153	868.66	Forest	0.48	1052.71	79.63
3461	J-1885	867.90	Forest	0.48	1051.96	79.63
3822	J-2079	878.70	Forest	2.09	1062.79	79.65
6258	J-3368	878.65	Forest	0.08	1062.79	79.67
2522	J-1353	868.26	Forest	4.09	1052.42	79.68
5292	J-2808	873.11	Forest	0.48	1057.28	79.68
367	J-198	872.46	Forest	0.68	1056.64	79.68
4554	J-2389	867.76	Forest	0.08	1051.96	79.69
7173	J-3898	873.02	Forest	0.08	1057.28	79.72
7374	J-3982	876.86	Forest	0.28	1061.12	79.72
7172	J-3897	873.02	Forest	0.08	1057.28	79.72
2013	J-1063	809.07	Lakes	0.46	993.35	79.73
1829	J-943	867.42	Forest	0.88	1051.72	79.73
1043	J-566	1034.31	Lakes	0.20	1218.62	79.74
5883	J-3148	878.03	Forest	0.48	1062.54	79.83
2233	J-1192	868.12	Forest	0.88	1052.64	79.83
5789	J-3095	869.47	Forest	0.48	1053.99	79.83
7180	J-3900	875.22	Forest	0.08	1059.76	79.84
2594	J-1394	877.32	Forest	0.88	1061.87	79.85
1964	J-1031	869.67	Forest	0.88	1054.23	79.85
6368	J-3433	875.19	Forest	0.28	1059.76	79.85
2701	J-1457	878.22	Forest	0.68	1062.80	79.86
41	J-9	779.34	Forest	0.08	963.96	79.88
4931	J-2602	872.67	Forest	0.08	1057.33	79.89
5904	J-3159	876.43	Forest	0.68	1061.12	79.91
6668	J-3609	868.34	Forest	0.48	1053.04	79.91
3873	J-2104	869.28	Forest	0.68	1053.99	79.91
6511	J-3515	875.63	Forest	0.08	1060.34	79.92
366	J-197	871.93	Forest	0.08	1056.64	79.92
1432	J-716	868.00	Forest	0.08	1052.72	79.92
7491	J-4025	872.54	Forest	0.68	1057.28	79.93
4556	J-2390	871.86	Forest	0.08	1056.64	79.94
6669	J-3610	868.19	Forest	0.08	1053.04	79.97
4930	J-2601	872.47	Forest	0.08	1057.33	79.98
3524	J-1921	867.22	Forest	0.48	1052.09	79.98
5999	J-3212	1033.71	Lakes	0.20	1218.62	80.00
2308	J-1237	877.60	Forest	1.48	1062.54	80.02
854	J-482	871.83	Forest	1.08	1056.78	80.02
2551	J-1370	872.32	Forest	1.08	1057.28	80.02
4064	J-2191	869.03	Forest	1.28	1053.99	80.03
6737	J-3649	867.54	Forest	1.28	1052.53	80.04
4330	J-2290	867.95	Forest	1.88	1052.98	80.06
2481	J-1331	867.96	Forest	1.08	1053.01	80.06
3777	J-2058	879.86	Forest	1.08	1064.93	80.07
3787	J-2063	866.70	Forest	0.08	1051.77	80.07
5254	J-2787	877.56	Forest	0.08	1062.69	80.10
3817	J-2077	866.07	Forest	3.29	1051.24	80.11
3618	J-1973	871.60	Forest	0.28	1056.77	80.12
395	J-216	871.46	Forest	0.48	1056.64	80.12
3790	J-2064	879.74	Forest	0.68	1064.93	80.12
4933	J-2603	871.71	Forest	0.88	1056.92	80.13
2437	J-1306	867.51	Forest	0.08	1052.73	80.14
8477	J-4190	866.78	Forest	0.68	1052.02	80.14
2194	J-1169	874.49	Forest	0.08	1059.76	80.16
5835	J-3121	872.00	Forest	0.08	1057.35	80.19
5836	J-3122	872.00	Forest	0.08	1057.35	80.19
5078	J-2688	879.54	Forest	0.28	1064.93	80.21
7574	J-4053	875.73	Forest	0.08	1061.12	80.21
3639	J-1984	867.23	Forest	0.28	1052.68	80.23
8540	J-4220	889.55	Forest	0.08	1075.00	80.24
5807	J-3106	871.31	Forest	0.28	1056.78	80.25
8373	J-4174	869.17	Forest	1.68	1054.67	80.26
4934	J-2604	871.40	Forest	0.48	1056.92	80.27
3094	J-1670	879.40	Forest	0.08	1064.93	80.27
534	J-303	868.47	Forest	0.28	1054.04	80.29
3004	J-1618	879.33	Forest	1.28	1064.92	80.30
5088	J-2693	867.13	Forest	0.08	1052.73	80.30
7481	J-4022	871.67	Forest	1.28	1057.28	80.31
5905	J-3160	875.48	Forest	0.08	1061.12	80.32
3774	J-2057	874.06	Forest	1.68	1059.76	80.34
5139	J-2721	871.53	Forest	0.08	1057.28	80.36
3105	J-1677	879.15	Forest	0.28	1064.93	80.38
3106	J-1678	879.07	Forest	0.08	1064.93	80.41
5138	J-2720	871.38	Forest	0.08	1057.28	80.43
3093	J-1669	879.02	Forest	0.48	1064.93	80.44
4130	J-2220	866.44	Forest	0.88	1052.37	80.44
1403	J-699	866.47	Forest	0.08	1052.43	80.45
3728	J-2034	866.57	Forest	1.88	1052.53	80.46
2550	J-1369	871.32	Forest	0.28	1057.28	80.46
5516	J-2937	866.45	Forest	0.48	1052.43	80.46
6512	J-3516	874.34	Forest	0.88	1060.34	80.47
7439	J-4007	875.10	Forest	0.48	1061.12	80.48
6022	J-3225	866.33	Forest	0.28	1052.37	80.49
7255	J-3938	871.18	Forest	0.08	1057.28	80.52
4031	J-2176	871.15	Forest	0.08	1057.30	80.54
7223	J-3922	874.96	Forest	0.88	1061.11	80.54
7890	J-4140	866.51	Forest	0.28	1052.68	80.55
2457	J-1317	866.81	Forest	1.08	1053.01	80.56
1633	J-818	866.16	Forest	1.68	1052.42	80.59
3720	J-2029	874.45	Forest	0.68	1060.74	80.60
1404	J-700	866.12	Forest	0.48	1052.43	80.61
3460	J-1884	865.63	Forest	0.68	1051.96	80.62
2137	J-1133	864.69	Forest	0.88	1051.03	80.62
6083	J-3263	878.50	Forest	0.88	1064.87	80.63
5690	J-3038	874.74	Forest	0.48	1061.11	80.64
7254	J-3937	870.82	Forest	0.08	1057.28	80.67
7519	J-4035	874.62	Forest	0.08	1061.12	80.69
831	J-470	875.21	Forest	0.08	1061.76	80.71

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4403	J-2314	878.19	Forest	1.28	1064.87	80.77
456	J-255	865.22	Forest	0.28	1051.98	80.81
5917	J-3166	1031.91	Lakes	0.20	1218.68	80.81
262	J-131	865.42	Forest	0.28	1052.21	80.82
6379	J-3439	864.92	Forest	0.48	1051.74	80.83
5689	J-3037	874.26	Forest	2.09	1061.11	80.84
1229	J-643	869.87	Forest	0.28	1056.73	80.85
4278	J-2274	865.10	Forest	1.28	1051.98	80.86
3998	J-2162	776.99	Forest	0.48	963.94	80.88
2458	J-1318	866.03	Forest	1.08	1053.01	80.90
261	J-130	865.19	Forest	0.08	1052.21	80.92
3644	J-1987	864.66	Forest	1.08	1051.74	80.94
1225	J-641	869.67	Forest	0.48	1056.77	80.95
349	J-186	873.26	Forest	0.08	1060.46	80.99
3367	J-1832	865.48	Forest	0.08	1052.73	81.01
6567	J-3549	873.85	Forest	1.88	1061.12	81.02
6842	J-3712	873.47	Forest	0.48	1060.74	81.03
2815	J-1524	776.65	Forest	0.48	963.95	81.04
4166	J-2236	872.54	Forest	1.68	1059.86	81.05
5191	J-2750	866.60	Forest	1.28	1054.00	81.08
2164	J-1150	868.80	Forest	1.08	1056.20	81.08
4284	J-2276	877.50	Forest	0.08	1064.93	81.09
3128	J-1691	866.48	Forest	0.28	1054.00	81.13
1556	J-773	1031.13	Lakes	0.20	1218.68	81.15
2172	J-1155	872.21	Forest	0.68	1059.86	81.19
350	J-187	872.80	Forest	0.08	1060.46	81.20
7023	J-3817	870.02	Forest	0.08	1057.71	81.21
3129	J-1692	866.20	Forest	1.08	1054.00	81.25
7295	J-3953	869.48	Forest	0.08	1057.30	81.26
6189	J-3325	877.09	Forest	1.28	1064.93	81.27
3330	J-1812	864.76	Forest	0.08	1052.72	81.32
5632	J-3004	870.42	Forest	0.08	1058.41	81.33
5410	J-2878	866.25	Forest	0.08	1054.24	81.33
864	J-486	864.00	Forest	0.48	1052.01	81.34
5593	J-2981	864.00	Forest	0.48	1052.01	81.34
1417	J-707	864.64	Forest	0.08	1052.68	81.35
6687	J-3620	863.70	Forest	0.68	1051.74	81.36
7546	J-4046	873.07	Forest	0.08	1061.11	81.36
860	J-484	863.91	Forest	0.88	1052.00	81.38
7246	J-3933	873.02	Forest	0.08	1061.12	81.38
5362	J-2850	864.57	Forest	0.08	1052.68	81.39
2745	J-1483	870.27	Forest	1.08	1058.41	81.40
6884	J-3736	876.73	Forest	0.48	1064.91	81.42
5879	J-3146	864.76	Forest	0.08	1052.99	81.44
3541	J-1930	865.97	Forest	0.08	1054.24	81.45
4399	J-2313	863.43	Forest	0.08	1051.74	81.47
6885	J-3737	876.60	Forest	0.48	1064.91	81.48
5627	J-3001	868.01	Forest	0.48	1056.39	81.50
1051	J-570	876.54	Forest	0.08	1064.93	81.50
5878	J-3145	864.52	Forest	0.28	1052.99	81.54
6688	J-3621	863.26	Forest	0.68	1051.74	81.55
708	J-407	863.49	Forest	0.08	1052.02	81.57
3576	J-1950	871.22	Forest	1.68	1059.76	81.57
6568	J-3550	872.55	Forest	0.08	1061.12	81.58
6188	J-3324	876.34	Forest	0.88	1064.93	81.59
6331	J-3410	864.00	Forest	0.28	1052.68	81.63
915	J-509	864.00	Forest	0.48	1052.68	81.63
7524	J-4037	872.44	Forest	0.08	1061.12	81.63
2924	J-1582	869.53	Forest	1.68	1058.24	81.65
6340	J-3416	863.77	Forest	0.28	1052.51	81.66
3019	J-1623	868.54	Forest	0.08	1057.30	81.67
5042	J-2667	864.19	Forest	1.88	1053.01	81.70
2287	J-1224	866.48	Forest	1.08	1055.31	81.70
7002	J-3805	864.13	Forest	0.08	1052.98	81.71
5043	J-2668	864.14	Forest	1.08	1053.01	81.72
596	J-341	863.31	Forest	0.08	1052.21	81.72
2884	J-1563	875.96	Forest	0.68	1064.88	81.73
6341	J-3417	863.58	Forest	0.08	1052.51	81.74
1535	J-762	876.00	Forest	0.08	1064.94	81.75
6514	J-3517	870.92	Forest	0.48	1059.86	81.75
3198	J-1733	864.00	Forest	0.08	1052.99	81.77
3199	J-1734	864.00	Forest	0.08	1052.99	81.77
5542	J-2952	864.00	Forest	0.08	1052.99	81.77
3193	J-1730	868.29	Forest	0.08	1057.29	81.77
5955	J-3188	868.24	Forest	0.08	1057.24	81.78
5863	J-3137	868.27	Forest	0.48	1057.28	81.78
3329	J-1811	863.68	Forest	0.28	1052.72	81.79
6006	J-3216	863.67	Forest	0.28	1052.72	81.79
2588	J-1390	868.20	Forest	1.08	1057.28	81.81
5118	J-2709	872.02	Forest	0.08	1061.12	81.82
7905	J-4142	868.16	Forest	0.28	1057.28	81.82
2466	J-1323	868.11	Forest	0.28	1057.24	81.83
6887	J-3738	868.08	Forest	0.08	1057.31	81.87
6332	J-3411	863.44	Forest	0.08	1052.68	81.88
788	J-449	872.21	Forest	0.88	1061.48	81.89
4812	J-2533	875.63	Forest	0.68	1064.93	81.90
5862	J-3136	867.96	Forest	0.28	1057.28	81.91
7400	J-3993	867.48	Forest	0.48	1056.83	81.92
2593	J-1393	872.43	Forest	0.48	1061.87	81.96
5626	J-3000	866.93	Forest	0.08	1056.39	81.97
3992	J-2159	865.82	Forest	1.08	1055.31	81.98
4605	J-2419	871.96	Forest	0.08	1061.48	82.00
3973	J-2152	867.25	Forest	1.28	1056.78	82.00
3194	J-1731	867.74	Forest	0.08	1057.29	82.01
5758	J-3078	872.31	Forest	0.68	1061.87	82.02
945	J-521	868.39	Forest	0.48	1057.97	82.02
2443	J-1309	867.65	Forest	0.28	1057.24	82.03
1010	J-552	871.46	Forest	0.48	1061.12	82.06
5364	J-2851	865.65	Forest	0.08	1055.31	82.06

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7120	J-3871	862.07	Forest	0.08	1051.74	82.06
5474	J-2914	862.36	Forest	0.68	1052.04	82.06
4478	J-2345	862.04	Forest	0.88	1051.74	82.07
2444	J-1310	867.51	Forest	0.08	1057.24	82.09
2989	J-1611	875.14	Forest	0.08	1064.96	82.13
1518	J-756	867.85	Forest	0.48	1057.71	82.15
7520	J-4036	871.22	Forest	0.08	1061.12	82.16
7610	J-4065	862.79	Forest	7.61	1052.72	82.17
1998	J-1053	803.43	Lakes	0.55	993.36	82.17
4479	J-2346	861.74	Forest	0.88	1051.74	82.20
5475	J-2915	862.02	Forest	0.68	1052.04	82.21
4297	J-2281	867.26	Forest	0.08	1057.31	82.22
3081	J-1662	874.86	Forest	0.28	1064.96	82.25
5944	J-3182	867.87	Forest	0.48	1057.97	82.25
8151	J-4169	862.64	Forest	1.08	1052.86	82.30
4976	J-2628	861.04	Forest	0.28	1051.27	82.30
5945	J-3183	867.72	Forest	0.48	1057.97	82.31
5757	J-3077	871.53	Forest	0.48	1061.87	82.35
2630	J-1415	863.38	Forest	1.28	1053.81	82.39
347	J-185	866.29	Forest	0.48	1056.83	82.44
3071	J-1656	861.32	Forest	0.08	1052.02	82.51
5774	J-3087	870.41	Forest	0.48	1061.11	82.51
346	J-184	866.11	Forest	0.08	1056.83	82.52
6386	J-3443	868.00	Forest	0.08	1058.75	82.53
3070	J-1655	861.26	Forest	7.88	1052.02	82.53
4814	J-2534	861.26	Forest	0.08	1052.02	82.53
6547	J-3536	869.00	Forest	0.48	1059.76	82.53
3490	J-1902	866.55	Forest	0.48	1057.36	82.56
6774	J-3671	861.84	Forest	0.28	1052.68	82.56
123	J-59	865.18	Forest	0.48	1056.15	82.62
1464	J-734	861.52	Forest	0.28	1052.51	82.63
4365	J-2301	866.28	Forest	0.48	1057.29	82.64
3860	J-2098	860.72	Forest	0.88	1051.73	82.64
5773	J-3086	870.09	Forest	0.28	1061.11	82.65
6263	J-3371	867.08	Forest	0.88	1058.14	82.66
5414	J-2880	860.66	Forest	1.08	1051.73	82.67
7419	J-4000	860.83	Forest	0.08	1051.98	82.70
6684	J-3618	861.25	Forest	0.28	1052.40	82.70
928	J-513	861.03	Forest	0.08	1052.20	82.71
6773	J-3670	861.50	Forest	0.08	1052.68	82.71
7578	J-4055	861.47	Forest	0.08	1052.68	82.72
207	J-95	863.41	Forest	0.08	1054.64	82.74
2169	J-1153	869.86	Forest	0.48	1061.11	82.75
3616	J-1972	860.00	Forest	0.68	1051.27	82.76
6912	J-3753	772.57	Forest	0.08	963.95	82.80
1509	J-752	867.34	Forest	0.48	1058.75	82.81
640	J-368	860.61	Forest	0.08	1052.02	82.81
1983	J-1043	873.45	Forest	0.88	1064.92	82.84
4680	J-2461	860.57	Forest	0.48	1052.12	82.88
1412	J-704	873.38	Forest	0.08	1064.94	82.88
3154	J-1707	864.57	Forest	0.48	1056.15	82.89
1777	J-910	860.15	Forest	0.88	1051.74	82.89
6548	J-3537	868.16	Forest	1.08	1059.76	82.89
850	J-479	860.61	Forest	0.28	1052.22	82.90
5591	J-2980	865.20	Forest	0.48	1056.82	82.91
861	J-485	860.33	Forest	0.88	1051.99	82.92
4007	J-2166	861.01	Forest	0.28	1052.72	82.94
1044	J-567	1026.90	Lakes	0.20	1218.62	82.95
6010	J-3218	865.50	Forest	0.88	1057.30	82.98
3828	J-2082	772.11	Forest	1.28	963.94	83.00
6940	J-3711	860.88	Forest	0.48	1052.72	83.00
4498	J-2356	860.38	Forest	0.08	1052.24	83.01
8469	J-4186	860.16	Forest	0.48	1052.02	83.01
5116	J-2708	860.83	Forest	0.48	1052.72	83.02
5486	J-2921	860.08	Forest	0.68	1051.99	83.03
6685	J-3619	860.49	Forest	0.28	1052.40	83.03
616	J-353	860.06	Forest	0.88	1051.98	83.04
2562	J-1376	860.00	Forest	0.48	1051.96	83.05
4679	J-2460	860.10	Forest	0.48	1052.12	83.08
8015	J-4158	860.99	Forest	1.88	1053.01	83.08
639	J-367	860.00	Forest	0.08	1052.02	83.08
3615	J-1971	859.22	Forest	2.49	1051.27	83.09
6711	J-3634	865.24	Forest	0.08	1057.29	83.09
768	J-438	859.90	Forest	0.08	1051.96	83.10
669	J-386	864.75	Forest	1.08	1056.82	83.10
3489	J-1901	865.25	Forest	0.08	1057.36	83.12
137	J-67	865.98	Forest	0.88	1058.14	83.14
7117	J-3869	872.69	Forest	0.08	1064.91	83.17
6011	J-3219	865.05	Forest	0.08	1057.30	83.18
7381	J-3986	865.00	Forest	0.08	1057.28	83.19
7878	J-4137	864.99	Forest	0.88	1057.28	83.20
3264	J-1774	860.71	Forest	0.28	1053.06	83.22
377	J-204	859.83	Forest	0.28	1052.24	83.24
1396	J-695	872.53	Forest	0.08	1064.94	83.25
3032	J-1631	860.32	Forest	0.48	1052.73	83.25
7118	J-3870	872.49	Forest	0.08	1064.91	83.25
1899	J-989	858.84	Forest	2.29	1051.28	83.26
1397	J-696	872.48	Forest	0.08	1064.94	83.27
5970	J-3196	860.40	Forest	0.48	1052.86	83.27
1655	J-831	872.40	Forest	0.68	1064.88	83.27
493	J-277	859.46	Forest	0.08	1051.96	83.28
3031	J-1630	860.22	Forest	0.28	1052.73	83.29
4354	J-2296	860.46	Forest	1.08	1052.99	83.30
1476	J-740	860.00	Forest	0.08	1052.54	83.30
4974	J-2627	860.00	Forest	0.08	1052.54	83.30
3265	J-1775	860.52	Forest	0.28	1053.06	83.30
6839	J-3710	860.17	Forest	0.08	1052.72	83.31
7380	J-3985	864.73	Forest	1.08	1057.28	83.31
2897	J-1570	771.23	Forest	0.48	963.94	83.38

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4874	J-2568	860.34	Forest	0.28	1053.06	83.38
7653	J-4079	859.36	Forest	0.08	1052.08	83.38
8485	J-4194	859.90	Forest	0.48	1052.68	83.40
4841	J-2550	872.10	Forest	0.08	1064.94	83.43
7797	J-4120	860.22	Forest	2.29	1053.10	83.45
5902	J-3158	863.43	Forest	0.48	1056.39	83.49
378	J-205	859.25	Forest	0.48	1052.24	83.50
5785	J-3093	859.83	Forest	0.68	1052.99	83.57
6913	J-3754	770.78	Forest	0.08	963.95	83.57
7543	J-4045	858.53	Forest	0.08	1051.73	83.59
4509	J-2363	858.47	Forest	2.49	1051.74	83.62
492	J-276	858.69	Forest	0.28	1051.96	83.62
5969	J-3195	859.54	Forest	2.09	1052.86	83.64
2580	J-1386	858.60	Forest	0.68	1051.96	83.66
677	J-391	865.54	Forest	0.08	1058.90	83.66
4508	J-2362	858.27	Forest	1.68	1051.74	83.71
7479	J-4021	871.41	Forest	0.08	1064.92	83.72
2329	J-1249	858.38	Forest	0.28	1051.96	83.75
4128	J-2219	863.82	Forest	0.48	1057.43	83.77
5876	J-3144	863.81	Forest	1.68	1057.43	83.77
5833	J-3120	867.99	Forest	0.48	1061.63	83.78
1718	J-872	859.24	Forest	0.88	1052.98	83.82
5913	J-3164	1024.98	Lakes	0.29	1218.74	83.83
4087	J-2203	867.76	Forest	0.88	1061.63	83.88
2393	J-1285	871.06	Forest	0.08	1064.94	83.88
4713	J-2478	858.13	Forest	0.08	1052.08	83.91
3646	J-1988	870.98	Forest	0.48	1064.97	83.93
777	J-443	858.06	Forest	0.08	1052.08	83.94
7582	J-4056	862.35	Forest	0.48	1056.39	83.95
1654	J-830	870.80	Forest	0.48	1064.88	83.97
1797	J-923	862.31	Forest	0.28	1056.39	83.97
4686	J-2464	857.74	Forest	0.28	1052.04	84.07
6517	J-3519	870.53	Forest	0.48	1064.92	84.10
124	J-60	861.96	Forest	0.28	1056.35	84.10
4178	J-2240	866.97	Forest	1.68	1061.38	84.11
238	J-115	857.62	Forest	0.08	1052.02	84.11
1457	J-730	858.00	Forest	0.28	1052.50	84.15
237	J-114	857.47	Forest	0.08	1052.02	84.17
6492	J-3504	858.19	Forest	1.28	1052.76	84.18
7196	J-3908	857.13	Forest	0.08	1051.73	84.20
1538	J-763	1024.06	Lakes	0.20	1218.74	84.23
6493	J-3505	858.08	Forest	0.68	1052.76	84.23
2941	J-1590	828.21	Lakes	0.89	1022.89	84.23
1264	J-656	858.24	Forest	0.88	1053.01	84.27
1340	J-685	1023.94	Lakes	0.20	1218.74	84.28
2035	J-1076	828.00	Lakes	1.06	1022.80	84.28
6769	J-3668	862.40	Forest	0.48	1057.33	84.33
226	J-107	857.08	Forest	0.28	1052.04	84.35
7197	J-3909	856.76	Forest	0.08	1051.73	84.36
6516	J-3518	869.90	Forest	0.48	1064.92	84.37
3725	J-2032	857.50	Forest	0.08	1052.52	84.38
1953	J-1024	869.89	Forest	0.88	1064.93	84.38
966	J-531	862.28	Forest	0.28	1057.33	84.39
5907	J-3161	857.45	Forest	2.49	1052.52	84.40
3990	J-2158	864.76	Forest	1.88	1059.86	84.41
7792	J-4118	857.54	Forest	0.48	1052.68	84.42
1917	J-1000	859.02	Forest	0.88	1054.24	84.46
6700	J-3628	861.09	Forest	0.08	1056.35	84.48
1455	J-729	863.45	Forest	0.08	1058.89	84.56
225	J-106	856.51	Forest	0.28	1052.04	84.60
4395	J-2311	861.25	Forest	2.09	1056.78	84.60
8523	J-4213	856.91	Forest	6.12	1052.45	84.60
6918	J-3757	861.37	Forest	0.68	1056.92	84.61
1628	J-815	856.42	Forest	0.48	1052.02	84.63
5112	J-2706	857.31	Forest	0.68	1052.99	84.66
4552	J-2388	856.00	Forest	0.08	1051.73	84.68
7266	J-3942	856.00	Forest	0.68	1051.73	84.68
721	J-415	856.22	Forest	0.08	1051.96	84.68
7614	J-4067	856.00	Forest	0.48	1051.74	84.69
7529	J-4040	856.00	Forest	0.08	1051.74	84.69
3894	J-2115	859.97	Forest	0.68	1055.83	84.74
4551	J-2387	855.84	Forest	0.08	1051.73	84.76
4722	J-2483	857.11	Forest	0.08	1053.01	84.76
1079	J-580	1022.76	Lakes	0.20	1218.68	84.77
6895	J-3743	861.31	Forest	0.68	1057.26	84.78
2463	J-1321	856.00	Forest	0.08	1051.96	84.78
4358	J-2298	861.28	Forest	0.68	1057.26	84.79
3397	J-1848	857.04	Forest	0.28	1053.06	84.81
1859	J-963	858.22	Forest	0.68	1054.24	84.81
4073	J-2196	857.02	Forest	0.48	1053.06	84.82
3501	J-1908	863.71	Forest	0.88	1059.76	84.82
1552	J-771	1022.26	Lakes	0.20	1218.32	84.83
6900	J-3746	860.67	Forest	0.08	1056.78	84.85
2632	J-1416	855.61	Forest	0.88	1051.74	84.86
232	J-111	860.78	Forest	0.68	1056.92	84.86
1428	J-714	856.31	Forest	0.08	1052.45	84.86
7190	J-3905	856.84	Forest	0.08	1053.01	84.87
5509	J-2933	1022.50	Lakes	0.29	1218.68	84.88
1093	J-586	855.76	Forest	7.00	1051.96	84.89
1203	J-630	856.79	Forest	0.08	1052.99	84.89
2464	J-1322	855.75	Forest	0.68	1051.96	84.89
6919	J-3758	860.67	Forest	0.08	1056.92	84.91
5279	J-2801	860.66	Forest	0.68	1056.92	84.91
7184	J-3902	868.57	Forest	0.08	1064.94	84.96
4723	J-2484	856.59	Forest	0.08	1053.01	84.98
5963	J-3192	1021.89	Lakes	0.20	1218.32	84.99
8475	J-4189	856.22	Forest	0.28	1052.68	85.00
231	J-110	860.44	Forest	0.68	1056.92	85.01
4862	J-2562	868.43	Forest	0.48	1064.93	85.01

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4757	J-2503	856.53	Forest	0.68	1053.06	85.03
726	J-418	855.48	Forest	0.08	1052.02	85.04
1111	J-594	863.22	Forest	0.08	1059.77	85.04
5128	J-2715	864.55	Forest	0.08	1061.12	85.05
4490	J-2352	860.22	Forest	0.68	1056.83	85.06
6901	J-3747	860.17	Forest	0.28	1056.78	85.07
520	J-294	856.00	Forest	0.48	1052.71	85.11
521	J-295	856.00	Forest	0.48	1052.71	85.11
5101	J-2700	856.00	Forest	0.08	1052.71	85.11
1717	J-871	856.19	Forest	1.28	1052.96	85.13
7280	J-3948	860.12	Forest	0.48	1056.92	85.15
2404	J-1291	868.14	Forest	0.08	1064.94	85.15
4377	J-2304	854.93	Forest	0.28	1051.73	85.15
5110	J-2705	862.34	Forest	0.08	1059.16	85.15
8502	J-4204	855.41	Forest	0.08	1052.22	85.15
5900	J-3157	1021.78	Lakes	0.20	1218.61	85.16
1542	J-765	1021.75	Lakes	0.20	1218.61	85.17
3103	J-1676	854.86	Forest	0.68	1051.74	85.18
1283	J-666	859.94	Forest	0.68	1056.83	85.18
3102	J-1675	854.83	Forest	0.08	1051.74	85.19
1004	J-548	867.99	Forest	0.48	1064.93	85.20
114	J-55	862.19	Forest	1.68	1059.15	85.22
3332	J-1813	856.00	Forest	0.88	1053.00	85.23
956	J-527	864.11	Forest	0.08	1061.12	85.24
8495	J-4200	855.43	Forest	0.48	1052.51	85.27
3270	J-1778	860.22	Forest	0.08	1057.31	85.27
1921	J-1003	857.11	Forest	0.68	1054.23	85.29
599	J-343	861.98	Forest	0.08	1059.16	85.31
3333	J-1814	855.80	Forest	0.08	1053.00	85.32
6613	J-3576	855.76	Forest	0.08	1053.00	85.34
5702	J-3045	860.00	Forest	0.28	1057.28	85.35
7272	J-3945	860.00	Forest	1.08	1057.28	85.35
4838	J-2548	854.72	Forest	0.08	1052.02	85.36
6614	J-3577	855.71	Forest	0.88	1053.00	85.36
4872	J-2567	855.66	Forest	0.08	1053.00	85.38
5297	J-2811	861.81	Forest	0.48	1059.15	85.38
5534	J-2948	867.58	Forest	0.08	1064.93	85.38
8039	J-4161	854.64	Forest	0.28	1052.04	85.41
3196	J-1732	854.67	Forest	0.28	1052.13	85.43
2314	J-1241	856.21	Forest	1.08	1053.70	85.44
3721	J-2030	863.21	Forest	0.88	1060.74	85.46
851	J-480	854.66	Forest	0.08	1052.21	85.47
8496	J-4201	854.93	Forest	0.28	1052.51	85.49
113	J-54	861.42	Forest	0.08	1059.01	85.49
2757	J-1490	867.34	Forest	0.88	1064.93	85.49
3299	J-1795	855.34	Forest	0.88	1053.00	85.52
7279	J-3947	859.24	Forest	0.08	1056.92	85.53
2612	J-1405	856.27	Forest	0.68	1053.99	85.54
166	J-82	863.41	Forest	1.08	1061.13	85.54
4839	J-2549	854.29	Forest	0.28	1052.02	85.55
2170	J-1154	863.36	Forest	1.28	1061.11	85.56
5170	J-2739	854.46	Forest	0.08	1052.21	85.56
853	J-481	858.98	Forest	0.28	1056.79	85.58
3269	J-1777	859.39	Forest	0.08	1057.31	85.63
2858	J-1549	854.20	Forest	0.08	1052.13	85.63
1812	J-932	862.32	Forest	0.88	1060.26	85.64
6585	J-3560	854.17	Forest	0.28	1052.13	85.65
3224	J-1749	857.72	Forest	0.48	1055.83	85.71
2808	J-1520	854.86	Forest	1.28	1053.00	85.72
5383	J-2863	853.59	Forest	0.88	1051.74	85.73
5048	J-2671	854.01	Forest	0.68	1052.20	85.75
2195	J-1170	861.53	Forest	0.68	1059.76	85.77
7044	J-3828	866.68	Forest	0.08	1064.94	85.78
866	J-487	853.56	Forest	0.28	1051.96	85.84
4591	J-2411	862.69	Forest	0.08	1061.15	85.87
5382	J-2862	853.26	Forest	0.08	1051.74	85.87
483	J-271	862.57	Forest	0.88	1061.15	85.92
3939	J-2136	855.64	Forest	1.08	1054.24	85.93
5230	J-2773	858.64	Forest	0.08	1057.31	85.96
1048	J-569	863.00	Forest	0.08	1061.76	86.00
6415	J-3460	860.98	Forest	0.08	1059.76	86.00
4715	J-2479	853.26	Forest	0.08	1052.04	86.00
6310	J-3398	860.10	Forest	0.08	1058.89	86.01
7450	J-4009	853.20	Forest	2.09	1052.01	86.02
1254	J-652	853.25	Forest	0.68	1052.08	86.02
6735	J-3648	853.10	Forest	0.28	1051.96	86.04
2978	J-1605	824.00	Lakes	1.06	1022.90	86.05
4363	J-2300	853.13	Forest	1.08	1052.07	86.07
654	J-377	853.08	Forest	0.48	1052.04	86.08
5049	J-2672	853.24	Forest	0.08	1052.20	86.08
7508	J-4030	857.29	Forest	1.28	1056.26	86.08
5753	J-3075	865.90	Forest	0.08	1064.88	86.09
2633	J-1417	852.74	Forest	0.88	1051.74	86.10
2210	J-1178	764.91	Forest	0.08	963.95	86.12
7528	J-4039	852.69	Forest	0.08	1051.74	86.12
903	J-505	852.93	Forest	0.08	1052.04	86.15
2814	J-1523	764.71	Forest	0.48	963.95	86.20
3223	J-1748	856.58	Forest	0.68	1055.83	86.21
5229	J-2772	858.04	Forest	0.08	1057.31	86.21
3238	J-1758	860.46	Forest	0.28	1059.76	86.23
465	J-260	860.30	Forest	0.68	1059.77	86.30
8529	J-4216	853.05	Forest	0.48	1052.68	86.37
1458	J-731	852.82	Forest	0.48	1052.48	86.39
5544	J-2953	852.81	Forest	0.08	1052.48	86.39
5703	J-3046	857.60	Forest	0.28	1057.28	86.39
5608	J-2990	856.06	Forest	0.48	1055.83	86.43
1430	J-715	858.87	Forest	0.28	1058.64	86.43
3791	J-2065	865.13	Forest	0.48	1064.93	86.45
2785	J-1507	764.07	Forest	0.48	963.95	86.48

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
1116	J-595	852.00	Forest	0.28	1051.96	86.51
3237	J-1757	859.80	Forest	0.08	1059.76	86.51
6570	J-3551	851.96	Forest	0.08	1051.96	86.53
6353	J-3424	856.39	Forest	0.48	1056.39	86.53
7561	J-4051	856.39	Forest	0.48	1056.39	86.53
3209	J-1740	852.83	Forest	0.28	1052.99	86.60
4777	J-2514	851.81	Forest	0.08	1051.98	86.60
2184	J-1163	851.96	Forest	0.48	1052.14	86.61
3882	J-2109	851.10	Forest	1.68	1051.28	86.61
1796	J-922	856.20	Forest	0.48	1056.39	86.61
567	J-324	851.75	Forest	0.08	1051.96	86.62
4546	J-2384	851.86	Forest	0.88	1052.09	86.63
3090	J-1667	851.86	Forest	0.48	1052.09	86.63
3868	J-2101	763.69	Forest	0.08	963.96	86.64
4476	J-2344	851.84	Forest	0.48	1052.14	86.66
4382	J-2307	852.67	Forest	1.08	1052.99	86.67
6915	J-3755	856.42	Forest	0.88	1056.78	86.69
3343	J-1819	852.62	Forest	0.48	1052.99	86.69
3325	J-1809	851.60	Forest	0.08	1051.98	86.70
6352	J-3423	856.00	Forest	0.08	1056.39	86.70
756	J-432	852.30	Forest	0.48	1052.71	86.71
3311	J-1801	864.45	Forest	0.48	1064.88	86.72
1414	J-705	852.00	Forest	0.08	1052.45	86.73
1415	J-706	852.00	Forest	0.48	1052.45	86.73
5776	J-3088	852.00	Forest	0.08	1052.45	86.73
3478	J-1895	851.52	Forest	0.88	1051.98	86.73
3581	J-1953	864.34	Forest	0.88	1064.93	86.79
5213	J-2762	852.38	Forest	0.48	1052.99	86.79
3210	J-1741	852.36	Forest	0.08	1052.99	86.80
1427	J-713	851.82	Forest	0.08	1052.45	86.80
4753	J-2501	852.35	Forest	0.28	1052.99	86.81
5809	J-3107	851.77	Forest	0.08	1052.45	86.83
3091	J-1668	851.38	Forest	0.08	1052.09	86.84
588	J-336	860.64	Forest	0.68	1061.36	86.84
3502	J-1909	859.00	Forest	0.08	1059.76	86.86
6608	J-3573	859.50	Forest	0.08	1060.27	86.86
3324	J-1808	851.20	Forest	0.48	1051.98	86.87
5329	J-2831	851.65	Forest	0.08	1052.45	86.88
5212	J-2761	852.16	Forest	0.68	1052.99	86.89
4826	J-2541	851.18	Forest	0.08	1052.04	86.90
1297	J-674	857.70	Forest	0.08	1058.64	86.94
7077	J-3847	860.82	Forest	0.08	1061.76	86.94
2972	J-1602	856.07	Forest	0.28	1057.01	86.94
4825	J-2540	851.04	Forest	1.68	1052.04	86.96
4581	J-2405	852.00	Forest	1.08	1053.00	86.96
4704	J-2473	860.24	Forest	0.08	1061.33	87.00
4582	J-2406	851.91	Forest	1.28	1053.00	87.00
5885	J-3149	857.50	Forest	0.08	1058.64	87.03
1558	J-774	1017.40	Lakes	0.20	1218.55	87.03
7422	J-4001	860.69	Forest	1.68	1061.88	87.04
5097	J-2698	851.54	Forest	0.48	1052.72	87.04
2328	J-1248	850.76	Forest	0.48	1051.96	87.05
5172	J-2740	863.68	Forest	0.48	1064.93	87.07
4864	J-2563	859.89	Forest	0.48	1061.13	87.07
5201	J-2755	856.02	Forest	0.88	1057.28	87.07
589	J-337	860.02	Forest	0.48	1061.33	87.10
936	J-517	859.80	Forest	0.28	1061.13	87.11
2997	J-1615	850.59	Forest	0.48	1051.96	87.12
1813	J-933	858.86	Forest	0.48	1060.26	87.14
6609	J-3574	858.84	Forest	0.28	1060.27	87.15
5881	J-3147	1017.10	Lakes	0.20	1218.55	87.16
6522	J-3522	850.50	Forest	0.28	1051.96	87.16
3662	J-1996	851.57	Forest	0.28	1053.06	87.18
2743	J-1482	851.09	Forest	1.48	1052.72	87.24
506	J-285	850.20	Forest	0.08	1051.96	87.29
6750	J-3657	854.44	Forest	0.08	1056.26	87.32
8215	J-4171	850.13	Forest	1.08	1051.96	87.32
5328	J-2830	850.57	Forest	0.08	1052.45	87.34
6800	J-3687	850.46	Forest	2.09	1052.52	87.42
5347	J-2841	850.01	Forest	0.28	1052.09	87.43
6458	J-3485	849.95	Forest	0.08	1052.04	87.43
161	J-79	856.96	Forest	0.28	1059.09	87.45
1406	J-701	856.50	Forest	0.08	1058.64	87.46
2655	J-1430	858.11	Forest	0.68	1060.26	87.46
2964	J-1598	862.72	Forest	0.28	1064.88	87.47
6751	J-3658	854.08	Forest	0.28	1056.26	87.47
7098	J-3858	856.92	Forest	0.48	1059.16	87.50
7501	J-4028	849.45	Forest	2.09	1051.74	87.52
697	J-401	849.73	Forest	1.08	1052.04	87.53
4071	J-2195	849.77	Forest	0.28	1052.09	87.53
946	J-522	855.72	Forest	1.08	1058.04	87.53
1545	J-767	1016.00	Lakes	0.20	1218.36	87.55
3611	J-1969	862.59	Forest	0.08	1064.97	87.56
6127	J-3289	849.31	Forest	2.09	1051.74	87.58
7012	J-3811	854.49	Forest	0.28	1057.01	87.62
6004	J-3215	853.27	Forest	0.08	1055.82	87.64
6450	J-3480	857.17	Forest	0.48	1059.77	87.65
5202	J-2756	854.67	Forest	0.88	1057.28	87.66
8493	J-4199	849.34	Forest	0.68	1051.96	87.66
7301	J-3956	853.63	Forest	0.08	1056.26	87.67
5479	J-2917	848.62	Forest	0.28	1051.28	87.68
3569	J-1946	857.09	Forest	0.48	1059.77	87.69
6358	J-3427	850.66	Forest	0.88	1053.48	87.75
3432	J-1868	849.64	Forest	2.89	1052.52	87.78
976	J-536	848.15	Forest	0.68	1051.04	87.78
5623	J-2998	848.84	Forest	0.88	1051.74	87.78
4014	J-2169	849.74	Forest	1.08	1052.66	87.80
5046	J-2670	849.24	Forest	0.28	1052.17	87.80
156	J-76	856.88	Forest	0.08	1059.87	87.82

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2742	J-1481	849.65	Forest	1.48	1052.72	87.86
3045	J-1639	852.72	Forest	0.08	1055.82	87.87
1799	J-924	849.39	Forest	0.28	1052.49	87.87
3044	J-1638	852.72	Forest	0.48	1055.82	87.87
870	J-489	1014.74	Lakes	0.20	1217.94	87.92
2883	J-1562	861.59	Forest	1.08	1064.87	87.95
45	J-12	852.51	Forest	0.48	1055.83	87.97
653	J-376	848.70	Forest	0.28	1052.04	87.97
566	J-323	848.59	Forest	0.08	1051.96	87.99
5624	J-2999	848.34	Forest	0.88	1051.74	88.00
5518	J-2938	854.64	Forest	0.48	1058.04	88.00
3585	J-1955	855.91	Forest	0.08	1059.33	88.01
7153	J-3889	853.80	Forest	0.08	1057.28	88.04
5325	J-2828	853.79	Forest	0.88	1057.28	88.04
6128	J-3290	848.24	Forest	0.08	1051.74	88.05
8542	J-4221	871.46	Forest	0.08	1075.00	88.06
5045	J-2669	848.56	Forest	1.08	1052.17	88.09
44	J-11	852.18	Forest	0.28	1055.82	88.10
2072	J-1096	1014.32	Lakes	0.37	1218.03	88.14
2183	J-1162	848.33	Forest	0.68	1052.14	88.18
2729	J-1473	849.66	Forest	1.08	1053.48	88.18
7966	J-4152	848.24	Forest	19.88	1052.08	88.19
5326	J-2829	853.39	Forest	0.28	1057.28	88.22
505	J-284	848.00	Forest	0.08	1051.95	88.24
8473	J-4188	848.00	Forest	0.68	1051.95	88.24
6101	J-3273	1014.08	Lakes	0.20	1218.03	88.24
781	J-445	848.00	Forest	0.28	1051.96	88.24
7389	J-3989	848.00	Forest	0.28	1051.96	88.24
315	J-164	848.00	Forest	0.88	1051.96	88.24
316	J-165	848.00	Forest	0.28	1051.96	88.24
632	J-363	848.00	Forest	1.08	1051.97	88.25
4152	J-2229	847.72	Forest	0.88	1051.76	88.28
1024	J-557	847.92	Forest	1.08	1051.96	88.28
7706	J-4093	853.93	Forest	1.08	1057.97	88.28
6916	J-3756	852.67	Forest	0.28	1056.78	88.31
434	J-241	847.79	Forest	0.48	1051.96	88.34
4792	J-2523	847.77	Forest	0.28	1051.96	88.35
3714	J-2026	860.68	Forest	0.48	1064.93	88.37
6757	J-3661	853.48	Forest	0.68	1057.87	88.43
6890	J-3740	852.82	Forest	0.48	1057.29	88.46
7040	J-3826	860.47	Forest	0.08	1064.94	88.47
4118	J-2215	848.40	Forest	1.48	1052.88	88.47
7132	J-3877	847.20	Forest	0.48	1051.74	88.49
338	J-179	855.19	Forest	0.08	1059.77	88.51
337	J-178	855.17	Forest	0.08	1059.77	88.52
3947	J-2140	858.19	Forest	0.48	1062.80	88.52
4037	J-2178	848.40	Forest	0.68	1053.01	88.52
6889	J-3739	852.66	Forest	2.09	1057.29	88.53
598	J-342	854.70	Forest	0.08	1059.33	88.54
4520	J-2369	1118.26	Stewartsville	0.40	1322.92	88.54
1100	J-590	853.07	Forest	1.08	1057.87	88.61
6237	J-3355	857.07	Forest	0.48	1061.88	88.61
435	J-242	847.14	Forest	0.08	1051.96	88.62
6236	J-3354	857.04	Forest	0.88	1061.88	88.62
3853	J-2095	851.00	Forest	0.68	1055.83	88.62
3941	J-2137	847.29	Forest	1.28	1052.14	88.63
8491	J-4198	847.65	Forest	0.08	1052.51	88.64
2385	J-1281	860.07	Forest	0.08	1064.94	88.64
698	J-402	847.15	Forest	0.88	1052.04	88.64
914	J-508	847.66	Forest	0.88	1052.56	88.65
8614	J-4223	860.00	Forest	0.00	1064.94	88.67
8617	J-4224	860.00	Forest	0.00	1064.94	88.67
7337	J-3968	854.38	Forest	0.08	1059.33	88.67
5302	J-2814	854.88	Forest	0.48	1059.86	88.69
6970	J-3786	846.94	Forest	0.08	1051.96	88.70
1224	J-640	851.73	Forest	0.48	1056.78	88.72
1087	J-584	1117.80	Stewartsville	0.55	1322.92	88.74
4662	J-2450	859.79	Forest	1.28	1064.93	88.76
6964	J-3783	849.08	Forest	0.68	1054.24	88.76
7133	J-3878	846.52	Forest	0.08	1051.74	88.79
2923	J-1581	852.99	Forest	1.48	1058.24	88.80
5826	J-3116	854.52	Forest	0.08	1059.87	88.84
2356	J-1263	859.55	Forest	1.48	1064.93	88.86
1167	J-613	847.53	Forest	0.48	1052.92	88.86
5934	J-3176	849.00	Forest	0.88	1054.42	88.88
5909	J-3162	1012.91	Lakes	0.20	1218.38	88.90
7151	J-3888	856.41	Forest	0.08	1061.88	88.90
6654	J-3601	859.45	Forest	0.48	1064.93	88.90
6577	J-3555	851.30	Forest	0.68	1056.78	88.90
5833	J-3175	848.93	Forest	0.68	1054.42	88.91
6850	J-3716	851.24	Forest	0.88	1056.78	88.93
2746	J-1484	852.84	Forest	1.08	1058.40	88.94
3047	J-1640	1012.34	Lakes	0.20	1217.94	88.95
5939	J-3179	852.36	Forest	0.08	1057.97	88.96
4698	J-2470	1012.26	Lakes	0.20	1217.94	88.99
3048	J-1641	1012.25	Lakes	0.20	1217.94	88.99
7461	J-4014	851.71	Forest	0.08	1057.42	89.00
4136	J-2223	851.05	Forest	1.48	1056.78	89.01
868	J-488	854.02	Forest	0.68	1059.77	89.02
7786	J-4117	846.24	Forest	1.48	1052.01	89.03
5778	J-3089	853.29	Forest	0.08	1059.09	89.04
3382	J-1840	846.13	Forest	0.68	1051.96	89.05
4201	J-2250	848.41	Forest	0.28	1054.24	89.05
841	J-475	850.82	Forest	0.88	1056.71	89.08
6058	J-3247	846.07	Forest	0.08	1052.00	89.10
8343	J-4173	845.76	Forest	0.68	1051.73	89.12
6923	J-3760	850.80	Forest	0.88	1056.78	89.12
1438	J-720	846.47	Forest	0.28	1052.45	89.12
6166	J-3312	856.78	Forest	0.68	1062.80	89.14

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
631	J-362	845.95	Forest	0.68	1051.97	89.14
5667	J-3025	845.88	Forest	0.28	1052.04	89.19
1325	J-681	845.76	Forest	0.48	1051.96	89.21
2920	J-1580	846.31	Forest	0.88	1052.52	89.22
7251	J-3936	845.79	Forest	0.08	1052.00	89.22
1544	J-766	1012.13	Lakes	0.20	1218.38	89.23
1664	J-836	846.88	Forest	0.88	1053.16	89.25
3126	J-1690	850.42	Forest	0.08	1056.71	89.25
763	J-436	845.79	Forest	0.08	1052.08	89.25
3232	J-1754	853.56	Forest	0.28	1059.86	89.26
3371	J-1834	858.60	Forest	0.08	1064.93	89.27
3845	J-2091	847.66	Forest	1.08	1053.99	89.27
7460	J-4013	851.05	Forest	1.08	1057.42	89.29
3186	J-1726	850.23	Forest	0.48	1056.61	89.29
3184	J-1725	858.45	Forest	0.08	1064.86	89.30
3701	J-2019	845.61	Forest	0.08	1052.04	89.31
3848	J-2093	846.56	Forest	1.68	1053.00	89.32
5160	J-2733	846.54	Forest	0.48	1053.00	89.33
4995	J-2639	845.93	Forest	0.28	1052.44	89.35
3207	J-1739	858.41	Forest	0.08	1064.93	89.35
5840	J-3124	845.19	Forest	0.48	1051.74	89.37
4357	J-2297	850.70	Forest	0.68	1057.27	89.38
3183	J-1724	858.29	Forest	0.08	1064.86	89.38
825	J-467	845.38	Forest	0.88	1051.96	89.38
2724	J-1470	845.10	Forest	1.68	1051.74	89.40
817	J-462	853.08	Forest	0.08	1059.77	89.42
8490	J-4197	845.81	Forest	0.48	1052.51	89.43
6479	J-3497	854.39	Forest	0.08	1061.12	89.44
1885	J-980	858.19	Forest	0.48	1064.93	89.45
1732	J-881	848.56	Forest	0.48	1055.31	89.45
6962	J-3782	850.62	Forest	0.08	1057.40	89.46
5938	J-3178	851.16	Forest	0.08	1057.97	89.48
120	J-57	855.36	Forest	0.48	1062.25	89.51
89	J-40	849.71	Forest	0.08	1056.61	89.52
7336	J-3967	852.43	Forest	0.48	1059.33	89.52
4396	J-2312	849.85	Forest	1.28	1056.78	89.53
2331	J-1250	852.93	Forest	1.28	1059.86	89.53
4996	J-2640	845.50	Forest	0.28	1052.44	89.53
5841	J-3125	844.65	Forest	2.09	1051.74	89.60
3702	J-2020	844.94	Forest	0.48	1052.04	89.60
6616	J-3578	850.15	Forest	0.28	1057.27	89.61
4993	J-2638	854.24	Forest	0.88	1061.38	89.62
7211	J-3915	857.76	Forest	0.28	1064.94	89.64
5936	J-3177	851.38	Forest	0.08	1058.63	89.67
4919	J-2595	845.70	Forest	3.29	1053.02	89.70
2725	J-1471	844.36	Forest	0.88	1051.74	89.72
1510	J-753	851.20	Forest	0.48	1058.63	89.74
4516	J-2367	844.29	Forest	0.88	1051.74	89.75
618	J-354	844.51	Forest	0.48	1051.96	89.75
5106	J-2703	844.38	Forest	0.48	1051.84	89.76
2352	J-1261	811.85	Lakes	0.72	1019.31	89.76
2611	J-1404	846.51	Forest	0.68	1053.99	89.77
968	J-532	844.62	Forest	0.28	1052.20	89.81
6502	J-3510	846.38	Forest	1.48	1054.00	89.83
934	J-516	853.49	Forest	1.28	1061.12	89.83
6910	J-3752	845.34	Forest	0.28	1052.99	89.84
3909	J-2122	857.25	Forest	0.48	1064.97	89.87
5426	J-2887	845.28	Forest	0.08	1053.03	89.88
1741	J-887	847.54	Forest	0.68	1055.31	89.89
1703	J-862	844.00	Forest	0.08	1051.84	89.92
3257	J-1770	845.14	Forest	1.68	1053.03	89.94
2786	J-1508	756.04	Forest	1.08	963.95	89.95
6097	J-3271	846.07	Forest	0.28	1053.99	89.96
722	J-416	844.00	Forest	0.08	1051.96	89.97
6961	J-3781	849.43	Forest	0.08	1057.40	89.98
4918	J-2594	845.00	Forest	2.09	1053.02	90.00
3372	J-1835	856.87	Forest	1.08	1064.93	90.02
4413	J-2317	845.93	Forest	0.88	1054.00	90.02
5818	J-3112	851.70	Forest	0.28	1059.77	90.02
1144	J-605	844.89	Forest	0.28	1053.00	90.04
6008	J-3217	854.10	Forest	0.48	1062.25	90.06
1849	J-956	843.78	Forest	0.48	1051.96	90.07
7538	J-4043	845.02	Forest	0.48	1053.22	90.08
2381	J-1278	856.73	Forest	0.08	1064.94	90.08
3527	J-1923	847.79	Forest	0.28	1056.05	90.11
4219	J-2255	848.45	Forest	0.68	1056.78	90.13
5216	J-2764	843.86	Forest	0.08	1052.20	90.14
820	J-464	843.59	Forest	0.28	1051.96	90.15
1850	J-957	843.55	Forest	0.88	1051.96	90.17
5315	J-2822	843.40	Forest	0.88	1051.84	90.18
1204	J-631	844.54	Forest	0.08	1052.99	90.19
3566	J-1944	852.92	Forest	0.48	1061.38	90.19
6793	J-3683	856.45	Forest	0.08	1064.93	90.20
421	J-233	843.39	Forest	0.28	1051.96	90.24
6059	J-3248	843.38	Forest	0.08	1052.00	90.26
5314	J-2821	843.20	Forest	1.28	1051.84	90.27
6844	J-3713	844.00	Forest	1.28	1052.71	90.30
6846	J-3714	856.19	Forest	0.48	1064.93	90.31
3087	J-1666	847.88	Forest	0.48	1056.64	90.32
5215	J-2763	843.41	Forest	0.28	1052.20	90.33
420	J-232	843.14	Forest	0.08	1051.96	90.34
2834	J-1535	843.89	Forest	0.88	1052.71	90.35
4638	J-2438	1114.07	Stewartsville	0.26	1322.91	90.35
1704	J-863	842.98	Forest	0.48	1051.84	90.37
2831	J-1533	847.89	Forest	0.48	1056.78	90.37
6897	J-3744	755.04	Forest	0.08	963.94	90.38
5803	J-3104	843.96	Forest	0.68	1052.87	90.39
1918	J-1001	845.31	Forest	0.48	1054.24	90.39
5802	J-3103	843.94	Forest	0.48	1052.87	90.39

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
8500	J-4203	845.04	Forest	0.48	1053.99	90.40
6526	J-3524	847.07	Forest	1.48	1056.05	90.42
1887	J-981	844.00	Forest	0.48	1052.99	90.42
4038	J-2179	844.01	Forest	2.09	1053.00	90.42
3625	J-1976	855.90	Forest	0.08	1064.93	90.44
7160	J-3893	846.98	Forest	0.08	1056.05	90.46
6852	J-3717	842.89	Forest	0.28	1051.96	90.46
3086	J-1665	847.55	Forest	0.48	1056.64	90.46
5446	J-2898	846.22	Forest	0.28	1055.31	90.46
1665	J-837	844.05	Forest	0.28	1053.16	90.47
459	J-257	1008.92	Lakes	0.29	1218.02	90.47
2919	J-1579	843.36	Forest	2.49	1052.51	90.49
4720	J-2482	843.85	Forest	0.08	1053.00	90.49
1720	J-873	842.77	Forest	0.48	1051.96	90.51
2158	J-1146	843.84	Forest	0.08	1053.03	90.51
3226	J-1750	850.11	Forest	0.08	1059.33	90.52
5687	J-3036	847.43	Forest	0.88	1056.69	90.54
3227	J-1751	850.04	Forest	0.28	1059.33	90.55
2260	J-1208	845.96	Forest	1.08	1055.31	90.58
2878	J-1559	842.56	Forest	0.48	1051.96	90.60
6787	J-3679	848.00	Forest	0.08	1057.43	90.61
6788	J-3680	848.00	Forest	0.48	1057.43	90.61
4127	J-2218	848.00	Forest	1.28	1057.43	90.61
840	J-474	847.23	Forest	0.28	1056.69	90.63
5003	J-2644	851.63	Forest	0.08	1061.13	90.64
4069	J-2194	846.98	Forest	0.28	1056.64	90.71
3846	J-2092	844.32	Forest	1.08	1053.99	90.72
3838	J-2087	754.24	Forest	0.48	963.95	90.73
234	J-112	1113.09	Stewartsville	0.11	1322.91	90.78
5265	J-2793	843.13	Forest	0.08	1053.00	90.80
235	J-113	1113.01	Stewartsville	0.11	1322.91	90.81
5243	J-2781	846.81	Forest	1.88	1056.80	90.85
5959	J-3190	753.96	Forest	0.08	963.95	90.85
5009	J-2647	842.98	Forest	0.28	1053.00	90.86
5010	J-2648	842.96	Forest	1.08	1053.00	90.87
5242	J-2780	846.75	Forest	1.68	1056.80	90.88
3888	J-2112	842.92	Forest	0.88	1052.99	90.89
7206	J-3913	841.75	Forest	1.28	1051.84	90.90
439	J-244	847.14	Forest	0.08	1057.33	90.94
4485	J-2349	841.57	Forest	0.48	1051.84	90.98
4486	J-2350	841.54	Forest	0.28	1051.84	90.99
991	J-543	850.74	Forest	0.68	1061.13	91.03
6140	J-3297	847.08	Forest	0.08	1057.48	91.03
3567	J-1945	850.95	Forest	1.88	1061.38	91.04
6413	J-3459	851.43	Forest	0.08	1061.88	91.05
5022	J-2655	842.54	Forest	0.68	1052.99	91.05
4328	J-2289	841.45	Forest	1.28	1052.04	91.11
7726	J-4100	854.36	Forest	0.28	1064.97	91.12
486	J-272	841.30	Forest	1.08	1051.96	91.14
440	J-245	846.54	Forest	0.48	1057.33	91.20
487	J-273	841.09	Forest	0.28	1051.96	91.23
1740	J-886	844.44	Forest	0.28	1055.31	91.24
1731	J-880	844.35	Forest	0.48	1055.31	91.27
5039	J-2665	840.73	Forest	2.89	1051.74	91.30
2590	J-1391	850.85	Forest	0.48	1061.88	91.30
5439	J-2894	841.60	Forest	0.48	1052.64	91.31
7533	J-4041	841.95	Forest	0.08	1053.00	91.31
6139	J-3296	846.41	Forest	2.49	1057.48	91.32
276	J-140	846.04	Forest	2.09	1057.13	91.33
3221	J-1747	1006.92	Lakes	0.20	1218.04	91.34
258	J-128	846.16	Forest	0.08	1057.32	91.36
458	J-256	1006.82	Lakes	0.20	1218.04	91.38
5621	J-2997	845.91	Forest	0.08	1057.13	91.38
780	J-444	840.72	Forest	0.08	1051.96	91.39
259	J-129	846.09	Forest	0.08	1057.32	91.39
6412	J-3458	850.63	Forest	0.48	1061.88	91.39
553	J-315	840.77	Forest	1.88	1052.04	91.40
1472	J-738	841.17	Forest	0.08	1052.45	91.41
5040	J-2666	840.42	Forest	0.48	1051.74	91.43
299	J-154	845.92	Forest	0.08	1057.32	91.46
4148	J-2228	850.22	Forest	1.08	1061.63	91.47
5021	J-2654	841.54	Forest	0.48	1052.99	91.49
275	J-139	845.67	Forest	0.88	1057.13	91.49
838	J-473	840.35	Forest	0.08	1051.96	91.55
6429	J-3468	840.31	Forest	0.28	1051.96	91.57
3528	J-1924	844.36	Forest	0.48	1056.05	91.59
806	J-457	840.18	Forest	0.48	1051.96	91.63
165	J-81	848.94	Forest	1.28	1060.72	91.63
5440	J-2895	840.81	Forest	0.28	1052.64	91.65
500	J-281	839.99	Forest	0.28	1051.96	91.71
4525	J-2372	839.88	Forest	0.08	1051.98	91.76
4524	J-2371	839.87	Forest	1.28	1051.98	91.77
962	J-529	840.69	Forest	0.28	1052.88	91.80
4093	J-2205	839.77	Forest	0.68	1052.04	91.84
6117	J-3283	1006.03	Lakes	0.20	1218.34	91.86
5557	J-2960	848.26	Forest	2.09	1060.72	91.92
5551	J-2957	844.47	Forest	0.48	1056.96	91.93
2944	J-1591	844.45	Forest	0.08	1056.96	91.94
2211	J-1179	751.36	Forest	0.48	963.95	91.98
5558	J-2961	848.00	Forest	1.28	1060.72	92.03
1884	J-979	852.19	Forest	0.88	1064.92	92.04
6116	J-3282	1005.54	Lakes	0.20	1218.34	92.07
1272	J-660	1005.77	Lakes	0.20	1218.61	92.09
6704	J-3630	840.39	Forest	0.48	1053.24	92.09
3178	J-1721	840.12	Forest	0.08	1053.00	92.10
3177	J-1720	840.11	Forest	0.68	1053.00	92.11
1276	J-662	852.00	Forest	0.28	1064.94	92.13
5468	J-2911	852.00	Forest	0.08	1064.94	92.13
4065	J-2192	841.05	Forest	0.68	1053.99	92.13

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
187	J-90	841.66	Forest	1.48	1054.63	92.14
1821	J-938	840.01	Forest	0.68	1053.00	92.15
1804	J-927	851.85	Forest	1.08	1064.86	92.16
7046	J-3829	750.91	Forest	1.28	963.94	92.17
5991	J-3208	1005.46	Lakes	0.20	1218.61	92.22
3122	J-1688	843.29	Forest	0.28	1056.68	92.32
2081	J-1099	851.34	Forest	0.08	1064.97	92.43
6593	J-3564	838.86	Forest	0.08	1052.51	92.44
627	J-360	838.29	Forest	0.08	1051.95	92.44
6705	J-3631	839.58	Forest	0.08	1053.24	92.44
3546	J-1933	750.24	Forest	2.69	963.94	92.46
6019	J-3223	839.12	Forest	0.08	1052.88	92.48
2141	J-1136	844.03	Forest	0.48	1057.97	92.56
3829	J-2083	749.89	Forest	0.88	963.94	92.61
90	J-41	842.63	Forest	0.28	1056.68	92.61
2591	J-1392	847.72	Forest	0.68	1061.87	92.65
5849	J-3129	1004.32	Lakes	0.20	1218.50	92.66
7113	J-3867	843.77	Forest	0.28	1057.97	92.68
6594	J-3565	838.27	Forest	0.28	1052.51	92.69
1129	J-598	840.00	Forest	0.48	1054.37	92.75
5136	J-2719	840.00	Forest	0.08	1054.37	92.75
4453	J-2330	843.58	Forest	0.48	1057.97	92.75
4454	J-2331	843.55	Forest	0.48	1057.97	92.77
6020	J-3224	838.45	Forest	0.08	1052.88	92.77
762	J-435	837.64	Forest	0.28	1052.09	92.78
6898	J-3745	749.48	Forest	0.28	963.94	92.79
1143	J-604	838.54	Forest	0.48	1053.00	92.79
4958	J-2618	842.81	Forest	0.28	1057.29	92.79
247	J-121	838.47	Forest	0.08	1052.99	92.81
682	J-393	842.26	Forest	1.28	1056.82	92.83
552	J-314	837.39	Forest	0.88	1052.04	92.87
6184	J-3322	1108.28	Stewartsville	0.11	1322.98	92.89
4646	J-2442	838.24	Forest	0.08	1052.99	92.91
246	J-120	838.23	Forest	0.48	1052.99	92.92
5787	J-3094	838.21	Forest	0.08	1053.00	92.93
1560	J-775	1003.69	Lakes	0.20	1218.50	92.94
6596	J-3566	837.23	Forest	0.28	1052.09	92.96
7175	J-3899	849.94	Forest	0.48	1064.94	93.02
1008	J-551	836.97	Forest	0.88	1052.04	93.05
4957	J-2617	842.21	Forest	0.28	1057.29	93.05
2382	J-1279	849.83	Forest	0.48	1064.94	93.07
5979	J-3201	837.85	Forest	0.08	1052.99	93.08
6943	J-3771	838.75	Forest	0.88	1053.99	93.12
8114	J-4168	837.36	Forest	0.28	1052.68	93.16
5448	J-2899	837.24	Forest	0.48	1052.66	93.20
6662	J-3605	849.42	Forest	0.88	1064.91	93.24
7761	J-4108	841.74	Forest	1.08	1057.29	93.26
1565	J-777	1002.88	Lakes	0.20	1218.43	93.26
3216	J-1744	837.45	Forest	0.88	1053.00	93.26
389	J-212	837.32	Forest	0.08	1052.88	93.26
1679	J-846	836.17	Forest	0.08	1051.83	93.31
4682	J-2462	748.27	Forest	0.88	963.94	93.31
3547	J-1934	748.27	Forest	0.88	963.94	93.31
353	J-189	1107.30	Stewartsville	0.40	1322.98	93.32
352	J-188	1107.22	Stewartsville	0.11	1322.98	93.35
1242	J-649	837.13	Forest	0.08	1052.99	93.39
3217	J-1745	837.10	Forest	0.68	1053.00	93.41
5182	J-2745	835.91	Forest	0.68	1051.83	93.42
2791	J-1511	836.72	Forest	0.08	1052.66	93.43
6663	J-3606	848.87	Forest	0.88	1064.91	93.47
2500	J-1341	836.94	Forest	1.68	1053.01	93.48
5805	J-3105	1002.35	Lakes	0.20	1218.43	93.49
6954	J-3777	835.74	Forest	0.08	1051.96	93.55
1680	J-847	835.60	Forest	1.48	1051.84	93.56
390	J-213	836.63	Forest	0.08	1052.88	93.56
2460	J-1319	836.63	Forest	0.68	1053.01	93.62
7802	J-4121	835.58	Forest	0.28	1051.96	93.62
5942	J-3181	835.52	Forest	0.48	1051.96	93.64
5941	J-3180	835.51	Forest	0.48	1051.96	93.65
8511	J-4208	836.00	Forest	0.08	1052.51	93.68
2461	J-1320	836.49	Forest	0.88	1053.01	93.68
2109	J-1115	835.28	Forest	1.48	1051.97	93.75
5748	J-3072	842.00	Forest	0.08	1058.71	93.76
1080	J-581	1001.64	Lakes	0.20	1218.65	93.89
2123	J-1124	834.87	Forest	0.88	1051.98	93.93
5610	J-2991	847.72	Forest	0.88	1064.91	93.97
152	J-74	841.48	Forest	0.48	1058.71	93.99
1714	J-869	835.64	Forest	0.88	1053.03	94.05
4769	J-2510	847.57	Forest	0.68	1064.97	94.06
6528	J-3525	1001.15	Lakes	0.20	1218.65	94.10
1580	J-784	842.35	Forest	0.68	1059.86	94.10
1743	J-888	847.38	Forest	0.88	1064.91	94.12
6660	J-3604	835.34	Forest	0.28	1052.99	94.17
1579	J-783	842.20	Forest	0.88	1059.86	94.17
4768	J-2509	847.21	Forest	0.28	1064.97	94.21
3880	J-2108	834.19	Forest	1.68	1052.03	94.25
7025	J-3818	847.04	Forest	0.08	1064.94	94.28
656	J-378	839.39	Forest	0.08	1057.32	94.29
3385	J-1841	833.91	Forest	0.48	1051.95	94.33
7225	J-3923	834.93	Forest	0.08	1053.01	94.35
30	J-2	839.47	Forest	0.08	1057.56	94.36
8203	J-4170	834.82	Forest	2.29	1053.01	94.40
6929	J-3763	745.65	Forest	0.08	963.95	94.45
5412	J-2879	834.63	Forest	0.28	1053.01	94.48
1805	J-928	846.44	Forest	0.48	1064.86	94.50
5629	J-3002	833.85	Forest	0.68	1052.36	94.54
6055	J-3245	834.15	Forest	1.08	1052.74	94.57
1923	J-1004	833.17	Forest	0.88	1051.83	94.60
7148	J-3886	834.06	Forest	0.08	1052.72	94.61

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7149	J-3887	834.03	Forest	0.88	1052.72	94.62
6372	J-3435	998.98	Lakes	0.20	1217.72	94.64
1250	J-651	998.91	Lakes	0.29	1217.72	94.67
4133	J-2222	842.62	Forest	2.69	1061.45	94.68
5250	J-2785	842.62	Forest	0.48	1061.45	94.68
6056	J-3246	833.82	Forest	0.48	1052.74	94.72
5630	J-3003	833.41	Forest	0.08	1052.36	94.73
2730	J-1474	834.41	Forest	0.88	1053.48	94.78
121	J-58	843.26	Forest	0.08	1062.37	94.80
1753	J-895	838.26	Forest	0.88	1057.52	94.87
2122	J-1123	832.70	Forest	0.88	1051.98	94.87
8062	J-4163	833.23	Forest	3.32	1052.56	94.89
7548	J-4047	832.98	Forest	0.48	1052.38	94.92
3484	J-1898	833.53	Forest	1.28	1052.99	94.95
7186	J-3903	845.35	Forest	0.28	1064.94	95.00
1031	J-560	832.58	Forest	0.28	1052.18	95.01
4407	J-2315	833.39	Forest	0.68	1052.99	95.01
1822	J-939	833.37	Forest	0.68	1053.00	95.02
4008	J-2167	833.06	Forest	0.88	1052.72	95.04
7054	J-3834	1103.19	Stewartsville	0.11	1322.91	95.06
5076	J-2687	832.37	Forest	0.28	1052.18	95.10
2857	J-1548	832.24	Forest	0.68	1052.13	95.14
325	J-171	833.08	Forest	0.08	1053.01	95.15
2896	J-1569	743.99	Forest	0.88	963.94	95.16
7551	J-4048	832.32	Forest	0.88	1052.38	95.21
7602	J-4062	997.85	Lakes	0.37	1218.02	95.26
7204	J-3912	837.06	Forest	0.48	1057.32	95.30
6408	J-3456	840.00	Forest	0.48	1060.27	95.30
2372	J-1273	844.65	Forest	0.08	1064.94	95.31
324	J-170	832.70	Forest	0.08	1053.01	95.32
171	J-85	839.89	Forest	0.08	1060.27	95.35
8506	J-4206	831.54	Forest	0.48	1051.96	95.36
662	J-382	836.29	Forest	1.48	1056.80	95.41
7953	J-4151	831.26	Forest	1.68	1051.84	95.43
2384	J-1280	844.36	Forest	0.28	1064.94	95.43
1349	J-687	836.67	Forest	0.08	1057.32	95.47
3593	J-1960	835.94	Forest	1.68	1056.78	95.55
3667	J-1999	844.01	Forest	0.28	1064.86	95.55
3666	J-1998	844.00	Forest	1.08	1064.87	95.56
7394	J-3990	844.00	Forest	0.08	1064.93	95.59
7395	J-3991	844.00	Forest	0.48	1064.93	95.59
4023	J-2173	832.05	Forest	1.48	1052.99	95.59
6155	J-3305	838.78	Forest	0.68	1059.76	95.61
3957	J-2144	835.78	Forest	2.49	1056.79	95.62
2140	J-1135	836.96	Forest	0.68	1057.97	95.62
6930	J-3764	742.90	Forest	0.08	963.95	95.64
1890	J-983	831.40	Forest	0.88	1052.50	95.66
2108	J-1114	830.80	Forest	0.48	1051.97	95.69
1722	J-874	830.79	Forest	0.08	1051.97	95.70
5195	J-2752	838.45	Forest	1.88	1059.68	95.71
527	J-299	1101.56	Stewartsville	0.11	1322.91	95.77
29	J-1	836.20	Forest	1.48	1057.56	95.77
6877	J-3732	832.00	Forest	1.28	1053.45	95.81
6878	J-3733	832.00	Forest	0.48	1053.45	95.81
5529	J-2945	830.73	Forest	0.28	1052.20	95.82
5967	J-3194	843.37	Forest	0.28	1064.86	95.83
2917	J-1578	801.33	Lakes	0.37	1022.87	95.85
7649	J-4078	835.75	Forest	0.08	1057.32	95.87
321	J-168	1101.30	Stewartsville	0.11	1322.91	95.88
2089	J-1102	996.40	Lakes	0.46	1218.02	95.89
4560	J-2392	996.38	Lakes	0.20	1218.02	95.89
4222	J-2257	838.03	Forest	0.28	1059.68	95.90
4561	J-2393	996.30	Lakes	0.20	1218.02	95.93
2085	J-1100	996.29	Lakes	0.63	1218.02	95.93
2086	J-1101	996.29	Lakes	0.46	1218.02	95.93
3485	J-1899	831.19	Forest	0.08	1052.99	95.96
1752	J-894	835.68	Forest	0.88	1057.53	95.98
4596	J-2414	829.91	Forest	0.48	1051.85	96.02
5649	J-3014	831.02	Forest	0.08	1052.99	96.04
526	J-298	1100.91	Stewartsville	0.26	1322.91	96.05
3664	J-1997	837.69	Forest	1.08	1059.75	96.08
4595	J-2413	829.69	Forest	0.48	1051.85	96.12
2727	J-1472	829.69	Forest	0.48	1051.85	96.12
1331	J-683	830.71	Forest	0.08	1052.99	96.17
170	J-84	837.57	Forest	0.08	1059.87	96.18
4116	J-2214	837.40	Forest	1.08	1059.76	96.20
1055	J-571	1100.54	Stewartsville	0.55	1322.91	96.21
3447	J-1876	834.87	Forest	0.48	1057.28	96.23
5001	J-2643	837.44	Forest	1.68	1059.87	96.24
5530	J-2946	829.72	Forest	0.08	1052.20	96.25
1744	J-889	842.41	Forest	0.48	1064.91	96.26
6150	J-3302	741.42	Forest	1.48	963.94	96.27
626	J-359	829.31	Forest	0.48	1051.95	96.32
1990	J-1048	842.24	Forest	0.68	1064.92	96.34
322	J-169	1100.18	Stewartsville	0.40	1322.91	96.37
4943	J-2609	1100.05	Stewartsville	0.11	1322.91	96.42
2389	J-1283	842.07	Forest	0.08	1064.94	96.42
827	J-468	1100.00	Stewartsville	0.11	1322.91	96.44
5965	J-3193	1100.00	Stewartsville	0.26	1322.91	96.44
2758	J-1491	842.00	Forest	1.28	1064.93	96.45
1723	J-875	828.92	Forest	0.48	1051.97	96.51
3767	J-2053	836.70	Forest	0.48	1059.77	96.51
5126	J-2714	837.99	Forest	0.08	1061.12	96.54
933	J-515	837.94	Forest	0.48	1061.12	96.56
648	J-373	839.06	Forest	0.68	1062.40	96.63
5657	J-3019	838.02	Forest	1.28	1061.37	96.64
6462	J-3487	1099.61	Stewartsville	0.26	1322.98	96.64
6295	J-3389	836.36	Forest	0.88	1059.77	96.66
6041	J-3236	829.22	Forest	0.48	1052.72	96.70

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7608	J-4064	828.91	Forest	0.48	1052.51	96.74
7619	J-4069	829.74	Forest	0.88	1053.42	96.77
6818	J-3697	833.57	Forest	0.48	1057.29	96.79
6819	J-3698	833.57	Forest	0.48	1057.29	96.79
1715	J-870	829.28	Forest	0.68	1053.02	96.80
3626	J-1977	841.17	Forest	0.88	1064.93	96.81
715	J-411	1099.21	Stewartsville	0.26	1322.98	96.81
1466	J-735	828.78	Forest	4.36	1052.56	96.82
5658	J-3020	837.59	Forest	0.68	1061.37	96.82
5705	J-3047	833.99	Forest	0.08	1057.78	96.82
529	J-300	833.89	Forest	0.08	1057.78	96.86
359	J-193	833.82	Forest	0.08	1057.78	96.90
818	J-463	835.72	Forest	0.48	1059.77	96.94
6042	J-3237	828.65	Forest	0.88	1052.72	96.94
358	J-192	833.70	Forest	0.08	1057.78	96.95
430	J-239	837.59	Forest	0.08	1061.76	96.99
2767	J-1496	835.53	Forest	1.08	1059.75	97.01
3448	J-1877	832.92	Forest	0.08	1057.28	97.07
4690	J-2466	840.55	Forest	0.28	1064.93	97.08
6448	J-3479	835.39	Forest	1.28	1059.77	97.08
3955	J-2143	836.98	Forest	0.68	1061.38	97.09
1889	J-982	827.92	Forest	0.68	1052.51	97.17
5162	J-2734	827.94	Forest	0.68	1052.54	97.17
7284	J-3950	832.72	Forest	0.08	1057.32	97.17
785	J-447	827.25	Forest	0.08	1051.96	97.22
5477	J-2916	832.53	Forest	0.88	1057.28	97.24
5163	J-2735	827.77	Forest	0.28	1052.54	97.24
798	J-453	1098.06	Stewartsville	0.55	1322.91	97.28
1005	J-549	839.99	Forest	0.68	1064.93	97.32
429	J-238	836.77	Forest	0.08	1061.76	97.34
5352	J-2844	831.75	Forest	0.48	1056.78	97.36
7126	J-3874	834.94	Forest	0.08	1059.99	97.37
6639	J-3592	839.83	Forest	0.48	1064.93	97.39
6618	J-3579	827.85	Forest	1.08	1052.99	97.41
7127	J-3875	834.84	Forest	0.48	1059.99	97.41
7283	J-3949	832.13	Forest	0.08	1057.32	97.43
2446	J-1311	832.00	Forest	0.88	1057.25	97.46
2357	J-1264	839.60	Forest	0.88	1064.91	97.48
2524	J-1354	831.44	Forest	1.08	1056.78	97.49
7229	J-3925	839.58	Forest	0.08	1064.94	97.50
6151	J-3303	738.52	Forest	0.88	963.94	97.53
5643	J-3010	992.50	Lakes	0.20	1218.02	97.58
2447	J-1312	831.60	Forest	2.29	1057.25	97.63
4022	J-2172	827.26	Forest	0.48	1052.99	97.66
7033	J-3822	835.99	Forest	0.08	1061.76	97.68
2572	J-1381	825.95	Forest	0.08	1051.98	97.79
3594	J-1961	830.56	Forest	0.88	1056.78	97.88
7588	J-4057	833.74	Forest	0.48	1059.99	97.89
2053	J-1087	991.65	Lakes	1.09	1218.03	97.95
4255	J-2265	826.17	Forest	1.48	1052.62	97.97
5174	J-2741	991.52	Lakes	0.37	1218.03	98.00
6424	J-3465	825.44	Forest	0.08	1051.98	98.01
980	J-537	825.44	Forest	0.28	1052.04	98.04
661	J-381	830.18	Forest	0.08	1056.81	98.05
2835	J-1536	826.07	Forest	1.48	1052.71	98.06
5816	J-3111	825.54	Forest	0.48	1052.33	98.12
5644	J-3011	991.12	Lakes	0.20	1218.02	98.17
7369	J-3981	838.02	Forest	0.08	1064.93	98.17
1069	J-577	833.27	Forest	0.08	1060.22	98.19
1614	J-806	824.90	Forest	0.68	1051.98	98.24
2371	J-1272	837.85	Forest	0.88	1064.94	98.25
3336	J-1815	829.57	Forest	0.48	1056.79	98.30
2149	J-1141	832.53	Forest	0.88	1059.76	98.31
2525	J-1355	829.53	Forest	0.08	1056.78	98.32
6777	J-3673	828.70	Forest	0.88	1055.97	98.33
1852	J-958	829.49	Forest	0.08	1056.79	98.34
4161	J-2234	837.47	Forest	0.48	1064.93	98.41
3410	J-1855	824.57	Forest	0.08	1052.04	98.41
6776	J-3672	828.49	Forest	0.88	1055.97	98.42
5815	J-3110	824.82	Forest	1.28	1052.33	98.43
3297	J-1794	837.37	Forest	0.08	1064.93	98.45
1061	J-574	825.45	Forest	0.88	1053.00	98.45
4688	J-2465	824.48	Forest	0.48	1052.04	98.45
2476	J-1328	824.37	Forest	0.68	1051.98	98.47
2387	J-1282	837.32	Forest	0.68	1064.94	98.48
4786	J-2519	824.33	Forest	0.08	1051.96	98.48
1613	J-805	824.19	Forest	0.08	1051.98	98.55
7096	J-3857	832.36	Forest	0.08	1060.22	98.59
4860	J-2561	829.40	Forest	0.08	1057.29	98.60
5488	J-2922	837.03	Forest	0.68	1064.93	98.60
6580	J-3567	829.42	Forest	0.08	1057.32	98.60
4787	J-2520	824.02	Forest	0.28	1051.96	98.62
4650	J-2444	825.01	Forest	0.68	1053.00	98.64
4859	J-2560	829.16	Forest	0.28	1057.29	98.70
1808	J-930	832.00	Forest	0.48	1060.15	98.71
1807	J-929	832.00	Forest	0.88	1060.15	98.71
5090	J-2694	828.61	Forest	0.48	1056.79	98.72
7258	J-3939	836.59	Forest	0.08	1064.94	98.80
2435	J-1305	823.55	Forest	0.08	1051.98	98.83
3357	J-1827	828.33	Forest	1.68	1056.79	98.84
4692	J-2467	828.30	Forest	0.08	1056.81	98.87
5206	J-2758	735.07	Forest	0.28	963.95	99.03
7049	J-3831	823.04	Forest	1.08	1052.02	99.07
2052	J-1086	989.06	Lakes	0.29	1218.03	99.07
7368	J-3980	835.90	Forest	0.08	1064.93	99.09
7454	J-4011	823.06	Forest	0.48	1052.09	99.09
2538	J-1362	1093.83	Stewartsville	0.26	1322.91	99.11
3996	J-2161	822.94	Forest	2.09	1052.03	99.12
3146	J-1703	734.85	Forest	0.48	963.95	99.12

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3345	J-1820	827.66	Forest	0.28	1056.82	99.14
3599	J-1964	827.61	Forest	0.88	1056.78	99.15
3563	J-1943	988.85	Lakes	1.81	1218.03	99.16
4095	J-2206	829.70	Forest	1.28	1059.01	99.21
6579	J-3566	827.98	Forest	0.08	1057.32	99.23
106	J-51	827.41	Forest	0.08	1056.82	99.25
3145	J-1702	734.47	Forest	0.08	963.95	99.28
1554	J-772	988.55	Lakes	4.18	1218.07	99.30
2148	J-1140	830.21	Forest	0.08	1059.76	99.31
716	J-412	1093.41	Stewartsville	0.11	1322.98	99.32
6872	J-3729	822.38	Forest	0.28	1051.96	99.33
6873	J-3730	822.35	Forest	0.08	1051.96	99.34
4249	J-2264	827.82	Forest	1.68	1057.53	99.38
5340	J-2837	830.01	Forest	0.48	1059.74	99.39
6182	J-3321	832.65	Forest	0.48	1062.40	99.40
1593	J-792	822.18	Forest	0.08	1051.98	99.42
3779	J-2059	734.14	Forest	4.50	963.93	99.42
6229	J-3350	829.19	Forest	0.08	1059.01	99.43
5660	J-3021	822.23	Forest	0.68	1052.09	99.45
7155	J-3890	1093.10	Stewartsville	0.11	1322.98	99.45
2667	J-1436	830.27	Forest	0.08	1060.15	99.46
3285	J-1787	827.63	Forest	1.68	1057.53	99.46
8088	J-4167	821.93	Forest	0.88	1051.83	99.47
6721	J-3640	988.14	Lakes	0.20	1218.07	99.48
3840	J-2088	821.89	Forest	0.88	1051.85	99.49
6723	J-3641	830.19	Forest	0.48	1060.15	99.49
1901	J-990	821.76	Forest	0.88	1051.83	99.54
4068	J-2193	826.56	Forest	0.08	1056.64	99.55
1594	J-793	821.87	Forest	0.88	1051.98	99.56
7048	J-3830	821.90	Forest	0.88	1052.02	99.56
5652	J-3016	988.09	Lakes	0.20	1218.27	99.59
874	J-491	834.75	Forest	0.48	1064.94	99.59
5651	J-3015	988.00	Lakes	0.37	1218.27	99.63
5661	J-3022	821.72	Forest	1.48	1052.09	99.67
5665	J-3024	826.26	Forest	0.48	1056.64	99.68
6682	J-3617	822.81	Forest	0.88	1053.22	99.69
5290	J-2807	827.10	Forest	0.28	1057.53	99.69
2994	J-1614	826.71	Forest	0.28	1057.16	99.70
6260	J-3369	827.46	Forest	0.48	1057.97	99.73
6228	J-3349	828.47	Forest	1.48	1059.01	99.74
7386	J-3988	829.60	Forest	0.48	1060.15	99.75
4473	J-2342	829.43	Forest	0.48	1059.99	99.76
2009	J-1060	829.13	Forest	0.88	1059.74	99.77
2536	J-1361	821.23	Forest	0.08	1051.98	99.83
4474	J-2343	829.23	Forest	0.08	1059.99	99.84
5367	J-2853	826.73	Forest	0.08	1057.53	99.86
6422	J-3464	826.20	Forest	0.28	1057.00	99.86
1882	J-978	821.03	Forest	0.08	1051.84	99.86
6261	J-3370	827.13	Forest	1.08	1057.97	99.87
2156	J-1145	827.12	Forest	0.08	1057.97	99.88
2892	J-1567	733.09	Forest	4.28	963.95	99.88
3305	J-1798	828.84	Forest	0.08	1059.76	99.91
5185	J-2747	825.85	Forest	0.88	1056.79	99.91
5263	J-2792	1092.00	Stewartsville	0.11	1322.94	99.92
5366	J-2852	826.56	Forest	0.08	1057.53	99.93
6345	J-3419	828.70	Forest	0.48	1059.76	99.97
3870	J-2102	828.63	Forest	0.88	1059.76	100.00
1196	J-626	1091.74	Stewartsville	0.11	1322.94	100.03
1853	J-959	825.45	Forest	2.49	1056.74	100.07
2928	J-1584	821.10	Forest	1.28	1052.46	100.10
1846	J-954	826.17	Forest	0.08	1057.53	100.10
2564	J-1377	833.56	Forest	0.08	1064.93	100.10
2645	J-1424	821.82	Forest	0.48	1053.22	100.12
4374	J-2303	821.58	Forest	0.08	1052.99	100.12
5184	J-2746	825.37	Forest	0.68	1056.79	100.12
2832	J-1534	825.28	Forest	1.28	1056.78	100.16
117	J-56	825.48	Forest	0.08	1057.00	100.17
5719	J-3055	825.72	Forest	0.48	1057.33	100.21
1007	J-550	820.29	Forest	0.48	1052.04	100.26
1177	J-617	821.26	Forest	0.28	1053.01	100.27
5027	J-2658	829.34	Forest	0.48	1061.13	100.28
901	J-504	829.32	Forest	0.08	1061.13	100.29
2222	J-1186	828.08	Forest	0.08	1059.99	100.34
7639	J-4075	820.08	Forest	0.08	1052.03	100.35
1810	J-931	820.52	Forest	0.48	1052.51	100.37
2684	J-1446	820.53	Forest	0.48	1052.56	100.39
5566	J-2966	820.93	Forest	0.08	1052.99	100.40
4540	J-2380	820.93	Forest	2.69	1053.01	100.41
2120	J-1122	827.67	Forest	0.68	1059.76	100.41
4882	J-2573	820.31	Forest	0.08	1052.46	100.44
1141	J-603	820.39	Forest	0.08	1052.56	100.45
1333	J-684	825.14	Forest	0.48	1057.33	100.46
5416	J-2881	825.07	Forest	0.08	1057.32	100.48
1410	J-703	819.77	Forest	0.08	1052.04	100.49
4883	J-2574	820.17	Forest	0.88	1052.46	100.50
5567	J-2967	820.67	Forest	0.08	1052.99	100.51
6537	J-3530	827.66	Forest	0.48	1059.99	100.52
4541	J-2381	820.67	Forest	0.28	1053.01	100.52
4170	J-2238	832.45	Forest	0.48	1064.88	100.56
6966	J-3784	819.39	Forest	0.28	1051.95	100.62
8521	J-4212	832.00	Forest	0.68	1064.91	100.77
4667	J-2453	820.00	Forest	2.09	1053.00	100.81
4668	J-2454	820.00	Forest	0.88	1053.00	100.81
7135	J-3879	819.89	Forest	0.08	1052.99	100.85
6483	J-3499	831.78	Forest	0.08	1064.92	100.87
154	J-75	825.26	Forest	1.48	1058.40	100.87
3633	J-1981	818.88	Forest	0.88	1052.03	100.87
4575	J-2401	819.70	Forest	0.08	1052.99	100.93
7812	J-4123	818.80	Forest	0.48	1052.09	100.93

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4576	J-2402	819.63	Forest	0.48	1052.99	100.96
3520	J-1919	826.33	Forest	0.08	1059.75	100.99
7768	J-4111	824.00	Forest	0.88	1057.53	101.04
6168	J-3313	824.00	Forest	1.68	1057.58	101.06
6169	J-3314	824.00	Forest	0.28	1057.58	101.06
3707	J-2022	819.26	Forest	0.68	1052.99	101.12
6017	J-3222	825.80	Forest	0.08	1059.75	101.22
7350	J-3976	819.11	Forest	0.08	1053.10	101.24
6538	J-3531	825.99	Forest	0.48	1059.99	101.24
6382	J-3441	823.53	Forest	0.28	1057.53	101.24
1271	J-659	984.52	Lakes	0.20	1218.61	101.28
4505	J-2360	818.89	Forest	1.68	1053.01	101.29
4751	J-2500	817.98	Forest	0.08	1052.11	101.30
341	J-181	1088.75	Stewartsville	0.11	1322.91	101.31
4598	J-2415	817.67	Forest	1.08	1051.84	101.31
5867	J-3139	818.79	Forest	0.08	1052.99	101.33
988	J-542	817.90	Forest	0.08	1052.11	101.33
340	J-180	1088.65	Stewartsville	0.11	1322.91	101.36
6381	J-3440	823.26	Forest	0.48	1057.53	101.36
6760	J-3663	818.80	Forest	0.08	1053.10	101.37
1764	J-902	818.18	Forest	0.88	1052.50	101.38
7004	J-3806	822.84	Forest	0.08	1057.16	101.38
4506	J-2361	818.62	Forest	3.09	1053.01	101.41
1701	J-861	817.58	Forest	0.68	1051.97	101.41
4599	J-2416	817.37	Forest	1.28	1051.84	101.44
2790	J-1510	818.16	Forest	1.08	1052.66	101.45
5674	J-3029	817.32	Forest	0.88	1051.86	101.47
5872	J-3142	983.79	Lakes	0.20	1218.61	101.60
4380	J-2306	822.53	Forest	1.48	1057.43	101.63
6759	J-3662	818.17	Forest	0.48	1053.10	101.64
2197	J-1171	825.05	Forest	0.68	1059.99	101.65
5272	J-2797	817.01	Forest	0.48	1052.02	101.68
5271	J-2796	816.71	Forest	0.88	1052.02	101.81
6484	J-3500	829.57	Forest	0.08	1064.92	101.82
2119	J-1121	824.23	Forest	0.88	1059.76	101.90
1772	J-907	816.90	Forest	0.08	1052.51	101.93
2975	J-1604	816.39	Forest	1.08	1052.04	101.95
5895	J-3154	824.04	Forest	0.48	1059.76	101.99
4299	J-2282	817.26	Forest	2.49	1053.00	101.99
7426	J-4002	816.06	Forest	1.68	1051.83	102.01
4002	J-2164	816.08	Forest	0.88	1051.86	102.01
2155	J-1144	822.17	Forest	0.68	1057.97	102.02
7473	J-4018	821.49	Forest	0.68	1057.29	102.02
5743	J-3069	816.13	Forest	0.08	1052.03	102.06
3403	J-1851	823.85	Forest	0.08	1059.76	102.07
3634	J-1982	816.00	Forest	1.88	1052.03	102.12
6176	J-3318	821.08	Forest	0.48	1057.27	102.19
5310	J-2819	816.79	Forest	0.68	1053.00	102.20
6996	J-3801	816.14	Forest	0.08	1052.51	102.26
1071	J-578	820.93	Forest	0.28	1057.32	102.28
1700	J-860	815.53	Forest	0.08	1051.98	102.30
6245	J-3360	824.23	Forest	1.08	1060.72	102.32
822	J-465	815.46	Forest	0.28	1051.95	102.32
6861	J-3722	816.00	Forest	0.08	1052.55	102.34
7474	J-4019	820.70	Forest	0.48	1057.29	102.36
6997	J-3802	815.90	Forest	0.48	1052.51	102.37
7416	J-3998	816.46	Forest	0.48	1053.10	102.38
3412	J-1856	819.92	Forest	0.88	1056.78	102.48
7035	J-3823	815.11	Forest	0.08	1052.02	102.50
1192	J-624	828.00	Forest	0.08	1064.94	102.51
7202	J-3911	828.00	Forest	0.28	1064.94	102.51
2893	J-1568	726.95	Forest	0.48	963.95	102.54
7417	J-3999	816.00	Forest	0.08	1053.10	102.58
3413	J-1857	819.53	Forest	0.68	1056.78	102.65
6246	J-3361	823.47	Forest	0.08	1060.72	102.65
1657	J-832	814.65	Forest	0.88	1051.96	102.67
4379	J-2305	820.09	Forest	2.09	1057.43	102.68
7872	J-4135	814.67	Forest	0.68	1052.02	102.69
3558	J-1940	814.90	Forest	0.08	1052.37	102.74
5005	J-2645	814.88	Forest	0.48	1052.37	102.75
4634	J-2436	814.34	Forest	0.68	1051.83	102.75
2402	J-1290	827.42	Forest	0.28	1064.94	102.76
7932	J-4145	819.51	Forest	0.08	1057.29	102.87
3641	J-1985	821.74	Forest	0.48	1059.75	102.97
4532	J-2376	814.76	Forest	0.08	1052.99	103.07
6862	J-3723	814.27	Forest	0.28	1052.55	103.09
4104	J-2209	818.32	Forest	0.28	1056.64	103.11
4633	J-2435	813.50	Forest	0.48	1051.83	103.12
2103	J-1111	813.64	Forest	0.48	1051.98	103.12
4132	J-2221	822.85	Forest	1.08	1061.38	103.20
7629	J-4071	979.43	Lakes	0.20	1218.02	103.23
7075	J-3846	813.31	Forest	0.08	1051.96	103.25
2771	J-1498	814.29	Forest	1.28	1052.99	103.28
1085	J-583	813.37	Forest	0.08	1052.15	103.31
1608	J-802	813.04	Forest	0.68	1051.96	103.37
1190	J-623	1084.00	Stewartsville	0.11	1322.93	103.38
4855	J-2558	813.16	Forest	0.28	1052.15	103.40
2204	J-1175	820.61	Forest	0.88	1059.75	103.47
7074	J-3845	812.76	Forest	0.08	1051.96	103.49
4154	J-2230	818.08	Forest	0.48	1057.28	103.49
1765	J-903	813.20	Forest	0.88	1052.50	103.53
1600	J-797	812.65	Forest	0.68	1051.96	103.54
6218	J-3343	820.42	Forest	0.48	1059.75	103.54
5771	J-3085	818.09	Forest	0.48	1057.43	103.55
1658	J-833	812.52	Forest	0.88	1051.96	103.59
7036	J-3824	812.56	Forest	0.68	1052.02	103.60
6440	J-3475	978.82	Lakes	0.20	1218.32	103.62
1692	J-855	812.43	Forest	1.88	1051.96	103.63
1583	J-786	820.37	Forest	0.28	1059.99	103.67

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4619	J-2427	1083.27	Stewartsville	3.28	1322.91	103.68
6175	J-3317	817.56	Forest	1.08	1057.27	103.71
586	J-335	1083.16	Stewartsville	0.11	1322.91	103.73
1585	J-787	820.23	Forest	0.28	1059.99	103.73
3119	J-1686	812.75	Forest	0.08	1052.55	103.75
4615	J-2425	811.98	Forest	0.88	1051.85	103.78
1865	J-967	812.63	Forest	0.68	1052.50	103.78
7553	J-4049	812.15	Forest	0.68	1052.02	103.78
1688	J-852	812.04	Forest	0.08	1051.96	103.80
64	J-24	815.00	Forest	0.68	1054.93	103.81
1599	J-796	812.00	Forest	0.08	1051.96	103.82
7124	J-3873	812.00	Forest	0.08	1051.96	103.82
1607	J-801	812.00	Forest	0.08	1051.96	103.82
4945	J-2610	814.92	Forest	0.08	1054.93	103.84
6439	J-3474	978.29	Lakes	0.20	1218.32	103.85
2514	J-1348	811.90	Forest	0.08	1051.96	103.86
4614	J-2424	811.78	Forest	0.28	1051.85	103.87
5234	J-2775	812.42	Forest	0.28	1052.55	103.89
1582	J-785	819.85	Forest	0.08	1059.99	103.90
1881	J-977	811.67	Forest	1.28	1051.83	103.91
1652	J-829	819.82	Forest	0.28	1059.99	103.91
3120	J-1687	812.35	Forest	0.08	1052.55	103.92
190	J-91	820.96	Forest	0.08	1061.19	103.94
1591	J-791	824.69	Forest	0.08	1064.93	103.94
875	J-492	824.52	Forest	0.08	1064.94	104.02
1602	J-798	819.54	Forest	0.08	1059.99	104.03
1171	J-615	977.37	Lakes	0.81	1217.86	104.05
4894	J-2581	1082.41	Stewartsville	0.11	1322.93	104.06
4833	J-2545	811.42	Forest	0.08	1051.96	104.07
4607	J-2420	812.43	Forest	0.08	1052.99	104.08
5739	J-3067	811.28	Forest	0.48	1051.85	104.08
7359	J-3978	811.20	Forest	0.48	1051.85	104.11
4834	J-2546	811.25	Forest	0.08	1051.96	104.15
7677	J-4085	820.00	Forest	0.48	1060.72	104.15
4256	J-2266	811.84	Forest	2.29	1052.62	104.17
5583	J-2975	824.13	Forest	0.28	1064.94	104.18
47	J-13	814.02	Forest	0.68	1054.95	104.24
7346	J-3974	813.87	Forest	0.48	1054.86	104.27
1682	J-848	810.87	Forest	0.88	1051.96	104.31
1590	J-790	823.77	Forest	0.28	1064.93	104.34
3708	J-2023	811.82	Forest	1.88	1052.99	104.34
8481	J-4192	810.78	Forest	0.68	1051.96	104.35
5737	J-3066	810.61	Forest	0.88	1051.82	104.36
3841	J-2089	810.60	Forest	0.88	1051.85	104.38
4384	J-2308	816.00	Forest	0.08	1057.27	104.39
5736	J-3065	810.55	Forest	0.88	1051.82	104.39
799	J-454	1081.58	Stewartsville	0.40	1322.91	104.41
7384	J-3987	976.65	Lakes	0.29	1218.03	104.43
5546	J-2954	1081.52	Stewartsville	0.11	1322.91	104.44
6932	J-3765	976.25	Lakes	0.20	1217.86	104.53
4464	J-2337	823.23	Forest	0.48	1064.94	104.57
7465	J-4016	810.23	Forest	0.08	1051.98	104.59
2902	J-1572	823.02	Forest	0.08	1064.94	104.66
7345	J-3973	812.87	Forest	0.28	1054.86	104.70
1864	J-966	810.49	Forest	1.48	1052.50	104.71
5820	J-3113	818.89	Forest	0.88	1061.19	104.83
8022	J-4159	810.35	Forest	1.08	1052.72	104.86
1683	J-849	809.58	Forest	0.08	1051.96	104.86
2945	J-1592	814.44	Forest	0.68	1056.91	104.91
2586	J-1389	817.22	Forest	1.28	1059.74	104.93
2929	J-1585	809.89	Forest	1.48	1052.45	104.95
1847	J-955	814.95	Forest	0.68	1057.52	104.95
6464	J-3488	976.00	Lakes	0.20	1218.58	104.95
1689	J-853	809.22	Forest	0.88	1051.96	105.02
1691	J-854	809.16	Forest	0.08	1051.97	105.05
6993	J-3799	809.35	Forest	2.09	1052.25	105.09
3758	J-2049	809.13	Forest	0.28	1052.03	105.09
7641	J-4076	809.04	Forest	0.08	1051.96	105.10
6828	J-3703	809.64	Forest	0.68	1052.58	105.11
3557	J-1939	809.23	Forest	0.08	1052.37	105.19
1604	J-799	808.81	Forest	0.08	1051.97	105.20
6795	J-3684	808.73	Forest	0.08	1051.97	105.24
2974	J-1603	808.54	Forest	1.08	1052.03	105.35
4925	J-2598	813.69	Forest	0.08	1057.30	105.40
6829	J-3704	808.95	Forest	0.28	1052.58	105.41
4926	J-2599	813.67	Forest	0.08	1057.30	105.41
1358	J-689	974.91	Lakes	0.20	1218.58	105.42
6831	J-3705	808.12	Forest	0.08	1051.96	105.49
5922	J-3169	974.39	Lakes	0.20	1218.23	105.50
2104	J-1112	807.87	Forest	0.88	1051.98	105.61
6199	J-3331	807.66	Forest	1.08	1051.84	105.65
6994	J-3800	808.05	Forest	0.08	1052.25	105.65
1570	J-778	974.01	Lakes	0.20	1218.23	105.66
1605	J-800	807.74	Forest	0.68	1051.97	105.67
7606	J-4063	808.33	Forest	0.48	1052.58	105.68
5927	J-3172	812.87	Forest	0.28	1057.27	105.74
7948	J-4149	807.54	Forest	0.28	1051.96	105.75
6825	J-3701	810.38	Forest	0.08	1054.88	105.78
2200	J-1173	808.00	Forest	0.48	1052.54	105.80
5345	J-2840	808.00	Forest	0.48	1052.54	105.80
8479	J-4191	807.41	Forest	0.28	1051.96	105.80
4048	J-2185	807.91	Forest	0.88	1052.50	105.82
1767	J-904	815.38	Forest	0.48	1059.99	105.83
5025	J-2657	973.40	Lakes	0.63	1218.03	105.84
5024	J-2656	973.35	Lakes	0.29	1218.03	105.86
3168	J-1715	812.44	Forest	0.48	1057.13	105.87
783	J-446	807.25	Forest	0.08	1051.95	105.87
6476	J-3495	807.77	Forest	0.88	1052.54	105.90
2395	J-1286	820.17	Forest	0.08	1064.94	105.90

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2541	J-1364	807.69	Forest	2.49	1052.56	105.94
6477	J-3496	807.65	Forest	0.48	1052.54	105.95
3117	J-1685	812.38	Forest	1.08	1057.27	105.95
3769	J-2054	811.88	Forest	1.88	1056.79	105.96
6755	J-3660	812.03	Forest	0.88	1057.13	106.04
5920	J-3168	812.87	Forest	0.88	1057.97	106.04
6200	J-3332	806.72	Forest	0.88	1051.84	106.05
2782	J-1505	812.07	Forest	0.68	1057.27	106.09
1831	J-944	811.91	Forest	0.08	1057.13	106.09
7051	J-3832	806.80	Forest	2.29	1052.02	106.10
7831	J-4129	806.79	Forest	0.68	1052.02	106.10
6826	J-3702	809.65	Forest	0.08	1054.88	106.10
1989	J-1047	819.68	Forest	0.08	1064.93	106.11
2783	J-1506	812.00	Forest	1.08	1057.27	106.12
4124	J-2217	807.44	Forest	1.88	1052.72	106.12
2397	J-1287	819.45	Forest	0.08	1064.94	106.21
6093	J-3269	972.46	Lakes	0.37	1218.03	106.25
5274	J-2798	807.34	Forest	0.28	1052.99	106.28
1377	J-692	807.33	Forest	0.28	1052.99	106.29
5502	J-2929	807.30	Forest	0.28	1052.99	106.30
6796	J-3685	806.27	Forest	0.08	1051.97	106.31
223	J-105	1077.20	Stewartsville	0.11	1322.91	106.31
222	J-104	1077.17	Stewartsville	0.11	1322.91	106.32
2400	J-1289	819.08	Forest	0.08	1064.94	106.37
6696	J-3626	806.55	Forest	1.88	1052.50	106.41
2644	J-1423	807.25	Forest	0.88	1053.22	106.42
792	J-451	805.97	Forest	0.28	1051.96	106.43
6762	J-3664	812.00	Forest	1.08	1058.01	106.43
2078	J-1098	972.01	Lakes	0.20	1218.03	106.44
1512	J-754	812.37	Forest	0.48	1058.43	106.46
6695	J-3625	806.40	Forest	0.08	1052.50	106.48
1188	J-622	806.83	Forest	0.88	1052.99	106.50
7169	J-3896	818.39	Forest	0.28	1064.94	106.67
5919	J-3167	811.41	Forest	1.08	1057.97	106.67
6312	J-3399	805.35	Forest	0.08	1051.92	106.68
6171	J-3315	811.85	Forest	0.08	1058.43	106.68
3150	J-1705	818.33	Forest	0.08	1064.94	106.70
1761	J-900	813.24	Forest	0.08	1059.99	106.76
2540	J-1363	805.78	Forest	0.28	1052.56	106.77
282	J-144	805.67	Forest	0.28	1052.56	106.82
5514	J-2936	804.86	Forest	0.28	1051.84	106.86
1966	J-1032	817.82	Forest	0.88	1064.94	106.92
4042	J-2181	804.80	Forest	1.48	1051.92	106.92
5619	J-2996	805.38	Forest	0.08	1052.56	106.94
1194	J-625	971.03	Lakes	0.29	1218.42	107.03
6733	J-3647	971.01	Lakes	0.20	1218.42	107.04
5513	J-2935	804.40	Forest	0.88	1051.84	107.05
281	J-143	805.12	Forest	0.28	1052.56	107.05
3770	J-2055	809.32	Forest	1.68	1056.79	107.07
5199	J-2754	817.35	Forest	0.08	1064.94	107.12
180	J-88	810.37	Forest	0.08	1058.01	107.14
1277	J-663	817.18	Forest	0.28	1064.94	107.19
3915	J-2125	809.46	Forest	1.68	1057.27	107.22
1173	J-616	811.84	Forest	0.08	1059.78	107.27
426	J-236	811.83	Forest	0.08	1059.79	107.28
4902	J-2585	811.79	Forest	0.48	1059.79	107.30
4850	J-2555	804.53	Forest	0.28	1052.56	107.31
5014	J-2650	808.71	Forest	2.29	1056.79	107.33
375	J-203	804.46	Forest	0.08	1052.56	107.34
7052	J-3833	803.81	Forest	0.68	1052.02	107.39
8538	J-4219	816.62	Forest	0.48	1064.94	107.44
4964	J-2621	804.19	Forest	0.28	1052.54	107.45
7452	J-4010	803.46	Forest	0.08	1051.84	107.46
427	J-237	811.37	Forest	0.48	1059.79	107.48
1774	J-908	811.29	Forest	0.28	1059.75	107.50
5067	J-2682	812.28	Forest	0.08	1061.12	107.66
2906	J-1574	803.02	Forest	1.08	1051.95	107.70
1759	J-899	807.82	Forest	0.68	1056.78	107.71
1775	J-909	810.71	Forest	0.88	1059.75	107.75
1013	J-553	812.08	Forest	0.28	1061.12	107.75
6347	J-3420	807.50	Forest	0.68	1056.79	107.85
4326	J-2288	802.40	Forest	1.48	1051.84	107.92
4965	J-2622	803.08	Forest	0.48	1052.54	107.93
6991	J-3798	810.29	Forest	1.68	1059.78	107.94
4078	J-2198	811.81	Forest	0.28	1061.38	107.98
582	J-333	810.14	Forest	0.48	1059.79	108.01
7064	J-3839	811.48	Forest	0.08	1061.13	108.01
3988	J-2157	802.79	Forest	0.88	1052.54	108.05
6972	J-3787	802.20	Forest	0.28	1051.95	108.05
7227	J-3924	804.81	Forest	0.28	1054.66	108.10
5813	J-3109	811.41	Forest	0.48	1061.38	108.15
7018	J-3814	814.95	Forest	0.08	1064.93	108.15
2779	J-1503	801.72	Forest	1.28	1051.92	108.25
1758	J-898	806.54	Forest	1.28	1056.79	108.27
650	J-374	810.87	Forest	0.08	1061.13	108.27
6620	J-3580	804.26	Forest	0.08	1054.66	108.33
6765	J-3666	807.05	Forest	0.48	1057.53	108.37
823	J-466	801.30	Forest	0.08	1051.95	108.44
624	J-358	1072.06	Stewartsville	0.11	1322.92	108.53
5947	J-3184	966.36	Lakes	0.29	1217.30	108.57
8036	J-4160	813.94	Forest	0.08	1064.93	108.59
1626	J-814	800.83	Forest	0.68	1051.95	108.65
2881	J-1561	813.79	Forest	0.08	1064.93	108.66
7732	J-4102	800.65	Forest	0.28	1051.83	108.67
1625	J-813	800.72	Forest	0.08	1051.95	108.70
6621	J-3581	803.31	Forest	0.08	1054.66	108.75
2706	J-1460	809.75	Forest	0.28	1061.13	108.76
1132	J-600	965.89	Lakes	2.24	1217.30	108.77
7688	J-4087	806.05	Forest	1.08	1057.53	108.80

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
623	J-357	1071.40	Stewartsville	0.26	1322.92	108.82
6764	J-3665	806.01	Forest	0.88	1057.53	108.82
2199	J-1172	800.67	Forest	0.68	1052.54	108.97
7795	J-4119	812.95	Forest	1.28	1064.82	108.97
5799	J-3101	804.94	Forest	0.08	1056.91	109.02
1793	J-920	807.65	Forest	0.48	1059.74	109.07
987	J-541	800.00	Forest	0.08	1052.13	109.09
5058	J-2677	800.00	Forest	0.08	1052.13	109.09
5800	J-3102	804.62	Forest	0.68	1056.91	109.15
7019	J-3815	812.32	Forest	0.48	1064.93	109.30
5561	J-2963	812.22	Forest	0.48	1064.93	109.34
6509	J-3514	1070.25	Stewartsville	0.11	1322.97	109.34
7402	J-3994	801.93	Forest	0.28	1054.66	109.34
4335	J-2291	799.24	Forest	1.48	1052.03	109.37
983	J-539	800.01	Forest	0.48	1053.00	109.46
4077	J-2197	808.18	Forest	0.28	1061.38	109.55
6624	J-3583	804.23	Forest	0.48	1057.53	109.59
7146	J-3885	799.58	Forest	1.08	1053.00	109.64
6405	J-3454	806.43	Forest	0.28	1059.99	109.70
8509	J-4207	804.19	Forest	0.68	1057.76	109.71
4911	J-2590	1069.28	Stewartsville	0.11	1322.91	109.74
6629	J-3586	802.14	Forest	0.48	1055.79	109.74
4549	J-2386	799.30	Forest	0.48	1053.00	109.76
6630	J-3587	801.98	Forest	0.68	1055.79	109.81
1098	J-589	1068.97	Stewartsville	0.26	1322.91	109.87
5560	J-2962	810.98	Forest	0.08	1064.93	109.87
6557	J-3543	799.43	Forest	0.48	1053.42	109.89
6325	J-3407	798.75	Forest	1.48	1052.86	109.94
4548	J-2385	798.86	Forest	0.28	1053.00	109.95
2687	J-1448	798.42	Forest	1.08	1052.56	109.96
6623	J-3582	803.22	Forest	0.88	1057.53	110.03
7821	J-4126	798.66	Forest	0.48	1053.00	110.04
993	J-544	1068.63	Stewartsville	0.11	1322.97	110.04
6678	J-3615	810.46	Forest	0.68	1064.91	110.09
6677	J-3614	810.22	Forest	0.88	1064.91	110.19
1755	J-896	798.20	Forest	0.88	1052.99	110.23
6324	J-3406	798.04	Forest	0.48	1052.86	110.25
6556	J-3542	798.57	Forest	0.68	1053.42	110.26
2487	J-1334	797.65	Forest	0.08	1052.56	110.29
7000	J-3804	809.88	Forest	0.08	1064.82	110.30
1707	J-865	797.01	Forest	1.28	1051.95	110.30
2697	J-1454	796.88	Forest	0.88	1051.83	110.31
1762	J-901	805.03	Forest	0.88	1059.99	110.31
6406	J-3455	805.03	Forest	0.48	1059.99	110.31
3099	J-1673	804.00	Forest	0.48	1059.01	110.33
3100	J-1674	804.00	Forest	0.48	1059.01	110.33
6410	J-3457	804.00	Forest	0.48	1059.01	110.33
1784	J-914	802.40	Forest	0.48	1057.53	110.38
6319	J-3403	797.33	Forest	0.28	1052.56	110.43
2840	J-1539	796.90	Forest	0.88	1052.49	110.58
7071	J-3843	796.76	Forest	0.68	1052.42	110.61
6039	J-3235	801.77	Forest	0.68	1057.67	110.72
6999	J-3803	808.91	Forest	0.68	1064.82	110.72
7983	J-4155	796.49	Forest	1.28	1052.49	110.76
7827	J-4127	808.72	Forest	0.68	1064.93	110.85
7072	J-3844	796.12	Forest	1.08	1052.42	110.89
6836	J-3708	796.19	Forest	1.48	1052.50	110.90
6038	J-3234	801.35	Forest	0.48	1057.67	110.90
6744	J-3653	796.00	Forest	1.08	1052.54	110.99
6745	J-3654	796.00	Forest	0.28	1052.54	110.99
7514	J-4033	796.00	Forest	0.48	1052.54	110.99
4163	J-2235	795.18	Forest	0.48	1051.86	111.05
2391	J-1284	808.00	Forest	0.08	1064.94	111.17
2774	J-1500	808.00	Forest	0.28	1064.94	111.17
5134	J-2718	804.06	Forest	0.28	1061.13	111.22
4522	J-2370	807.78	Forest	0.08	1064.94	111.26
2488	J-1335	795.39	Forest	0.68	1052.56	111.27
836	J-472	794.62	Forest	0.28	1051.96	111.34
7595	J-4059	800.33	Forest	0.88	1057.68	111.34
651	J-375	803.72	Forest	0.28	1061.13	111.37
2379	J-1277	807.45	Forest	0.48	1064.94	111.40
4889	J-2578	799.67	Forest	0.28	1057.29	111.46
7690	J-4088	794.82	Forest	1.88	1052.50	111.49
2985	J-1609	943.54	Fox_Run	1.28	1201.27	111.51
4471	J-2341	794.07	Forest	1.28	1051.83	111.52
4888	J-2577	799.47	Forest	0.08	1057.29	111.55
4766	J-2508	794.01	Forest	0.88	1051.85	111.56
4470	J-2340	793.89	Forest	0.48	1051.83	111.60
4672	J-2456	793.88	Forest	1.68	1051.86	111.62
3262	J-1773	793.88	Forest	0.08	1051.86	111.62
5281	J-2802	960.00	Lakes	1.41	1218.03	111.64
5282	J-2803	960.00	Lakes	0.81	1218.03	111.64
4765	J-2507	793.80	Forest	0.48	1051.85	111.65
6785	J-3678	794.43	Forest	0.28	1052.50	111.65
7084	J-3851	958.94	Lakes	0.20	1217.08	111.68
7837	J-4130	793.58	Forest	1.48	1051.85	111.74
7493	J-4026	793.50	Forest	0.48	1051.83	111.76
2698	J-1455	793.49	Forest	0.48	1051.83	111.77
1904	J-992	798.40	Forest	0.48	1056.91	111.85
1832	J-945	798.54	Forest	0.48	1057.12	111.88
1610	J-803	806.33	Forest	1.08	1064.93	111.89
3026	J-1627	798.10	Forest	1.48	1057.23	112.11
3831	J-2084	798.07	Forest	0.88	1057.27	112.15
1611	J-804	805.70	Forest	0.08	1064.93	112.16
4735	J-2491	792.50	Forest	0.08	1051.82	112.20
5707	J-3048	805.52	Forest	0.48	1064.93	112.23
6784	J-3677	793.07	Forest	0.68	1052.50	112.24
7193	J-3906	958.74	Lakes	0.20	1218.20	112.26
7194	J-3907	958.73	Lakes	0.20	1218.20	112.26

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2876	J-1558	792.37	Forest	0.48	1051.86	112.27
1307	J-677	959.08	Lakes	0.20	1218.61	112.29
4736	J-2492	792.16	Forest	0.88	1051.82	112.35
5995	J-3210	958.93	Lakes	0.20	1218.61	112.35
6394	J-3448	799.99	Forest	0.08	1059.76	112.39
881	J-495	1063.14	Stewartsville	0.11	1322.93	112.40
3213	J-1742	958.34	Lakes	0.20	1218.15	112.41
1794	J-921	799.81	Forest	0.88	1059.74	112.46
2010	J-1061	799.72	Forest	1.28	1059.72	112.49
6444	J-3477	958.05	Lakes	0.20	1218.15	112.53
6837	J-3709	792.41	Forest	1.28	1052.50	112.53
3214	J-1743	957.99	Lakes	0.20	1218.15	112.56
4779	J-2515	797.25	Forest	1.08	1057.53	112.61
2285	J-1223	799.53	Forest	1.88	1059.99	112.69
2773	J-1499	804.40	Forest	0.88	1064.94	112.72
8415	J-4177	796.70	Forest	0.68	1057.29	112.74
4780	J-2516	796.94	Forest	0.48	1057.53	112.74
4208	J-2251	796.94	Forest	0.88	1057.53	112.74
3307	J-1799	957.55	Lakes	0.20	1218.15	112.75
61	J-22	797.10	Forest	0.08	1057.75	112.77
3793	J-2066	799.03	Forest	0.88	1059.76	112.81
6226	J-3348	957.47	Lakes	0.20	1218.21	112.81
6053	J-3244	796.72	Forest	1.88	1057.63	112.88
6403	J-3453	957.54	Lakes	0.20	1218.47	112.89
62	J-23	796.75	Forest	0.08	1057.76	112.93
1756	J-897	791.89	Forest	0.48	1052.99	112.96
5646	J-3012	795.79	Forest	0.48	1056.91	112.98
8060	J-4162	956.87	Lakes	0.20	1218.02	112.99
5647	J-3013	795.66	Forest	0.08	1056.91	113.03
2252	J-1203	790.49	Forest	0.68	1051.85	113.08
6714	J-3636	795.91	Forest	0.48	1057.29	113.09
1785	J-915	796.13	Forest	0.88	1057.52	113.09
3913	J-2124	956.75	Lakes	0.72	1218.15	113.09
6713	J-3635	795.88	Forest	0.88	1057.29	113.10
1131	J-599	956.00	Lakes	0.20	1217.47	113.13
6052	J-3243	796.13	Forest	0.48	1057.63	113.14
6225	J-3347	956.68	Lakes	0.20	1218.21	113.15
2599	J-1397	1061.38	Stewartsville	2.34	1322.92	113.16
7713	J-4096	796.33	Forest	0.08	1057.97	113.20
6090	J-3267	956.57	Lakes	0.20	1218.29	113.23
4146	J-2227	803.01	Forest	0.48	1064.82	113.27
5520	J-2939	789.97	Forest	0.68	1051.80	113.28
4212	J-2253	789.90	Forest	1.68	1051.80	113.31
1108	J-593	1061.04	Stewartsville	0.11	1322.94	113.31
1685	J-850	799.15	Forest	1.28	1061.10	113.33
4988	J-2635	802.84	Forest	0.88	1064.82	113.35
4987	J-2634	802.82	Forest	0.48	1064.82	113.35
1240	J-648	956.44	Lakes	0.20	1218.47	113.37
5521	J-2940	789.73	Forest	0.28	1051.80	113.39
6880	J-3734	1060.67	Stewartsville	1.99	1322.92	113.46
5245	J-2782	955.18	Lakes	0.20	1217.47	113.48
6091	J-3268	955.96	Lakes	0.20	1218.29	113.50
512	J-289	955.64	Lakes	0.20	1218.03	113.52
4898	J-2583	1060.52	Stewartsville	0.11	1322.94	113.54
2788	J-1509	790.12	Forest	1.28	1052.55	113.55
1201	J-629	955.27	Lakes	0.20	1217.87	113.61
2265	J-1211	789.90	Forest	0.08	1052.53	113.63
5458	J-2905	789.09	Forest	0.48	1051.84	113.68
5726	J-3059	802.05	Forest	0.08	1064.82	113.69
7320	J-3962	789.94	Forest	0.08	1052.86	113.75
6519	J-3520	789.92	Forest	0.68	1052.86	113.76
4082	J-2200	788.98	Forest	0.88	1051.92	113.76
7658	J-4080	801.76	Forest	0.08	1064.82	113.82
6810	J-3693	789.32	Forest	0.68	1052.50	113.87
7277	J-3946	795.75	Forest	1.68	1059.01	113.90
6520	J-3521	789.60	Forest	0.68	1052.86	113.90
5457	J-2904	788.47	Forest	0.08	1051.84	113.95
3871	J-2103	796.37	Forest	0.48	1059.76	113.96
6251	J-3364	954.46	Lakes	0.20	1217.87	113.96
2554	J-1372	796.39	Forest	0.48	1060.08	114.09
3543	J-1931	795.11	Forest	0.48	1059.01	114.17
5511	J-2934	793.73	Forest	0.08	1057.63	114.18
3480	J-1896	954.08	Lakes	1.32	1218.03	114.20
6717	J-3638	796.08	Forest	0.48	1060.09	114.23
2553	J-1371	796.02	Forest	0.48	1060.08	114.24
5084	J-2691	800.86	Forest	0.08	1064.92	114.25
7770	J-4112	787.74	Forest	0.88	1051.80	114.25
6809	J-3692	788.31	Forest	0.68	1052.50	114.30
1706	J-864	787.71	Forest	0.88	1051.95	114.32
7600	J-4061	794.70	Forest	0.08	1059.01	114.35
1280	J-664	793.28	Forest	0.48	1057.63	114.37
3051	J-1643	953.49	Lakes	0.89	1218.03	114.45
6716	J-3637	795.49	Forest	0.68	1060.09	114.48
749	J-429	953.72	Lakes	0.20	1218.35	114.49
3050	J-1642	953.37	Lakes	0.20	1218.03	114.50
5424	J-2886	787.73	Forest	0.08	1052.56	114.58
5406	J-2876	953.14	Lakes	0.20	1218.03	114.60
1449	J-726	792.98	Forest	0.28	1057.88	114.61
8679	J-4225	800.00	Forest	0.00	1064.96	114.63
5727	J-3060	799.86	Forest	0.48	1064.82	114.64
3905	J-2120	799.84	Forest	0.48	1064.82	114.65
4180	J-2241	788.00	Forest	1.48	1053.00	114.65
6279	J-3380	788.00	Forest	0.48	1053.00	114.65
6233	J-3352	953.16	Lakes	0.20	1218.23	114.68
925	J-512	952.00	Lakes	0.20	1217.08	114.69
1037	J-563	799.84	Forest	0.48	1064.92	114.69
32	J-3	799.82	Forest	0.28	1064.92	114.70
5423	J-2885	787.43	Forest	0.68	1052.56	114.71
7716	J-4097	792.14	Forest	0.68	1057.29	114.71

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
2686	J-1447	787.35	Forest	0.28	1052.56	114.75
4386	J-2309	791.58	Forest	0.08	1056.91	114.80
2378	J-1276	799.55	Forest	0.08	1064.94	114.82
1686	J-851	795.68	Forest	0.48	1061.13	114.85
6234	J-3353	952.73	Lakes	0.20	1218.23	114.87
4972	J-2626	791.41	Forest	0.28	1056.91	114.87
6389	J-3445	952.58	Lakes	0.20	1218.15	114.90
3363	J-1831	952.46	Lakes	1.15	1218.03	114.90
7476	J-4020	1057.15	Stewartsville	3.28	1322.91	114.98
5018	J-2652	794.04	Forest	0.08	1059.82	114.99
4664	J-2451	952.24	Lakes	0.20	1218.03	115.00
7299	J-3955	786.73	Forest	0.68	1052.56	115.01
1837	J-948	799.07	Forest	0.28	1064.91	115.02
1450	J-727	792.00	Forest	0.08	1057.87	115.03
6173	J-3316	792.00	Forest	0.28	1057.87	115.03
3362	J-1830	952.09	Lakes	0.29	1218.03	115.06
4665	J-2452	952.00	Lakes	0.20	1218.03	115.10
6223	J-3346	952.19	Lakes	0.20	1218.35	115.15
1967	J-1033	798.72	Forest	1.08	1064.92	115.17
5019	J-2653	793.54	Forest	1.08	1059.82	115.21
1182	J-619	952.32	Lakes	0.20	1218.60	115.21
3579	J-1952	786.11	Forest	0.08	1052.53	115.27
6222	J-3345	951.71	Lakes	0.20	1218.35	115.36
6388	J-3444	951.48	Lakes	0.20	1218.15	115.38
6308	J-3397	951.34	Lakes	0.20	1218.03	115.39
296	J-152	951.55	Lakes	0.20	1218.35	115.43
297	J-153	951.51	Lakes	0.29	1218.35	115.45
2068	J-1094	951.04	Lakes	0.20	1218.03	115.51
6807	J-3691	791.96	Forest	0.88	1059.01	115.54
4529	J-2374	1055.80	Stewartsville	0.11	1322.91	115.57
4243	J-2261	784.71	Forest	1.28	1051.84	115.57
4530	J-2375	1055.73	Stewartsville	0.11	1322.91	115.60
5695	J-3041	785.35	Forest	0.08	1052.53	115.60
2780	J-1504	784.72	Forest	0.68	1051.92	115.61
2719	J-1467	784.62	Forest	1.48	1051.83	115.61
511	J-288	950.72	Lakes	0.20	1218.03	115.65
5247	J-2783	784.27	Forest	1.48	1051.86	115.77
5957	J-3189	950.97	Lakes	0.20	1218.60	115.79
5669	J-3026	950.38	Lakes	0.29	1218.03	115.80
4848	J-2554	789.23	Forest	0.08	1056.91	115.81
7644	J-4077	784.00	Forest	0.28	1051.83	115.88
6488	J-3502	950.46	Lakes	0.20	1218.37	115.91
982	J-538	785.06	Forest	0.08	1053.01	115.93
3492	J-1903	950.03	Lakes	1.41	1218.03	115.95
731	J-420	950.37	Lakes	0.20	1218.37	115.95
3544	J-1932	791.01	Forest	0.88	1059.01	115.95
5692	J-3039	783.76	Forest	0.68	1051.81	115.97
4415	J-2318	788.80	Forest	0.08	1056.91	116.00
3124	J-1689	788.74	Forest	0.08	1056.91	116.02
5063	J-2680	949.67	Lakes	0.37	1218.03	116.11
5062	J-2679	949.65	Lakes	0.89	1218.03	116.11
846	J-477	1054.52	Stewartsville	0.40	1322.92	116.12
4488	J-2351	1054.49	Stewartsville	0.11	1322.92	116.13
1903	J-991	788.42	Forest	0.08	1056.91	116.16
2479	J-1330	788.35	Forest	0.08	1056.91	116.19
5248	J-2784	783.27	Forest	0.48	1051.86	116.21
7042	J-3827	796.33	Forest	0.08	1064.94	116.21
7863	J-4134	784.38	Forest	0.68	1053.00	116.22
7162	J-3894	949.35	Lakes	1.67	1218.03	116.24
5095	J-2697	789.13	Forest	0.08	1057.84	116.26
2478	J-1329	788.12	Forest	0.08	1056.91	116.29
5783	J-3092	784.20	Forest	0.68	1053.01	116.30
5693	J-3040	782.91	Forest	0.28	1051.81	116.34
4033	J-2177	782.87	Forest	0.88	1051.81	116.36
7559	J-4050	782.74	Forest	0.88	1051.93	116.47
7733	J-4103	782.62	Forest	0.08	1051.83	116.47
4627	J-2431	787.50	Forest	0.48	1056.91	116.56
4236	J-2260	795.45	Forest	1.28	1064.86	116.56
5094	J-2696	788.35	Forest	0.08	1057.84	116.60
4628	J-2432	787.35	Forest	0.08	1056.91	116.63
8463	J-4183	948.75	Lakes	0.20	1218.35	116.64
1293	J-672	783.42	Forest	0.08	1053.02	116.65
2754	J-1489	795.14	Forest	1.48	1064.93	116.73
6565	J-3548	783.01	Forest	0.08	1053.02	116.82
6437	J-3473	947.81	Lakes	0.37	1218.15	116.96
6866	J-3725	781.59	Forest	0.48	1051.93	116.96
3609	J-1968	947.76	Lakes	0.20	1218.15	116.98
1861	J-964	794.40	Forest	0.48	1064.82	117.00
3028	J-1628	947.72	Lakes	0.20	1218.15	117.00
3029	J-1629	947.72	Lakes	0.20	1218.15	117.00
6013	J-3220	947.56	Lakes	0.37	1218.03	117.02
3607	J-1967	794.28	Forest	0.08	1064.82	117.05
6436	J-3472	947.60	Lakes	0.37	1218.15	117.05
370	J-200	781.38	Forest	0.08	1051.93	117.05
369	J-199	781.34	Forest	0.68	1051.93	117.07
3281	J-1785	947.42	Lakes	0.63	1218.15	117.13
2844	J-1541	1052.00	Stewartsville	3.44	1322.86	117.19
4728	J-2487	1052.00	Stewartsville	0.11	1322.91	117.21
4729	J-2488	1052.00	Stewartsville	0.40	1322.91	117.21
6867	J-3726	780.96	Forest	0.48	1051.93	117.24
5187	J-2748	1051.94	Stewartsville	0.26	1322.93	117.24
700	J-403	1051.97	Stewartsville	0.11	1322.97	117.25
5683	J-3034	780.92	Forest	0.28	1051.93	117.25
4043	J-2182	780.88	Forest	1.68	1051.92	117.27
33	J-4	793.71	Forest	0.68	1064.80	117.29
882	J-496	1051.52	Stewartsville	0.11	1322.93	117.42
7378	J-3984	793.28	Forest	0.08	1064.82	117.48
6365	J-3431	793.28	Forest	1.28	1064.82	117.48
1838	J-949	793.34	Forest	0.48	1064.91	117.50

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
6875	J-3731	946.82	Lakes	0.37	1218.52	117.55
2069	J-1095	946.25	Lakes	0.20	1218.03	117.59
7828	J-4128	792.94	Forest	0.28	1064.93	117.68
4877	J-2570	779.74	Forest	0.08	1051.83	117.72
1239	J-647	946.39	Lakes	0.20	1218.52	117.74
6364	J-3430	792.67	Forest	0.08	1064.82	117.75
2398	J-1288	792.65	Forest	0.68	1064.94	117.81
4209	J-2252	785.21	Forest	1.28	1057.57	117.83
54	J-18	784.94	Forest	0.08	1057.65	117.99
1513	J-755	785.54	Forest	0.08	1058.31	118.01
6142	J-3298	785.49	Forest	0.28	1058.31	118.04
2880	J-1560	792.00	Forest	1.48	1064.93	118.09
1981	J-1042	791.97	Forest	0.08	1064.93	118.10
53	J-17	784.65	Forest	1.08	1057.64	118.11
5320	J-2825	791.78	Forest	0.48	1064.82	118.13
328	J-173	945.22	Lakes	0.29	1218.38	118.18
5276	J-2799	784.38	Forest	1.08	1057.57	118.20
5277	J-2800	784.28	Forest	0.68	1057.57	118.24
6641	J-3593	780.21	Forest	1.48	1053.73	118.34
5319	J-2824	791.23	Forest	0.68	1064.82	118.37
6543	J-3534	783.98	Forest	0.68	1057.65	118.40
4749	J-2499	791.26	Forest	0.08	1064.93	118.41
4876	J-2569	778.13	Forest	0.08	1051.83	118.41
7199	J-3910	791.18	Forest	0.08	1064.94	118.44
5760	J-3079	778.78	Forest	0.88	1052.56	118.45
6452	J-3481	944.36	Lakes	0.20	1218.15	118.45
6088	J-3266	944.43	Lakes	0.20	1218.24	118.46
4083	J-2201	778.08	Forest	0.68	1051.92	118.48
6087	J-3265	944.12	Lakes	0.20	1218.24	118.60
5761	J-3080	778.39	Forest	0.48	1052.56	118.62
3327	J-1810	790.70	Forest	0.08	1064.93	118.65
6453	J-3482	943.85	Lakes	0.37	1218.15	118.68
7327	J-3965	943.82	Lakes	0.20	1218.15	118.69
327	J-172	944.01	Lakes	0.20	1218.38	118.71
5685	J-3035	777.39	Forest	1.08	1051.92	118.78
7316	J-3961	943.51	Lakes	0.20	1218.15	118.82
5911	J-3163	941.90	Lakes	0.20	1216.70	118.90
2428	J-1301	943.74	Lakes	0.20	1218.60	118.92
6384	J-3442	943.23	Lakes	0.29	1218.15	118.94
5305	J-2816	783.40	Forest	1.28	1058.34	118.96
1862	J-965	789.83	Forest	1.28	1064.79	118.96
3340	J-1817	943.09	Lakes	0.37	1218.15	119.00
1827	J-942	789.63	Forest	0.88	1064.93	119.11
5259	J-2790	942.66	Lakes	0.63	1218.03	119.14
964	J-530	941.46	Lakes	0.37	1216.88	119.16
2720	J-1468	776.33	Forest	0.08	1051.83	119.20
5981	J-3202	943.08	Lakes	0.20	1218.61	119.21
3621	J-1974	942.27	Lakes	0.20	1218.03	119.31
6343	J-3418	941.09	Lakes	0.20	1216.88	119.32
943	J-520	942.52	Lakes	0.20	1218.61	119.45
3341	J-1818	942.00	Lakes	0.46	1218.15	119.47
6642	J-3594	777.41	Forest	1.48	1053.73	119.55
1216	J-637	940.28	Lakes	0.29	1216.70	119.59
7758	J-4107	788.36	Forest	0.68	1064.82	119.61
4565	J-2395	775.34	Forest	0.08	1051.83	119.62
5304	J-2815	781.81	Forest	0.88	1058.34	119.64
7079	J-3848	940.43	Lakes	0.29	1216.98	119.65
4566	J-2396	775.15	Forest	0.48	1051.83	119.71
573	J-328	941.24	Lakes	0.55	1218.03	119.75
1788	J-917	780.10	Forest	0.88	1057.58	120.05
2453	J-1315	787.45	Forest	0.28	1064.96	120.06
1856	J-961	782.45	Forest	0.88	1059.99	120.08
5860	J-3135	940.19	Lakes	0.20	1218.13	120.25
5925	J-3171	773.82	Forest	0.88	1051.82	120.28
4244	J-2262	773.82	Forest	2.49	1051.84	120.29
2062	J-1091	786.84	Forest	0.08	1064.96	120.33
2061	J-1090	786.78	Forest	0.08	1064.96	120.35
5924	J-3170	773.64	Forest	0.68	1051.82	120.36
6821	J-3699	786.51	Forest	0.68	1064.82	120.41
3654	J-1993	786.46	Forest	0.68	1064.82	120.43
701	J-404	1044.58	Stewartsville	0.11	1322.97	120.45
4923	J-2597	773.37	Forest	0.08	1051.84	120.48
1550	J-770	939.60	Lakes	0.20	1218.13	120.50
1816	J-935	774.43	Forest	0.68	1052.98	120.52
2875	J-1557	773.27	Forest	2.29	1051.86	120.53
690	J-397	939.92	Lakes	0.20	1218.60	120.57
2532	J-1359	939.89	Lakes	0.20	1218.60	120.58
5577	J-2972	773.12	Forest	0.48	1051.87	120.60
7080	J-3849	938.22	Lakes	0.20	1216.98	120.61
2074	J-1097	786.18	Forest	0.08	1064.96	120.61
2483	J-1332	939.81	Lakes	0.20	1218.60	120.62
3036	J-1633	939.75	Lakes	0.20	1218.60	120.65
1317	J-680	778.46	Forest	0.08	1057.32	120.65
293	J-150	938.96	Lakes	0.20	1217.88	120.67
5765	J-3082	778.91	Forest	0.08	1058.06	120.77
294	J-151	938.60	Lakes	0.20	1217.88	120.83
5526	J-2943	772.50	Forest	1.48	1051.80	120.84
158	J-77	937.62	Lakes	0.20	1216.98	120.87
7711	J-4095	937.59	Lakes	0.20	1216.98	120.88
5399	J-2872	777.88	Forest	0.08	1057.32	120.90
147	J-72	776.00	Forest	0.48	1055.46	120.91
5481	J-2918	776.00	Forest	1.28	1055.46	120.91
3472	J-1891	772.39	Forest	0.28	1051.87	120.92
3191	J-1729	939.10	Lakes	0.20	1218.60	120.93
7636	J-4074	938.53	Lakes	0.20	1218.15	120.98
5527	J-2944	772.08	Forest	0.48	1051.80	121.02
1815	J-934	773.19	Forest	1.08	1052.99	121.05
3160	J-1711	938.34	Lakes	0.37	1218.15	121.06
1292	J-671	773.20	Forest	0.08	1053.03	121.07

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
418	J-231	937.07	Lakes	0.20	1216.98	121.10
7996	J-4157	772.51	Forest	0.48	1052.49	121.13
3172	J-1717	771.75	Forest	0.08	1051.81	121.17
1738	J-885	779.61	Forest	0.68	1059.74	121.20
1388	J-693	772.78	Forest	0.28	1053.00	121.24
5394	J-2869	772.75	Forest	1.28	1052.99	121.25
6242	J-3358	784.69	Forest	0.28	1064.93	121.25
6591	J-3563	772.72	Forest	0.08	1053.03	121.28
6456	J-3484	777.43	Forest	0.08	1057.75	121.29
1787	J-916	777.17	Forest	0.08	1057.59	121.33
7667	J-4083	779.33	Forest	0.68	1059.84	121.36
6271	J-3375	937.35	Lakes	0.20	1217.92	121.39
3159	J-1710	937.48	Lakes	0.20	1218.15	121.43
2863	J-1552	771.12	Forest	0.88	1051.81	121.44
5606	J-2989	937.14	Lakes	4.42	1217.88	121.46
5261	J-2791	771.05	Forest	0.68	1051.81	121.47
3078	J-1660	772.20	Forest	0.28	1053.00	121.49
605	J-346	937.08	Lakes	0.20	1217.88	121.49
3079	J-1661	772.19	Forest	0.08	1053.00	121.50
3240	J-1759	776.60	Forest	0.48	1057.59	121.57
6455	J-3483	776.75	Forest	0.48	1057.75	121.58
4816	J-2535	776.52	Forest	0.68	1057.59	121.61
6243	J-3359	783.85	Forest	0.08	1064.93	121.61
6419	J-3462	783.44	Forest	0.28	1064.83	121.75
4441	J-2325	776.91	Forest	2.29	1058.30	121.75
7157	J-3891	770.39	Forest	0.28	1051.91	121.80
6231	J-3351	771.47	Forest	1.28	1053.00	121.81
1257	J-653	936.34	Lakes	0.20	1217.92	121.82
7158	J-3892	770.32	Forest	0.48	1051.91	121.83
572	J-327	936.43	Lakes	0.20	1218.03	121.84
2841	J-1540	770.88	Forest	0.88	1052.49	121.84
2111	J-1116	776.09	Forest	1.08	1057.75	121.86
4500	J-2357	770.03	Forest	0.48	1051.91	121.96
4563	J-2394	777.82	Forest	0.88	1059.74	121.97
5986	J-3205	936.62	Lakes	0.20	1218.60	122.00
4501	J-2358	769.86	Forest	1.28	1051.91	122.03
6420	J-3463	782.74	Forest	0.28	1064.83	122.05
1289	J-669	935.75	Lakes	0.20	1217.91	122.07
8413	J-4176	775.00	Forest	0.08	1057.32	122.15
5915	J-3165	935.57	Lakes	0.20	1217.91	122.16
5729	J-3061	1040.62	Stewartsville	0.11	1322.96	122.16
1855	J-960	777.63	Forest	0.88	1059.98	122.16
3473	J-1892	769.32	Forest	0.68	1051.87	122.25
7365	J-3979	782.33	Forest	0.08	1064.93	122.27
5793	J-3097	769.72	Forest	0.08	1052.49	122.34
2672	J-1439	776.95	Forest	0.88	1059.74	122.35
7666	J-4082	776.96	Forest	0.48	1059.84	122.39
1520	J-757	774.96	Forest	0.08	1058.06	122.48
691	J-398	935.38	Lakes	0.29	1218.60	122.54
2253	J-1204	768.58	Forest	1.28	1051.85	122.56
1102	J-591	935.32	Lakes	0.20	1218.60	122.56
857	J-483	1039.33	Stewartsville	0.11	1322.96	122.71
5794	J-3098	768.74	Forest	0.28	1052.49	122.76
2115	J-1119	768.71	Forest	0.48	1052.53	122.80
889	J-499	768.00	Forest	0.88	1051.90	122.83
4796	J-2525	768.00	Forest	0.48	1051.90	122.83
7249	J-3935	773.16	Forest	0.08	1057.32	122.95
5972	J-3197	934.35	Lakes	0.20	1218.60	122.98
509	J-287	1038.54	Stewartsville	0.26	1322.91	123.03
1082	J-582	776.58	Forest	0.08	1061.13	123.11
7248	J-3934	772.76	Forest	0.08	1057.32	123.11
4343	J-2294	767.97	Forest	1.08	1052.54	123.12
3738	J-2040	767.22	Forest	0.68	1051.92	123.18
4292	J-2278	780.00	Forest	1.28	1064.81	123.23
5157	J-2731	780.00	Forest	0.08	1064.81	123.23
5158	J-2732	780.00	Forest	0.88	1064.81	123.23
7323	J-3963	780.00	Forest	0.48	1064.81	123.23
6690	J-3622	780.00	Forest	0.68	1064.82	123.23
6691	J-3623	780.00	Forest	0.48	1064.82	123.23
4621	J-2428	767.70	Forest	0.48	1052.54	123.24
3283	J-1786	779.92	Forest	0.48	1064.82	123.26
2497	J-1339	772.38	Forest	0.08	1057.32	123.28
3907	J-2121	766.93	Forest	1.28	1051.92	123.30
3751	J-2046	766.79	Forest	0.48	1051.92	123.36
4309	J-2284	1037.64	Stewartsville	1.12	1322.92	123.42
6804	J-3689	772.00	Forest	0.08	1057.32	123.45
6805	J-3690	772.00	Forest	0.08	1057.32	123.45
4978	J-2629	771.49	Forest	0.28	1056.91	123.49
4885	J-2575	772.14	Forest	2.89	1057.64	123.52
6673	J-3612	767.90	Forest	0.08	1053.42	123.53
5284	J-2804	775.54	Forest	0.48	1061.13	123.56
2112	J-1117	772.12	Forest	0.48	1057.75	123.58
3430	J-1867	772.00	Forest	0.28	1057.64	123.58
6693	J-3624	772.00	Forest	0.08	1057.64	123.58
3694	J-2015	932.49	Lakes	0.98	1218.15	123.59
2607	J-1402	767.72	Forest	0.88	1053.42	123.61
2114	J-1118	766.83	Forest	0.48	1052.53	123.61
4886	J-2576	771.92	Forest	0.88	1057.64	123.62
2735	J-1477	778.82	Forest	0.48	1064.82	123.74
5435	J-2892	778.71	Forest	0.68	1064.82	123.79
7763	J-4109	778.64	Forest	1.48	1064.94	123.87
508	J-286	1036.43	Stewartsville	0.26	1322.91	123.95
1737	J-884	773.25	Forest	0.28	1059.74	123.95
3175	J-1719	770.38	Forest	0.08	1056.91	123.97
2871	J-1556	778.34	Forest	1.28	1064.93	123.99
4543	J-2382	1036.23	Stewartsville	0.11	1322.91	124.04
4544	J-2383	1036.11	Stewartsville	0.11	1322.91	124.09
7541	J-4044	777.92	Forest	0.88	1064.83	124.13
6729	J-3645	777.87	Forest	0.88	1064.82	124.15

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
4558	J-2391	764.85	Forest	0.48	1051.92	124.20
7130	J-3876	764.70	Forest	1.28	1051.80	124.21
4503	J-2359	777.81	Forest	0.08	1064.93	124.22
7115	J-3868	777.58	Forest	0.08	1064.82	124.28
2837	J-1537	764.53	Forest	0.48	1051.80	124.29
2753	J-1488	777.66	Forest	0.28	1064.93	124.29
3742	J-2042	764.59	Forest	0.48	1051.92	124.32
4700	J-2471	764.53	Forest	0.68	1051.89	124.33
3174	J-1718	769.55	Forest	0.28	1056.91	124.33
4466	J-2338	764.38	Forest	0.48	1051.80	124.35
255	J-126	764.46	Forest	0.48	1051.89	124.36
5151	J-2727	777.37	Forest	0.48	1064.81	124.36
5152	J-2728	777.32	Forest	0.88	1064.81	124.39
6728	J-3644	777.28	Forest	0.28	1064.82	124.40
256	J-127	764.17	Forest	0.68	1051.89	124.48
4759	J-2504	1035.15	Stewartsville	0.11	1322.92	124.51
6205	J-3335	930.40	Lakes	0.20	1218.19	124.51
3737	J-2039	764.00	Forest	0.68	1051.92	124.57
4617	J-2426	764.00	Forest	0.88	1051.92	124.57
1549	J-769	930.19	Lakes	0.20	1218.15	124.59
5223	J-2768	769.57	Forest	1.08	1057.61	124.62
3429	J-1866	769.54	Forest	0.28	1057.64	124.65
5224	J-2769	769.43	Forest	1.48	1057.61	124.68
6206	J-3336	929.71	Lakes	0.20	1218.19	124.81
1000	J-547	1034.35	Stewartsville	0.58	1322.92	124.85
2043	J-1081	928.37	Lakes	0.29	1218.03	125.32
3655	J-1994	774.87	Forest	0.48	1064.82	125.45
2044	J-1082	928.06	Lakes	0.20	1218.03	125.46
712	J-409	927.84	Lakes	0.20	1217.85	125.47
6032	J-3231	774.63	Forest	2.09	1064.81	125.55
6178	J-3319	774.63	Forest	0.08	1064.93	125.60
2870	J-1555	774.63	Forest	0.08	1064.93	125.60
4100	J-2208	761.45	Forest	1.28	1051.80	125.62
3205	J-1738	774.22	Forest	0.08	1064.93	125.78
355	J-190	927.16	Lakes	0.20	1217.93	125.80
6031	J-3230	773.78	Forest	0.48	1064.81	125.92
356	J-191	926.88	Lakes	0.20	1217.93	125.93
3204	J-1737	773.62	Forest	0.48	1064.93	126.04
7060	J-3837	760.16	Forest	0.68	1051.80	126.18
5724	J-3058	925.99	Lakes	0.20	1218.03	126.35
5723	J-3057	925.90	Lakes	0.20	1218.03	126.39
1245	J-650	925.79	Lakes	0.20	1217.95	126.40
6265	J-3372	925.73	Lakes	0.20	1217.93	126.42
7593	J-4058	759.39	Forest	1.28	1051.80	126.51
5331	J-2832	925.40	Lakes	0.20	1217.95	126.57
3717	J-2028	758.60	Forest	0.48	1051.82	126.86
2498	J-1340	764.00	Forest	0.08	1057.32	126.91
4443	J-2326	1029.11	Stewartsville	0.69	1322.91	127.11
2578	J-1385	771.10	Forest	1.08	1064.93	127.13
6434	J-3471	924.10	Lakes	0.29	1218.03	127.17
3806	J-2072	757.81	Forest	1.08	1051.80	127.19
7569	J-4052	924.02	Lakes	0.37	1218.03	127.21
594	J-340	923.92	Lakes	0.20	1217.93	127.21
8513	J-4209	757.56	Forest	0.68	1051.82	127.31
5029	J-2659	758.26	Forest	0.88	1052.54	127.32
5030	J-2660	758.14	Forest	0.48	1052.54	127.37
6433	J-3470	923.61	Lakes	0.20	1218.03	127.38
2266	J-1212	757.97	Forest	0.88	1052.53	127.44
3680	J-2007	757.16	Forest	0.48	1051.80	127.48
737	J-422	757.05	Forest	1.28	1051.91	127.57
1870	J-970	769.84	Forest	1.08	1064.82	127.63
3695	J-2016	923.07	Lakes	0.37	1218.15	127.67
804	J-456	923.26	Lakes	0.20	1218.60	127.78
7536	J-4042	922.74	Lakes	0.20	1218.15	127.81
5595	J-2982	756.27	Forest	0.48	1051.93	127.92
8453	J-4179	578.08	Forest	0.68	873.78	127.94
3716	J-2027	756.05	Forest	0.88	1051.82	127.97
6314	J-3400	755.99	Forest	0.68	1051.80	127.98
310	J-161	922.15	Lakes	0.20	1218.03	128.01
3994	J-2160	761.56	Forest	1.48	1057.59	128.08
7348	J-3975	921.95	Lakes	0.20	1218.03	128.10
3679	J-2006	755.67	Forest	1.28	1051.80	128.12
5221	J-2767	921.59	Lakes	0.20	1218.03	128.26
309	J-160	921.49	Lakes	0.20	1218.03	128.30
6144	J-3299	921.35	Lakes	0.29	1218.03	128.36
70	J-28	758.95	Forest	0.08	1055.67	128.38
1750	J-893	756.39	Forest	0.48	1053.42	128.51
4696	J-2469	1025.90	Stewartsville	0.40	1322.95	128.52
2059	J-1089	920.96	Lakes	0.20	1218.03	128.53
680	J-392	1025.82	Stewartsville	0.11	1322.95	128.55
2366	J-1269	767.67	Forest	0.08	1064.94	128.61
2365	J-1268	767.67	Forest	0.08	1064.94	128.61
6269	J-3374	920.51	Lakes	0.20	1217.89	128.66
2180	J-1160	755.03	Forest	0.08	1052.54	128.71
2904	J-1573	754.40	Forest	1.48	1051.91	128.72
6315	J-3401	753.99	Forest	1.48	1051.80	128.85
1290	J-670	920.00	Lakes	0.20	1217.89	128.88
3378	J-1838	759.28	Forest	0.08	1057.64	129.09
1749	J-892	754.88	Forest	0.68	1053.41	129.16
5596	J-2983	753.21	Forest	0.08	1051.93	129.24
1935	J-1012	766.17	Forest	0.68	1064.90	129.25
7090	J-3854	756.95	Forest	0.08	1055.70	129.25
2714	J-1465	766.13	Forest	0.28	1064.94	129.28
5141	J-2722	758.61	Forest	0.08	1057.64	129.37
3034	J-1632	765.88	Forest	0.08	1064.94	129.39
5769	J-3084	765.85	Forest	0.08	1064.92	129.39
2577	J-1384	765.81	Forest	0.08	1064.93	129.42
5432	J-2890	765.55	Forest	0.28	1064.90	129.52
69	J-27	756.32	Forest	0.08	1055.70	129.53

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7066	J-3840	765.39	Forest	0.08	1064.93	129.60
2838	J-1538	752.07	Forest	1.48	1051.80	129.68
5433	J-2891	765.15	Forest	0.48	1064.90	129.69
4725	J-2485	751.99	Forest	0.08	1051.89	129.75
790	J-450	751.94	Forest	0.08	1051.89	129.77
718	J-413	764.67	Forest	0.08	1064.92	129.90
2926	J-1583	764.66	Forest	0.88	1064.96	129.92
4726	J-2486	751.54	Forest	0.28	1051.89	129.95
5053	J-2674	757.11	Forest	1.28	1057.59	130.00
6645	J-3596	764.32	Forest	0.08	1064.92	130.06
5054	J-2675	756.73	Forest	0.48	1057.59	130.17
159	J-78	916.03	Lakes	0.20	1216.98	130.21
4342	J-2293	751.47	Forest	0.68	1052.54	130.26
3058	J-1647	756.51	Forest	0.08	1057.64	130.29
3059	J-1648	756.41	Forest	0.08	1057.64	130.33
713	J-410	915.99	Lakes	0.20	1217.85	130.60
5204	J-2757	750.65	Forest	0.88	1052.54	130.61
5035	J-2663	915.95	Lakes	0.20	1217.85	130.62
3686	J-2010	916.25	Lakes	0.37	1218.14	130.62
4905	J-2587	916.08	Lakes	0.29	1218.14	130.69
4584	J-2407	914.82	Lakes	0.20	1216.98	130.73
6600	J-3568	916.00	Lakes	0.29	1218.31	130.79
6601	J-3569	916.00	Lakes	0.20	1218.31	130.79
6113	J-3280	915.40	Lakes	0.20	1218.17	130.99
1259	J-654	750.23	Forest	0.28	1053.01	131.00
6114	J-3281	915.30	Lakes	0.20	1218.17	131.04
6486	J-3501	750.01	Forest	0.08	1053.01	131.09
7122	J-3872	915.12	Lakes	0.20	1218.14	131.11
6106	J-3276	749.27	Forest	1.68	1052.54	131.21
4904	J-2586	914.78	Lakes	0.20	1218.14	131.25
272	J-137	915.16	Lakes	0.20	1218.61	131.28
6644	J-3595	761.32	Forest	0.08	1064.92	131.35
273	J-138	914.97	Lakes	0.20	1218.61	131.37
738	J-423	748.09	Forest	0.28	1051.92	131.45
3628	J-1978	760.94	Forest	0.28	1064.93	131.52
6107	J-3277	748.52	Forest	0.48	1052.54	131.54
4156	J-2231	1018.17	Stewartsville	0.42	1322.92	131.85
6937	J-3768	752.10	Forest	0.48	1057.48	132.12
98	J-46	911.37	Lakes	0.20	1216.98	132.22
1959	J-1028	759.14	Forest	0.48	1064.94	132.30
1577	J-782	911.10	Lakes	0.20	1216.98	132.34
1576	J-781	911.01	Lakes	0.20	1216.98	132.38
1281	J-665	751.49	Forest	0.48	1057.48	132.39
7058	J-3836	745.06	Forest	0.28	1051.80	132.71
1096	J-588	911.54	Lakes	0.20	1218.31	132.72
2181	J-1161	745.74	Forest	0.88	1052.53	132.73
1950	J-1022	1016.00	Stewartsville	0.40	1322.91	132.79
5751	J-3074	911.25	Lakes	0.20	1218.28	132.84
2567	J-1378	744.65	Forest	1.68	1051.80	132.89
2862	J-1551	744.59	Forest	1.28	1051.81	132.92
6132	J-3292	911.02	Lakes	0.20	1218.31	132.95
4970	J-2625	1015.59	Stewartsville	0.11	1322.92	132.97
5750	J-3073	910.94	Lakes	0.20	1218.28	132.97
7108	J-3864	910.39	Lakes	0.20	1217.85	133.02
1646	J-826	909.39	Lakes	0.20	1216.98	133.08
7109	J-3865	910.20	Lakes	0.20	1217.85	133.10
7139	J-3881	910.11	Lakes	0.20	1217.85	133.14
4939	J-2607	909.09	Lakes	0.20	1216.98	133.21
97	J-45	909.00	Lakes	0.37	1216.98	133.25
6290	J-3386	743.81	Forest	0.48	1051.92	133.30
3807	J-2073	743.59	Forest	0.88	1051.80	133.35
1871	J-971	756.09	Forest	0.48	1064.82	133.57
814	J-460	1014.18	Stewartsville	0.26	1322.92	133.58
4138	J-2224	756.00	Forest	0.08	1064.93	133.66
4174	J-2239	755.91	Forest	0.08	1064.93	133.70
719	J-414	755.85	Forest	0.08	1064.92	133.72
1958	J-1027	755.66	Forest	0.08	1064.94	133.81
592	J-339	1013.67	Stewartsville	0.11	1322.95	133.81
6124	J-3287	908.48	Lakes	0.20	1218.16	133.98
3712	J-2025	741.81	Forest	1.88	1051.80	134.12
591	J-338	1012.81	Stewartsville	0.11	1322.95	134.18
2177	J-1158	742.26	Forest	0.88	1052.54	134.24
6125	J-3288	907.52	Lakes	0.20	1218.16	134.40
4755	J-2502	741.85	Forest	0.48	1052.54	134.42
2568	J-1379	741.06	Forest	0.08	1051.80	134.44
5369	J-2854	740.44	Forest	0.08	1051.80	134.71
6856	J-3719	1010.59	Stewartsville	0.40	1322.92	135.13
2178	J-1159	740.20	Forest	0.68	1052.54	135.13
6857	J-3720	1010.43	Stewartsville	1.36	1322.92	135.20
4420	J-2319	739.89	Forest	0.48	1052.53	135.26
5688	J-2978	739.84	Forest	0.48	1052.53	135.29
6194	J-3328	738.56	Forest	1.08	1052.53	135.84
5589	J-2979	738.50	Forest	0.48	1052.53	135.87
5741	J-3068	750.24	Forest	0.48	1064.93	136.15
4630	J-2433	902.22	Lakes	0.20	1216.97	136.18
3338	J-1816	749.95	Forest	1.68	1064.81	136.22
815	J-461	1008.03	Stewartsville	0.26	1322.92	136.24
4853	J-2557	903.13	Lakes	0.63	1218.03	136.24
4631	J-2434	902.05	Lakes	0.20	1216.97	136.25
4852	J-2556	903.04	Lakes	1.24	1218.03	136.28
5504	J-2930	744.02	Forest	1.48	1059.00	136.28
1934	J-1011	749.75	Forest	0.48	1064.90	136.35
3097	J-1672	743.84	Forest	0.48	1059.00	136.36
3096	J-1671	743.71	Forest	0.48	1059.00	136.41
3355	J-1826	741.74	Forest	0.08	1057.64	136.67
2722	J-1469	748.65	Forest	0.08	1064.81	136.79
4139	J-2225	748.68	Forest	0.28	1064.93	136.83
6707	J-3632	741.25	Forest	0.08	1057.64	136.89
5377	J-2859	748.41	Forest	0.48	1064.81	136.89

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
150	J-73	739.38	Forest	0.08	1055.93	136.96
3453	J-1880	748.20	Forest	1.28	1064.82	136.98
5376	J-2858	748.00	Forest	0.48	1064.81	137.07
6739	J-3650	748.00	Forest	0.08	1064.93	137.12
6740	J-3651	748.00	Forest	0.88	1064.93	137.12
3376	J-1837	900.88	Lakes	0.55	1218.03	137.22
3317	J-1804	900.64	Lakes	3.35	1218.03	137.32
3603	J-1966	747.24	Forest	1.88	1064.81	137.40
3354	J-1825	740.02	Forest	0.08	1057.64	137.42
3454	J-1881	747.15	Forest	0.28	1064.82	137.44
5615	J-2994	738.23	Forest	0.28	1056.25	137.59
3316	J-1803	900.00	Lakes	0.29	1218.03	137.60
5845	J-3127	746.61	Forest	0.48	1064.82	137.67
6921	J-3759	899.76	Lakes	0.20	1218.03	137.70
3273	J-1780	899.76	Lakes	0.55	1218.03	137.70
3272	J-1779	899.42	Lakes	0.20	1218.03	137.85
5165	J-2736	746.18	Forest	0.08	1064.81	137.86
2647	J-1425	745.89	Forest	0.88	1064.82	137.98
4456	J-2332	1003.97	Stewartsville	0.26	1322.96	138.01
3374	J-1836	899.03	Lakes	0.55	1218.03	138.02
6495	J-3506	736.86	Forest	0.08	1055.93	138.04
1198	J-627	1003.86	Stewartsville	1.55	1322.96	138.06
1095	J-587	899.17	Lakes	0.20	1218.32	138.08
6474	J-3494	745.33	Forest	0.68	1064.82	138.23
5492	J-2924	898.70	Lakes	0.20	1218.32	138.28
175	J-86	736.00	Forest	0.08	1056.25	138.56
3515	J-1917	897.01	Lakes	0.20	1218.03	138.89
2648	J-1426	743.57	Forest	0.88	1064.82	138.99
1840	J-950	743.43	Forest	0.48	1064.81	139.05
2601	J-1398	735.73	Forest	0.68	1057.64	139.28
6220	J-3344	735.55	Forest	0.48	1057.64	139.35
1261	J-655	1000.03	Stewartsville	0.26	1322.92	139.70
6952	J-3776	895.01	Lakes	0.29	1218.03	139.75
7308	J-3958	893.74	Lakes	0.20	1216.97	139.85
4644	J-2441	999.68	Stewartsville	0.11	1322.92	139.85
4990	J-2636	741.47	Forest	0.08	1064.81	139.89
3819	J-2078	999.55	Stewartsville	1.41	1322.91	139.90
3389	J-1843	893.52	Lakes	0.20	1216.97	139.94
4991	J-2637	741.31	Forest	0.68	1064.81	139.96
3390	J-1844	893.18	Lakes	0.20	1216.97	140.09
3514	J-1916	894.21	Lakes	0.20	1218.03	140.10
1841	J-951	740.11	Forest	1.08	1064.80	140.48
3166	J-1714	739.29	Forest	0.28	1064.93	140.89
2795	J-1513	739.08	Forest	0.08	1064.93	140.98
267	J-134	892.19	Lakes	0.20	1218.10	141.00
268	J-135	892.19	Lakes	0.20	1218.10	141.00
270	J-136	892.19	Lakes	0.20	1218.10	141.01
3571	J-1947	891.49	Lakes	1.24	1218.03	141.28
1211	J-634	726.21	Forest	0.08	1053.02	141.39
4270	J-2272	730.82	Forest	1.88	1057.74	141.45
4660	J-2449	730.35	Forest	0.48	1057.32	141.46
6431	J-3469	995.82	Stewartsville	0.11	1322.91	141.52
6719	J-3639	737.82	Forest	0.08	1064.93	141.52
140	J-69	730.00	Forest	1.28	1057.32	141.61
4481	J-2347	730.39	Forest	0.68	1057.74	141.63
5889	J-3151	890.72	Lakes	0.20	1218.10	141.64
6725	J-3642	724.44	Forest	0.88	1051.90	141.67
5858	J-3134	725.48	Forest	0.48	1053.02	141.71
2602	J-1399	729.76	Forest	0.88	1057.64	141.86
1232	J-645	888.20	Lakes	0.20	1216.30	141.95
244	J-119	889.49	Lakes	0.20	1218.03	142.14
6605	J-3571	736.20	Forest	0.48	1064.81	142.17
6606	J-3572	736.16	Forest	1.68	1064.81	142.19
243	J-118	889.19	Lakes	0.20	1218.03	142.27
5763	J-3081	887.24	Lakes	0.46	1216.30	142.37
5288	J-2806	887.04	Lakes	0.20	1216.49	142.54
2622	J-1411	735.27	Forest	0.68	1064.81	142.58
1231	J-644	886.88	Lakes	0.20	1216.49	142.61
6649	J-3598	734.93	Forest	0.48	1064.81	142.72
2135	J-1132	887.97	Lakes	0.72	1218.03	142.80
6650	J-3599	734.18	Forest	1.68	1064.81	143.05
5437	J-2893	992.26	Stewartsville	0.40	1322.92	143.06
3623	J-1975	992.02	Stewartsville	0.11	1322.91	143.16
4625	J-2430	991.88	Stewartsville	0.11	1322.92	143.23
211	J-97	887.00	Lakes	0.20	1218.11	143.26
210	J-96	886.94	Lakes	0.20	1218.11	143.28
1022	J-556	991.53	Stewartsville	0.26	1322.92	143.38
6833	J-3706	886.60	Lakes	0.20	1218.03	143.39
4157	J-2232	991.16	Stewartsville	0.69	1322.92	143.53
2597	J-1396	720.00	Forest	0.48	1051.80	143.55
5993	J-3209	886.77	Lakes	0.20	1218.61	143.57
5679	J-3032	733.01	Forest	0.88	1064.87	143.58
6834	J-3707	885.90	Lakes	0.29	1218.03	143.69
4612	J-2423	885.87	Lakes	0.20	1218.03	143.71
974	J-535	886.41	Lakes	0.20	1218.61	143.73
3426	J-1864	885.71	Lakes	0.20	1218.03	143.78
5678	J-3031	732.51	Forest	0.08	1064.87	143.79
3427	J-1865	885.66	Lakes	0.20	1218.03	143.80
7339	J-3969	732.43	Forest	0.48	1064.81	143.81
3590	J-1958	885.62	Lakes	0.29	1218.03	143.82
7340	J-3970	732.29	Forest	0.08	1064.81	143.86
1949	J-1021	990.38	Stewartsville	0.11	1322.91	143.87
664	J-383	885.46	Lakes	0.37	1218.03	143.89
6726	J-3643	719.24	Forest	0.68	1051.90	143.93
2134	J-1131	884.91	Lakes	0.20	1218.03	144.12
1089	J-585	728.00	Forest	0.48	1061.13	144.13
5176	J-2742	728.00	Forest	0.08	1061.13	144.13
1312	J-678	884.26	Lakes	0.29	1217.83	144.32
3056	J-1646	884.41	Lakes	0.46	1218.03	144.34

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
3055	J-1645	884.40	Lakes	0.29	1218.03	144.34
6267	J-3373	884.05	Lakes	0.20	1217.83	144.41
3591	J-1959	882.68	Lakes	2.97	1218.03	145.09
5613	J-2993	729.54	Forest	0.48	1064.93	145.11
1834	J-946	729.36	Forest	1.08	1064.81	145.13
2596	J-1395	716.00	Forest	0.88	1051.80	145.28
545	J-310	881.83	Lakes	0.20	1218.12	145.50
6587	J-3561	881.71	Lakes	0.20	1218.12	145.55
7875	J-4136	881.60	Lakes	0.46	1218.03	145.55
5612	J-2992	727.29	Forest	0.48	1064.93	146.08
8375	J-4175	720.32	Forest	0.08	1060.00	146.96
2623	J-1412	724.28	Forest	0.48	1064.81	147.33
1835	J-947	723.70	Forest	0.48	1064.81	147.58
4745	J-2497	981.74	Stewartsville	0.11	1322.95	147.63
1274	J-661	874.35	Lakes	0.20	1216.06	147.84
6533	J-3528	873.86	Lakes	0.20	1216.06	148.06
1199	J-628	980.00	Stewartsville	0.11	1322.95	148.38
770	J-439	874.90	Lakes	0.29	1218.03	148.46
4636	J-2437	874.17	Lakes	0.20	1218.03	148.77
4921	J-2596	720.24	Forest	0.08	1064.93	149.13
3422	J-1862	720.18	Forest	0.08	1064.93	149.16
3421	J-1861	719.87	Forest	0.28	1064.93	149.29
1843	J-952	719.74	Forest	0.08	1064.93	149.35
672	J-388	976.63	Stewartsville	0.69	1322.92	149.82
7597	J-4060	870.57	Lakes	0.20	1217.82	150.24
671	J-387	975.09	Stewartsville	0.11	1322.92	150.49
5853	J-3131	716.05	Forest	1.88	1064.82	150.89
5569	J-2968	868.96	Lakes	0.20	1217.82	150.93
1844	J-953	716.00	Forest	0.88	1064.93	150.96
3689	J-2012	708.49	Forest	1.08	1057.49	150.99
1313	J-679	868.58	Lakes	0.20	1217.82	151.10
5854	J-3132	715.49	Forest	0.08	1064.82	151.14
4955	J-2616	708.02	Forest	0.88	1057.49	151.20
5356	J-2846	866.99	Lakes	0.20	1216.97	151.42
5357	J-2847	866.30	Lakes	0.20	1216.97	151.72
1670	J-840	971.62	Stewartsville	0.26	1322.91	151.99
6535	J-3529	971.13	Stewartsville	0.11	1322.92	152.20
5604	J-2988	866.02	Lakes	0.46	1218.03	152.30
684	J-394	970.66	Stewartsville	0.11	1322.92	152.41
3688	J-2011	704.94	Forest	0.88	1057.42	152.50
4518	J-2368	704.63	Forest	0.48	1057.42	152.63
4733	J-2490	864.03	Lakes	0.20	1217.78	153.05
1671	J-841	969.03	Stewartsville	0.55	1322.91	153.11
3180	J-1722	862.90	Lakes	0.20	1216.97	153.19
2473	J-1327	863.62	Lakes	0.63	1217.78	153.23
3181	J-1723	862.73	Lakes	1.06	1216.97	153.27
4694	J-2468	862.58	Lakes	0.37	1216.97	153.33
3637	J-1983	863.35	Lakes	0.29	1217.78	153.34
2050	J-1085	863.50	Lakes	0.20	1218.03	153.39
7165	J-3895	863.17	Lakes	0.20	1218.03	153.53
8076	J-4166	863.12	Lakes	0.20	1218.03	153.55
7016	J-3813	697.52	Forest	0.08	1053.02	153.81
4717	J-2480	861.73	Lakes	0.29	1217.76	154.04
7243	J-3931	861.71	Lakes	0.37	1217.76	154.05
4718	J-2481	861.54	Lakes	0.29	1217.76	154.12
4810	J-2532	860.60	Lakes	0.20	1216.98	154.19
7244	J-3932	861.36	Lakes	0.20	1217.76	154.20
2038	J-1078	861.61	Lakes	0.20	1218.03	154.21
185	J-89	860.35	Lakes	0.20	1216.98	154.30
5257	J-2789	861.03	Lakes	0.29	1217.77	154.34
2039	J-1079	861.19	Lakes	0.20	1218.03	154.39
5256	J-2788	860.82	Lakes	0.20	1217.77	154.43
6119	J-3284	861.19	Lakes	0.20	1218.20	154.46
6274	J-3377	859.93	Lakes	1.52	1217.76	154.82
2046	J-1083	860.09	Lakes	0.20	1218.03	154.86
2041	J-1080	860.00	Lakes	0.20	1218.03	154.90
2048	J-1084	859.02	Lakes	0.20	1218.03	155.33
3395	J-1847	858.20	Lakes	0.46	1217.75	155.56
6065	J-3252	858.11	Lakes	0.29	1217.75	155.60
6064	J-3251	857.64	Lakes	0.20	1217.75	155.80
6073	J-3257	857.60	Lakes	0.20	1217.79	155.84
6072	J-3256	856.92	Lakes	0.20	1217.79	156.13
1212	J-635	692.00	Forest	0.08	1053.02	156.19
6273	J-3376	856.63	Lakes	0.37	1217.76	156.24
829	J-469	857.05	Lakes	0.20	1218.20	156.25
6208	J-3337	855.81	Lakes	0.20	1218.01	156.71
139	J-68	694.79	Forest	0.48	1057.20	156.80
1180	J-618	854.57	Lakes	0.55	1218.01	157.25
1268	J-658	852.00	Lakes	0.29	1215.86	157.42
4648	J-2443	852.00	Lakes	0.72	1215.86	157.42
4742	J-2495	852.19	Lakes	0.72	1216.97	157.83
4743	J-2496	851.51	Lakes	0.55	1216.97	158.12
515	J-291	846.91	Lakes	0.20	1218.03	160.57
6500	J-3509	846.22	Lakes	0.20	1217.75	160.74
1622	J-811	846.06	Lakes	0.29	1217.75	160.81
1630	J-816	845.88	Lakes	0.20	1217.75	160.89
7221	J-3921	845.85	Lakes	0.20	1217.75	160.90
6499	J-3508	845.81	Lakes	0.20	1217.75	160.92
178	J-87	844.90	Lakes	0.20	1216.98	160.98
4652	J-2445	844.76	Lakes	0.20	1216.98	161.04
4186	J-2244	843.72	Lakes	0.72	1216.97	161.49
6658	J-3603	844.53	Lakes	0.20	1218.03	161.60
413	J-228	843.99	Lakes	0.20	1217.99	161.81
952	J-525	843.65	Lakes	0.20	1218.24	162.07
412	J-227	842.88	Lakes	0.20	1217.99	162.29
5007	J-2646	842.85	Lakes	0.20	1218.03	162.32
514	J-290	842.77	Lakes	0.20	1218.03	162.36
3731	J-2036	842.73	Lakes	0.20	1218.03	162.38
4098	J-2207	841.49	Lakes	1.24	1216.97	162.45

Node ID	Node Label	Elevation (ft)	Pressure Zone	Demand (gpm)	Calculated Hydraulic Grade (ft)	Pressure (psi)
7014	J-3812	841.53	Lakes	0.20	1218.24	162.98
1148	J-607	840.88	Lakes	0.20	1218.05	163.18
6656	J-3602	839.82	Lakes	0.20	1218.05	163.64
461	J-258	839.33	Lakes	0.20	1218.21	163.92
5887	J-3150	838.89	Lakes	0.20	1218.02	164.03
564	J-322	838.21	Lakes	0.46	1218.02	164.33
6545	J-3535	835.42	Lakes	0.29	1215.66	164.51
4057	J-2188	836.45	Lakes	0.72	1216.97	164.64
3730	J-2035	836.87	Lakes	0.20	1218.03	164.91
6111	J-3279	836.62	Lakes	0.29	1217.99	165.00
1136	J-601	833.96	Lakes	0.55	1215.66	165.14
312	J-162	836.34	Lakes	0.20	1218.21	165.22
5123	J-2712	682.99	Forest	0.08	1064.94	165.25
313	J-163	836.17	Lakes	0.29	1218.21	165.29
550	J-313	835.45	Lakes	0.72	1217.99	165.51
4674	J-2457	835.62	Lakes	0.20	1218.21	165.53
5124	J-2713	682.00	Forest	0.88	1064.94	165.68
4658	J-2448	833.80	Lakes	0.20	1216.98	165.78
58	J-20	833.77	Lakes	0.20	1216.98	165.80
59	J-21	833.64	Lakes	0.37	1216.98	165.85
168	J-83	672.67	Forest	0.08	1056.91	166.24
4294	J-2279	938.48	Stewartsville	0.55	1322.91	166.32
5392	J-2868	938.45	Stewartsville	0.83	1322.91	166.34
6652	J-3600	672.38	Forest	0.08	1056.91	166.37
4056	J-2187	831.19	Lakes	1.41	1216.97	166.91
4601	J-2417	831.10	Lakes	0.37	1216.97	166.95
563	J-321	831.95	Lakes	0.20	1218.02	167.04
2022	J-1068	829.97	Lakes	0.20	1216.98	167.44
4461	J-2335	829.08	Lakes	1.93	1216.97	167.82
4462	J-2336	829.08	Lakes	0.20	1216.97	167.82
6329	J-3409	829.60	Lakes	0.20	1218.25	168.15
7486	J-4023	825.01	Lakes	0.20	1216.97	169.58
463	J-259	826.28	Lakes	0.20	1218.25	169.59
241	J-117	822.18	Lakes	0.37	1218.25	171.36
1214	J-636	822.06	Lakes	0.55	1218.17	171.38
240	J-116	822.02	Lakes	0.37	1218.25	171.43
6067	J-3253	820.03	Lakes	0.20	1218.17	172.26
495	J-278	815.49	Lakes	0.29	1215.51	173.07
1266	J-657	817.44	Lakes	0.20	1218.07	173.33
5579	J-2973	816.54	Lakes	0.20	1218.07	173.72
6647	J-3597	816.45	Lakes	0.20	1218.14	173.80
496	J-279	812.27	Lakes	0.20	1215.51	174.46
1329	J-682	811.66	Lakes	0.20	1218.14	175.87
7808	J-4122	658.30	Forest	0.48	1064.94	175.93
3260	J-1772	914.04	Stewartsville	0.83	1322.91	176.90
3259	J-1771	913.57	Stewartsville	0.26	1322.91	177.10
381	J-207	799.73	Lakes	257.22	1215.48	179.87
2369	J-1271	639.47	Forest	0.48	1064.94	184.08
2368	J-1270	630.22	Forest	0.08	1064.94	188.08

**BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013**

Run 2 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.

Proposed Water System.

All Tanks at Normal Low Level & Proposed Transmission Main - Closed.

Steady State Analysis

Pipe Report - sorted by link label

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
28	P-1	18.00	1.00	130.00	Open	0.08	1057.56	1057.56	0.00	0.00
31	P-2	191.00	1.00	130.00	Open	0.68	1064.92	1064.80	0.12	0.00
34	P-3	3.00	10.00	130.00	Open	52.29	1059.87	1059.87	0.00	0.00
37	P-4	10.00	10.00	130.00	Open	35.45	1064.93	1064.93	0.00	0.00
40	P-5	12.00	10.00	130.00	Open	-0.08	963.96	963.96	0.00	0.00
8578	P-6	20.00	4.00	130.00	Open	0.00	1201.29	1201.29	0.00	0.00
43	P-6	15.00	10.00	130.00	Open	-336.28	1055.82	1055.83	0.01	0.00
8579	P-7	992.00	4.00	130.00	Open	3.75	1201.29	1201.27	0.02	0.00
46	P-7	16.00	10.00	130.00	Open	228.46	1054.95	1054.94	0.01	0.00
49	P-8	16.00	10.00	130.00	Open	-335.21	1055.07	1055.08	0.01	0.00
8582	P-8	60.00	6.00	130.00	Open	0.00	971.50	971.50	0.00	0.00
52	P-9	17.00	10.00	130.00	Open	-217.61	1057.64	1057.65	0.01	0.00
8583	P-9	57.00	6.00	130.00	Open	0.00	1218.60	1218.60	0.00	0.00
55	P-10	19.00	10.00	130.00	Open	-28.46	1054.95	1054.95	0.00	0.00
8585	P-10	14.00	4.00	130.00	Open	12.39	1218.60	1218.60	0.00	0.00
57	P-11	22.00	10.00	130.00	Open	13.42	1216.98	1216.98	0.00	0.00
8586	P-11	15.00	4.00	130.00	Open	12.39	1022.96	1022.96	0.00	0.00
60	P-12	24.00	10.00	130.00	Open	-220.56	1057.75	1057.76	0.01	0.00
8590	P-13	100.00	6.00	130.00	Open	-0.54	1075.00	1075.00	0.00	0.00
63	P-13	31.00	10.00	130.00	Open	228.45	1054.94	1054.93	0.01	0.00
65	P-14	32.00	10.00	130.00	Open	2.32	1058.41	1058.41	0.00	0.00
8606	P-14	257.00	3.00	130.00	Open	-6.56	825.50	825.55	0.05	0.00
68	P-15	43.00	10.00	130.00	Open	265.99	1055.70	1055.67	0.02	0.00
8607	P-15	297.00	3.00	130.00	Open	-6.56	1055.61	1055.67	0.06	0.00
8610	P-16	7.00	8.00	130.00	Open	2.39	1217.85	1217.85	0.00	0.00
71	P-16	43.00	10.00	130.00	Open	0.28	1059.87	1059.87	0.00	0.00
8611	P-17	6.00	8.00	130.00	Open	2.39	1068.85	1068.85	0.00	0.00
74	P-17	51.00	10.00	130.00	Open	247.08	1055.32	1055.29	0.02	0.00
77	P-18	53.00	10.00	130.00	Open	23.16	1064.98	1064.98	0.00	0.00
8613	P-18	627.00	20.00	130.00	Open	-226.68	1064.99	1065.00	0.01	0.00
80	P-19	57.00	10.00	130.00	Open	16.94	1064.93	1064.93	0.00	0.00
8615	P-19	655.00	30.00	130.00	Open	-36.51	1064.94	1064.94	0.00	0.00
83	P-20	72.00	10.00	130.00	Open	-322.52	1059.82	1059.87	0.05	0.00
8618	P-21	20.00	30.00	130.00	Open	-36.51	1064.94	1064.94	0.00	0.00
85	P-21	74.00	10.00	130.00	Open	261.42	1056.21	1056.17	0.04	0.00
88	P-22	84.00	10.00	130.00	Open	-341.62	1056.61	1056.68	0.07	0.00
8619	P-22	124.00	30.00	130.00	Open	-36.51	1064.94	1064.94	0.00	0.00
91	P-23	109.00	10.00	130.00	Open	36.92	1064.95	1064.94	0.00	0.00
94	P-24	133.00	10.00	130.00	Open	-347.04	1058.41	1058.52	0.12	0.00
96	P-25	134.00	10.00	130.00	Open	11.88	1216.98	1216.98	0.00	0.00
8628	P-26	100.00	36.00	130.00	Open	0.00	800.00	800.00	0.00	0.00
99	P-26	178.00	10.00	130.00	Open	41.07	1064.95	1064.95	0.00	0.00
8629	P-27	100.00	36.00	130.00	Open	0.00	1064.94	1064.94	0.00	0.00
102	P-27	154.00	10.00	130.00	Open	7.84	1059.87	1059.87	0.00	0.00
8656	P-28	3508.00	12.00	130.00	Open	42.97	1323.01	1322.98	0.03	0.00
105	P-28	161.00	10.00	130.00	Open	-342.17	1056.68	1056.82	0.14	0.00
107	P-29	164.00	10.00	130.00	Open	40.91	1064.95	1064.95	0.00	0.00
8660	P-30	53.00	10.00	130.00	Open	0.00	1670.00	1670.00	0.00	0.00
108	P-30	181.00	10.00	130.00	Open	41.75	1064.95	1064.95	0.00	0.00
110	P-31	189.00	10.00	130.00	Open	35.30	1064.93	1064.93	0.00	0.00
8661	P-31	4182.00	10.00	130.00	Open	0.00	1323.01	1323.01	0.00	0.00
112	P-32	214.00	10.00	130.00	Open	-301.36	1059.01	1059.15	0.14	0.00
8680	P-32	15015.00	12.00	130.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
115	P-33	214.00	10.00	130.00	Open	7.29	1059.87	1059.87	0.00	0.00
8681	P-33	9718.00	20.00	130.00	Open	0.00	1064.96	1064.96	0.00	0.00
116	P-34	219.00	10.00	130.00	Open	-342.53	1056.82	1057.00	0.19	0.00
8682	P-34	2712.00	16.00	130.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
118	P-35	226.00	10.00	130.00	Open	27.30	1064.93	1064.93	0.00	0.00
8685	P-35	1000.00	20.00	130.00	Open	0.00	1200.00	1200.00	0.00	0.00
119	P-36	243.00	10.00	130.00	Open	-259.95	1062.25	1062.37	0.12	0.00
8686	P-36	1000.00	20.00	130.00	Open	0.00	1064.96	1064.96	0.00	0.00
8696	P-37	14541.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
122	P-37	246.00	10.00	130.00	Open	-340.71	1056.15	1056.35	0.21	0.00
125	P-38	264.00	10.00	130.00	Open	251.64	1061.76	1061.63	0.13	0.00
8698	P-38	11295.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
128	P-39	264.00	10.00	130.00	Open	-19.08	1064.98	1064.98	0.00	0.00
8700	P-39	14908.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8702	P-40	6907.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
131	P-40	292.00	10.00	130.00	Open	-218.37	1057.65	1057.75	0.11	0.00
8704	P-41	11943.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
132	P-41	296.00	10.00	130.00	Open	25.07	1064.99	1064.99	0.00	0.00
135	P-42	307.00	10.00	130.00	Open	-341.06	1056.35	1056.61	0.26	0.00
8706	P-42	4968.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8708	P-43	7025.00	24.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
136	P-43	313.00	10.00	130.00	Open	-344.64	1058.14	1058.41	0.27	0.00
138	P-44	323.00	10.00	130.00	Open	-211.56	1057.20	1057.32	0.11	0.00
141	P-45	374.00	10.00	130.00	Open	-339.75	1055.83	1056.15	0.31	0.00
8712	P-45	12618.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8714	P-46	20979.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
142	P-46	383.00	10.00	130.00	Open	-322.37	1059.53	1059.82	0.29	0.00
144	P-47	401.00	10.00	130.00	Open	252.20	1061.95	1061.76	0.19	0.00
8715	P-47	10795.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
146	P-48	414.00	10.00	130.00	Open	259.35	1055.67	1055.46	0.21	0.00
8717	P-48	1283.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8718	P-49	4641.00	20.00	121.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
148	P-49	539.00	10.00	130.00	Open	22.80	1064.98	1064.98	0.00	0.00
149	P-50	436.00	10.00	130.00	Open	266.15	1055.93	1055.70	0.23	0.00
151	P-51	482.00	10.00	130.00	Open	-290.57	1058.71	1059.01	0.30	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
153	P-52	491.00	10.00	130.00	Open	-290.01	1058.40	1058.71	0.31	0.00
8731	P-52	500.00	24.00	131.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8732	P-53	500.00	24.00	131.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
155	P-53	486.00	10.00	130.00	Open	16.71	1059.87	1059.87	0.00	0.00
157	P-54	498.00	10.00	130.00	Open	14.61	1216.98	1216.98	0.00	0.00
160	P-55	498.00	10.00	130.00	Open	-348.95	1059.09	1059.53	0.44	0.00
162	P-56	540.00	10.00	130.00	Open	-333.90	1054.63	1055.07	0.44	0.00
164	P-57	577.00	10.00	130.00	Open	-312.12	1060.72	1061.13	0.41	0.00
167	P-58	548.00	10.00	130.00	Open	266.81	1057.20	1056.91	0.29	0.00
169	P-59	572.00	10.00	130.00	Open	-305.28	1059.87	1060.27	0.39	0.00
172	P-60	580.00	10.00	130.00	Open	258.99	1062.25	1061.95	0.29	0.00
173	P-61	610.00	10.00	130.00	Open	-28.46	963.96	963.97	0.01	0.00
174	P-62	603.00	10.00	130.00	Open	266.30	1056.25	1055.93	0.32	0.00
176	P-63	654.00	10.00	130.00	Open	-348.59	1058.52	1059.09	0.57	0.00
177	P-64	697.00	10.00	130.00	Open	12.45	1216.98	1216.98	0.00	0.00
179	P-65	649.00	10.00	130.00	Open	-221.32	1057.76	1058.01	0.24	0.00
181	P-66	657.00	10.00	130.00	Open	12.85	1216.98	1216.98	0.00	0.00
182	P-67	665.00	10.00	130.00	Open	-305.84	1060.27	1060.72	0.46	0.00
183	P-68	713.00	10.00	130.00	Open	16.86	1059.87	1059.87	0.00	0.00
184	P-69	727.00	10.00	130.00	Open	13.82	1216.98	1216.98	0.00	0.00
186	P-70	736.00	10.00	130.00	Open	227.70	1054.93	1054.63	0.29	0.00
188	P-71	819.00	10.00	130.00	Open	-36.36	1064.93	1064.94	0.01	0.00
189	P-72	955.00	10.00	130.00	Open	247.92	1061.63	1061.19	0.44	0.00
191	P-73	907.00	10.00	130.00	Open	-335.37	1055.08	1055.82	0.74	0.00
192	P-74	923.00	10.00	130.00	Open	-213.32	1057.32	1057.64	0.33	0.00
193	P-75	964.00	10.00	130.00	Open	246.97	1061.19	1060.74	0.45	0.00
195	P-76	1201.00	10.00	130.00	Open	-237.43	1060.23	1060.74	0.52	0.00
197	P-77	1003.00	10.00	130.00	Open	14.22	1216.98	1216.98	0.00	0.00
198	P-78	1040.00	10.00	130.00	Open	-222.48	1058.01	1058.40	0.40	0.00
199	P-79	1036.00	10.00	130.00	Open	257.59	1055.46	1054.95	0.52	0.00
200	P-80	1064.00	10.00	130.00	Open	-303.52	1059.15	1059.87	0.72	0.00
201	P-81	1308.00	10.00	130.00	Open	24.72	1064.99	1064.98	0.01	0.00
202	P-82	1104.00	10.00	130.00	Open	274.80	1056.83	1056.21	0.62	0.00
204	P-83	1246.00	10.00	130.00	Open	266.65	1056.91	1056.25	0.66	0.00
205	P-84	1338.00	10.00	130.00	Open	-342.88	1057.00	1058.14	1.14	0.00
206	P-85	1422.00	10.00	130.00	Open	246.53	1055.29	1054.64	0.65	0.00
208	P-86	1698.00	10.00	130.00	Open	258.31	1056.17	1055.32	0.85	0.00
209	P-87	1.00	12.00	130.00	Open	81.55	1218.11	1218.11	0.00	0.00
212	P-88	1.00	12.00	130.00	Open	-0.08	1051.81	1051.81	0.00	0.00
215	P-89	1.00	12.00	130.00	Open	0.08	1051.81	1051.81	0.00	0.00
218	P-90	2.00	12.00	130.00	Open	-359.47	1064.02	1064.02	0.00	0.00
221	P-91	2.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
224	P-92	2.00	12.00	130.00	Open	-25.18	1052.04	1052.04	0.00	0.00
227	P-93	3.00	12.00	130.00	Open	-0.23	981.48	981.48	0.00	0.00
230	P-94	4.00	12.00	130.00	Open	205.96	1056.92	1056.92	0.00	0.00
233	P-95	4.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
236	P-96	4.00	12.00	130.00	Open	-80.20	1052.02	1052.02	0.00	0.00
239	P-97	4.00	12.00	130.00	Open	-0.37	1218.25	1218.25	0.00	0.00
242	P-98	4.00	12.00	130.00	Open	18.92	1218.03	1218.03	0.00	0.00
245	P-99	5.00	12.00	130.00	Open	7.14	1052.99	1052.99	0.00	0.00
248	P-100	5.00	12.00	130.00	Open	-59.53	1053.02	1053.02	0.00	0.00
251	P-101	5.00	12.00	130.00	Open	0.08	1064.01	1064.01	0.00	0.00
254	P-102	6.00	12.00	130.00	Open	-27.86	1051.89	1051.89	0.00	0.00
257	P-103	6.00	12.00	130.00	Open	-30.97	1057.32	1057.32	0.00	0.00
260	P-104	6.00	12.00	130.00	Open	0.28	1052.21	1052.21	0.00	0.00
263	P-105	6.00	12.00	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
266	P-106	6.00	12.00	130.00	Open	0.60	1218.10	1218.10	0.00	0.00
269	P-107	6.00	12.00	130.00	Open	0.20	1218.10	1218.10	0.00	0.00
271	P-108	6.00	12.00	130.00	Open	0.20	1218.61	1218.61	0.00	0.00
274	P-109	6.00	12.00	130.00	Open	209.48	1057.13	1057.13	0.00	0.00
277	P-110	6.00	12.00	130.00	Open	-0.68	1052.27	1052.27	0.00	0.00
280	P-111	6.00	12.00	130.00	Open	-0.63	1052.56	1052.56	0.00	0.00
283	P-112	6.00	12.00	130.00	Open	0.08	1052.20	1052.20	0.00	0.00
286	P-113	7.00	12.00	130.00	Open	3.66	1052.99	1052.99	0.00	0.00
289	P-114	10.00	12.00	130.00	Open	-11.12	1051.81	1051.81	0.00	0.00
291	P-115	10.00	12.00	130.00	Open	-11.20	1051.81	1051.81	0.00	0.00
292	P-116	7.00	12.00	130.00	Open	0.20	1217.88	1217.88	0.00	0.00
295	P-117	7.00	12.00	130.00	Open	32.15	1218.35	1218.35	0.00	0.00
298	P-118	8.00	12.00	130.00	Open	-0.08	1057.32	1057.32	0.00	0.00
300	P-119	8.00	12.00	130.00	Open	0.28	1052.03	1052.03	0.00	0.00
303	P-120	8.00	12.00	130.00	Open	7.88	1051.96	1051.96	0.00	0.00
306	P-121	8.00	12.00	130.00	Open	11.35	1051.81	1051.81	0.00	0.00
308	P-122	8.00	12.00	130.00	Open	17.09	1218.03	1218.03	0.00	0.00
311	P-123	9.00	12.00	130.00	Open	0.29	1218.21	1218.21	0.00	0.00
314	P-124	9.00	12.00	130.00	Open	-8.10	1051.96	1051.96	0.00	0.00
317	P-125	10.00	12.00	130.00	Open	-0.28	1052.32	1052.32	0.00	0.00
320	P-126	10.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
323	P-127	10.00	12.00	130.00	Open	-14.80	1053.01	1053.01	0.00	0.00
326	P-128	11.00	12.00	130.00	Open	0.29	1218.38	1218.38	0.00	0.00
329	P-129	11.00	12.00	130.00	Open	4.01	1052.99	1052.99	0.00	0.00
331	P-130	11.00	12.00	130.00	Open	-0.08	1063.18	1063.18	0.00	0.00
334	P-131	11.00	12.00	130.00	Open	16.87	1064.93	1064.93	0.00	0.00
336	P-132	11.00	12.00	130.00	Open	0.08	1059.77	1059.77	0.00	0.00
339	P-133	11.00	12.00	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
342	P-134	12.00	12.00	130.00	Open	301.76	1057.34	1057.34	0.00	0.00
345	P-135	12.00	12.00	130.00	Open	59.57	1056.83	1056.83	0.00	0.00
348	P-136	12.00	12.00	130.00	Open	0.08	1060.46	1060.46	0.00	0.00
351	P-137	12.00	12.00	130.00	Open	42.85	1322.98	1322.98	0.00	0.00
354	P-138	12.00	12.00	130.00	Open	-0.20	1217.93	1217.93	0.00	0.00
357	P-139	13.00	12.00	130.00	Open	214.90	1057.78	1057.78	0.00	0.00
360	P-140	13.00	12.00	130.00	Open	373.73	1063.19	1063.18	0.01	0.00
362	P-141	13.00	12.00	130.00	Open	-772.31	1064.61	1064.63	0.02	0.00
365	P-142	14.00	12.00	130.00	Open	-2.70	1056.64	1056.64	0.00	0.00
368	P-143	14.00	12.00	130.00	Open	-85.10	1051.93	1051.93	0.00	0.00
371	P-144	14.00	12.00	130.00	Open	-0.20	1219.00	1219.00	0.00	0.00
374	P-145	15.00	12.00	130.00	Open	-0.08	1052.56	1052.56	0.00	0.00
376	P-146	15.00	12.00	130.00	Open	-119.42	1052.24	1052.24	0.00	0.00
379	P-147	16.00	12.00	130.00	Open	257.22	1215.48	1215.48	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
382	P-148	16.00	12.00	130.00	Open	498.38	1053.70	1053.68	0.01	0.00
385	P-149	16.00	12.00	130.00	Open	-199.20	1064.73	1064.74	0.00	0.00
388	P-150	16.00	12.00	130.00	Open	-0.08	1052.88	1052.88	0.00	0.00
391	P-151	17.00	12.00	130.00	Open	-123.42	1054.67	1054.67	0.00	0.00
394	P-152	18.00	12.00	130.00	Open	-2.55	1056.64	1056.64	0.00	0.00
396	P-153	25.00	12.00	130.00	Open	0.48	1057.42	1057.42	0.00	0.00
399	P-154	27.00	12.00	130.00	Open	-0.88	1052.79	1052.79	0.00	0.00
402	P-155	21.00	12.00	130.00	Open	-351.34	1063.24	1063.24	0.01	0.00
405	P-156	23.00	12.00	130.00	Open	0.08	1064.61	1064.61	0.00	0.00
408	P-157	24.00	12.00	130.00	Open	-231.23	1058.24	1058.25	0.00	0.00
411	P-158	24.00	12.00	130.00	Open	0.20	1217.99	1217.99	0.00	0.00
414	P-159	24.00	12.00	130.00	Open	-0.55	981.48	981.48	0.00	0.00
417	P-160	24.00	12.00	130.00	Open	262.94	1216.98	1216.98	0.01	0.00
419	P-161	25.00	12.00	130.00	Open	11.10	1051.96	1051.96	0.00	0.00
422	P-162	28.00	12.00	130.00	Open	-262.49	1054.02	1054.03	0.01	0.00
425	P-163	29.00	12.00	130.00	Open	-44.29	1059.79	1059.79	0.00	0.00
428	P-164	30.00	12.00	130.00	Open	-0.08	1061.76	1061.76	0.00	0.00
431	P-165	31.00	12.00	130.00	Open	-123.07	1054.67	1054.67	0.00	0.00
433	P-166	31.00	12.00	130.00	Open	-53.36	1051.96	1051.96	0.00	0.00
436	P-167	32.00	12.00	130.00	Open	-291.69	1063.23	1063.24	0.01	0.00
438	P-168	35.00	12.00	130.00	Open	0.48	1057.33	1057.33	0.00	0.00
441	P-169	38.00	12.00	130.00	Open	-359.12	1064.01	1064.02	0.01	0.00
442	P-170	38.00	12.00	130.00	Open	202.19	1054.10	1054.10	0.01	0.00
445	P-171	39.00	12.00	130.00	Open	86.99	1052.07	1052.06	0.00	0.00
448	P-172	41.00	12.00	130.00	Open	-283.23	1062.90	1062.91	0.01	0.00
451	P-173	41.00	12.00	130.00	Open	371.00	1062.19	1062.17	0.02	0.00
454	P-174	41.00	12.00	130.00	Open	33.88	1051.98	1051.98	0.00	0.00
457	P-175	42.00	12.00	130.00	Open	285.76	1218.04	1218.02	0.01	0.00
460	P-176	61.00	12.00	130.00	Open	0.68	1218.21	1218.21	0.00	0.00
462	P-177	45.00	12.00	130.00	Open	85.37	1218.25	1218.25	0.00	0.00
464	P-178	48.00	12.00	130.00	Open	16.61	1059.77	1059.77	0.00	0.00
466	P-179	46.00	12.00	130.00	Open	17.51	981.48	981.48	0.00	0.00
469	P-180	46.00	12.00	130.00	Open	16.65	981.48	981.48	0.00	0.00
471	P-181	47.00	12.00	130.00	Open	-58.83	1053.01	1053.01	0.00	0.00
474	P-182	49.00	12.00	130.00	Open	-268.05	1062.55	1062.56	0.01	0.00
477	P-183	50.00	12.00	130.00	Open	109.77	1052.32	1052.32	0.00	0.00
479	P-184	50.00	12.00	130.00	Open	13.90	981.48	981.48	0.00	0.00
482	P-185	57.00	12.00	130.00	Open	340.23	1061.15	1061.13	0.02	0.00
484	P-186	57.00	12.00	130.00	Open	-31.12	1057.32	1057.33	0.00	0.00
485	P-187	68.00	12.00	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
488	P-188	60.00	12.00	130.00	Open	104.54	1052.13	1052.13	0.00	0.00
491	P-189	62.00	12.00	130.00	Open	14.23	1051.96	1051.96	0.00	0.00
494	P-190	67.00	12.00	130.00	Open	0.20	1215.51	1215.51	0.00	0.00
497	P-191	63.00	12.00	130.00	Open	0.38	1064.61	1064.61	0.00	0.00
501	P-193	65.00	12.00	130.00	Open	2.24	1052.99	1052.99	0.00	0.00
504	P-194	66.00	12.00	130.00	Open	-52.25	1051.95	1051.96	0.00	0.00
507	P-195	66.00	12.00	130.00	Open	0.26	1322.91	1322.91	0.00	0.00
510	P-196	67.00	12.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
513	P-197	69.00	12.00	130.00	Open	72.09	1218.03	1218.03	0.00	0.00
516	P-198	69.00	12.00	130.00	Open	95.73	1052.10	1052.10	0.00	0.00
519	P-199	71.00	12.00	130.00	Open	4.60	1052.71	1052.71	0.00	0.00
522	P-200	72.00	12.00	130.00	Open	197.11	1053.99	1053.98	0.01	0.00
525	P-201	73.00	12.00	130.00	Open	12.08	1322.91	1322.91	0.00	0.00
528	P-202	73.00	12.00	130.00	Open	0.08	1057.78	1057.78	0.00	0.00
530	P-203	73.00	12.00	130.00	Open	36.15	1052.03	1052.03	0.00	0.00
533	P-204	78.00	12.00	130.00	Open	278.29	1054.04	1054.03	0.02	0.00
535	P-205	75.00	12.00	130.00	Open	375.24	1060.50	1060.47	0.03	0.00
538	P-206	76.00	12.00	130.00	Open	-234.52	1052.70	1052.71	0.01	0.00
541	P-207	78.00	12.00	130.00	Open	-14.32	1064.94	1064.94	0.00	0.00
544	P-208	80.00	12.00	130.00	Open	81.75	1218.12	1218.11	0.00	0.00
546	P-209	83.00	12.00	130.00	Open	-355.61	1063.59	1063.62	0.03	0.00
549	P-210	84.00	12.00	130.00	Open	62.05	1217.99	1217.99	0.00	0.00
551	P-211	85.00	12.00	130.00	Open	-10.14	1052.04	1052.04	0.00	0.00
554	P-212	86.00	12.00	130.00	Open	38.63	981.49	981.49	0.00	0.00
557	P-213	86.00	12.00	130.00	Open	-234.51	1054.33	1054.34	0.01	0.00
560	P-214	87.00	12.00	130.00	Open	-106.80	1052.19	1052.20	0.00	0.00
562	P-215	88.00	12.00	130.00	Open	64.46	1218.02	1218.02	0.00	0.00
565	P-216	91.00	12.00	130.00	Open	-21.40	1051.96	1051.96	0.00	0.00
568	P-217	91.00	12.00	130.00	Open	360.10	1061.88	1061.84	0.03	0.00
571	P-218	94.00	12.00	130.00	Open	9.83	1218.03	1218.03	0.00	0.00
574	P-219	101.00	12.00	130.00	Open	-35.05	1052.99	1052.99	0.00	0.00
577	P-220	102.00	12.00	130.00	Open	34.03	1051.98	1051.98	0.00	0.00
579	P-221	102.00	12.00	130.00	Open	0.63	1052.03	1052.03	0.00	0.00
581	P-222	103.00	12.00	130.00	Open	0.48	1059.79	1059.79	0.00	0.00
583	P-223	106.00	12.00	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
585	P-224	132.00	12.00	130.00	Open	8.46	1322.91	1322.91	0.00	0.00
587	P-225	108.00	12.00	130.00	Open	341.74	1061.36	1061.33	0.04	0.00
590	P-226	113.00	12.00	130.00	Open	0.11	1322.95	1322.95	0.00	0.00
593	P-227	113.00	12.00	130.00	Open	60.86	1217.93	1217.93	0.00	0.00
595	P-228	114.00	12.00	130.00	Open	-118.71	1052.21	1052.21	0.01	0.00
597	P-229	114.00	12.00	130.00	Open	769.86	1059.33	1059.16	0.18	0.00
600	P-230	151.00	12.00	130.00	Open	101.47	1052.99	1052.98	0.01	0.00
603	P-231	138.00	12.00	130.00	Open	257.22	1215.51	1215.48	0.03	0.00
604	P-232	117.00	12.00	130.00	Open	54.65	1217.88	1217.88	0.00	0.00
606	P-233	125.00	12.00	130.00	Open	-210.07	1054.25	1054.27	0.02	0.00
609	P-234	124.00	12.00	130.00	Open	338.36	1057.64	1057.60	0.04	0.00
612	P-235	126.00	12.00	130.00	Open	82.88	1052.07	1052.07	0.00	0.00
615	P-236	128.00	12.00	130.00	Open	-62.38	1051.98	1051.98	0.00	0.00
617	P-237	156.00	12.00	130.00	Open	23.06	1051.96	1051.96	0.00	0.00
619	P-238	130.00	12.00	130.00	Open	187.62	1053.86	1053.85	0.01	0.00
622	P-239	130.00	12.00	130.00	Open	0.11	1322.92	1322.92	0.00	0.00
625	P-240	134.00	12.00	130.00	Open	-50.34	1051.95	1051.95	0.00	0.00
628	P-241	136.00	12.00	130.00	Open	0.00	981.48	981.48	0.00	0.00
630	P-242	136.00	12.00	130.00	Open	-0.68	1051.97	1051.97	0.00	0.00
633	P-243	136.00	12.00	130.00	Open	165.01	1053.71	1053.70	0.01	0.00
635	P-244	137.00	12.00	130.00	Open	108.30	1052.28	1052.27	0.01	0.00
638	P-245	137.00	12.00	130.00	Open	90.75	1052.02	1052.02	0.00	0.00
641	P-246	139.00	12.00	130.00	Open	0.28	1061.12	1061.12	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
644	P-247	142.00	12.00	130.00	Open	-357.53	1063.82	1063.88	0.05	0.00
647	P-248	141.00	12.00	130.00	Open	-260.03	1062.37	1062.40	0.03	0.00
649	P-249	143.00	12.00	130.00	Open	22.77	1061.13	1061.13	0.00	0.00
652	P-250	147.00	12.00	130.00	Open	-16.06	1052.04	1052.04	0.00	0.00
655	P-251	149.00	12.00	130.00	Open	-29.83	1057.32	1057.32	0.00	0.00
657	P-252	154.00	12.00	130.00	Open	57.48	1051.03	1051.03	0.00	0.00
660	P-253	151.00	12.00	130.00	Open	132.15	1056.81	1056.80	0.01	0.00
663	P-254	202.00	12.00	130.00	Open	24.79	1218.03	1218.03	0.00	0.00
665	P-255	155.00	12.00	130.00	Open	1.19	1061.12	1061.12	0.00	0.00
668	P-256	158.00	12.00	130.00	Open	-138.53	1056.82	1056.83	0.01	0.00
670	P-257	160.00	12.00	130.00	Open	11.20	1322.92	1322.92	0.00	0.00
673	P-258	162.00	12.00	130.00	Open	144.64	1051.89	1051.88	0.01	0.00
676	P-259	162.00	12.00	130.00	Open	769.23	1059.16	1058.90	0.25	0.00
678	P-260	194.00	12.00	130.00	Open	-1.11	981.48	981.48	0.00	0.00
679	P-261	166.00	12.00	130.00	Open	38.65	1322.95	1322.95	0.00	0.00
681	P-262	168.00	12.00	130.00	Open	-132.30	1056.81	1056.82	0.01	0.00
683	P-263	170.00	12.00	130.00	Open	15.25	1322.92	1322.92	0.00	0.00
685	P-264	178.00	12.00	130.00	Open	-281.56	1062.81	1062.85	0.04	0.00
688	P-265	220.00	12.00	130.00	Open	337.45	1057.42	1057.34	0.07	0.00
689	P-266	184.00	12.00	130.00	Open	-13.59	1218.60	1218.60	0.00	0.00
692	P-267	174.00	12.00	130.00	Open	-0.60	1219.00	1219.00	0.00	0.00
694	P-268	184.00	12.00	130.00	Open	444.92	1060.60	1060.50	0.10	0.00
696	P-269	178.00	12.00	130.00	Open	-3.27	1052.04	1052.04	0.00	0.00
699	P-270	179.00	12.00	130.00	Open	0.11	1322.97	1322.97	0.00	0.00
702	P-271	183.00	12.00	130.00	Open	0.60	1218.03	1218.03	0.00	0.00
703	P-272	183.00	12.00	130.00	Open	26.76	1051.81	1051.81	0.00	0.00
706	P-273	188.00	12.00	130.00	Open	16.32	1218.03	1218.03	0.00	0.00
707	P-274	187.00	12.00	130.00	Open	82.64	1052.02	1052.02	0.00	0.00
709	P-275	187.00	12.00	130.00	Open	201.24	1054.10	1054.07	0.02	0.00
711	P-276	188.00	12.00	130.00	Open	49.66	1217.85	1217.85	0.00	0.00
714	P-277	190.00	12.00	130.00	Open	41.82	1322.98	1322.98	0.00	0.00
717	P-278	206.00	12.00	130.00	Open	10.11	1064.92	1064.92	0.00	0.00
720	P-279	204.00	12.00	130.00	Open	-19.11	1051.96	1051.96	0.00	0.00
723	P-280	206.00	12.00	130.00	Open	39.18	981.49	981.49	0.00	0.00
725	P-281	208.00	12.00	130.00	Open	-46.68	1052.02	1052.02	0.00	0.00
727	P-282	209.00	12.00	130.00	Open	70.32	1218.03	1218.02	0.00	0.00
728	P-283	207.00	12.00	130.00	Open	172.66	1053.73	1053.71	0.02	0.00
730	P-284	208.00	12.00	130.00	Open	120.06	1218.38	1218.37	0.01	0.00
732	P-285	210.00	12.00	130.00	Open	-106.96	1052.20	1052.21	0.01	0.00
733	P-286	212.00	12.00	130.00	Open	-283.08	1062.85	1062.90	0.05	0.00
734	P-287	233.00	12.00	130.00	Open	772.77	1065.00	1064.63	0.37	0.00
8749	P-287A	116.00	12.00	130.00	Open	0.00	1064.63	1064.63	0.00	0.00
8750	P-287B	117.00	12.00	130.00	Open	0.00	1065.00	1065.00	0.00	0.00
736	P-288	215.00	12.00	130.00	Open	-72.27	1051.91	1051.92	0.00	0.00
739	P-289	292.00	12.00	130.00	Open	-573.16	1064.74	1065.00	0.26	0.00
741	P-290	220.00	12.00	130.00	Open	-52.60	1051.96	1051.96	0.00	0.00
743	P-291	220.00	12.00	130.00	Open	82.13	1052.07	1052.06	0.01	0.00
745	P-292	221.00	12.00	130.00	Open	-35.33	1057.34	1057.34	0.00	0.00
748	P-293	221.00	12.00	130.00	Open	32.55	1218.35	1218.35	0.00	0.00
750	P-294	225.00	12.00	130.00	Open	-34.15	1057.34	1057.34	0.00	0.00
752	P-295	226.00	12.00	130.00	Open	100.83	1052.13	1052.12	0.01	0.00
754	P-296	306.00	12.00	130.00	Open	-561.18	1064.73	1065.00	0.27	0.00
755	P-297	241.00	12.00	130.00	Open	0.48	1052.71	1052.71	0.00	0.00
757	P-298	240.00	12.00	130.00	Open	-288.62	1063.05	1063.11	0.06	0.00
760	P-299	245.00	12.00	130.00	Open	-20.90	1051.96	1051.96	0.00	0.00
761	P-300	246.00	12.00	130.00	Open	104.55	1052.09	1052.08	0.01	0.00
764	P-301	249.00	12.00	130.00	Open	-284.74	1062.99	1063.05	0.06	0.00
766	P-302	252.00	12.00	130.00	Open	-52.61	1051.96	1051.96	0.00	0.00
767	P-303	252.00	12.00	130.00	Open	35.41	1051.96	1051.96	0.00	0.00
769	P-304	318.00	12.00	130.00	Open	31.16	1218.03	1218.03	0.00	0.00
771	P-305	255.00	12.00	130.00	Open	-190.27	1052.11	1052.14	0.03	0.00
774	P-306	257.00	12.00	130.00	Open	10.97	1051.81	1051.81	0.00	0.00
776	P-307	260.00	12.00	130.00	Open	84.44	1052.08	1052.07	0.01	0.00
778	P-308	260.00	12.00	130.00	Open	11.91	1051.81	1051.81	0.00	0.00
779	P-309	268.00	12.00	130.00	Open	-21.71	1051.96	1051.96	0.00	0.00
782	P-310	264.00	12.00	130.00	Open	-49.38	1051.95	1051.95	0.00	0.00
784	P-311	305.00	12.00	130.00	Open	-20.65	1051.96	1051.96	0.00	0.00
786	P-312	266.00	12.00	130.00	Open	320.44	1061.56	1061.48	0.08	0.00
789	P-313	273.00	12.00	130.00	Open	-29.21	1051.89	1051.89	0.00	0.00
791	P-314	272.00	12.00	130.00	Open	-20.09	1051.96	1051.96	0.00	0.00
793	P-315	278.00	12.00	130.00	Open	16.96	981.48	981.48	0.00	0.00
794	P-316	279.00	12.00	130.00	Open	84.60	1052.08	1052.08	0.01	0.00
795	P-317	271.00	12.00	130.00	Open	358.39	1061.67	1061.56	0.10	0.00
797	P-318	271.00	12.00	130.00	Open	5.65	1322.91	1322.91	0.00	0.00
800	P-319	272.00	12.00	130.00	Open	-51.49	1051.95	1051.95	0.00	0.00
801	P-320	273.00	12.00	130.00	Open	69.89	1051.82	1051.81	0.01	0.00
803	P-321	285.00	12.00	130.00	Open	-14.08	1218.60	1218.60	0.00	0.00
805	P-322	282.00	12.00	130.00	Open	11.45	1051.96	1051.96	0.00	0.00
807	P-323	282.00	12.00	130.00	Open	100.28	1052.12	1052.11	0.01	0.00
809	P-324	287.00	12.00	130.00	Open	0.36	1051.81	1051.81	0.00	0.00
811	P-325	290.00	12.00	130.00	Open	95.88	1052.11	1052.10	0.01	0.00
812	P-326	407.00	12.00	130.00	Open	-24.63	1052.04	1052.04	0.00	0.00
813	P-327	296.00	12.00	130.00	Open	28.83	1322.92	1322.92	0.00	0.00
816	P-328	304.00	12.00	130.00	Open	-40.22	1059.77	1059.77	0.00	0.00
819	P-329	304.00	12.00	130.00	Open	11.44	1051.96	1051.96	0.00	0.00
821	P-330	313.00	12.00	130.00	Open	-36.71	1051.95	1051.95	0.00	0.00
824	P-331	354.00	12.00	130.00	Open	-1.64	1051.96	1051.96	0.00	0.00
826	P-332	405.00	12.00	130.00	Open	7.86	1322.91	1322.91	0.00	0.00
828	P-333	314.00	12.00	130.00	Open	83.69	1218.21	1218.20	0.01	0.00
830	P-334	312.00	12.00	130.00	Open	-771.54	1061.76	1062.25	0.49	0.00
833	P-335	309.00	12.00	130.00	Open	-34.90	1052.99	1052.99	0.00	0.00
834	P-336	318.00	12.00	130.00	Open	-284.19	1062.91	1062.99	0.08	0.00
835	P-337	313.00	12.00	130.00	Open	-19.74	1051.96	1051.96	0.00	0.00
837	P-338	311.00	12.00	130.00	Open	14.12	1051.96	1051.96	0.00	0.00
839	P-339	313.00	12.00	130.00	Open	-134.26	1056.69	1056.71	0.02	0.00
842	P-340	323.00	12.00	130.00	Open	-0.48	1322.91	1322.91	0.00	0.00
843	P-341	324.00	12.00	130.00	Open	370.44	1062.17	1062.04	0.13	0.00
845	P-342	318.00	12.00	130.00	Open	14.14	1322.92	1322.92	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
847	P-343	330.00	12.00	130.00	Open	373.58	1063.18	1063.04	0.14	0.00
849	P-344	324.00	12.00	130.00	Open	96.62	1052.22	1052.21	0.01	0.00
852	P-345	323.00	12.00	130.00	Open	88.23	1056.79	1056.78	0.01	0.00
855	P-346	324.00	12.00	130.00	Open	-14.15	1052.04	1052.04	0.00	0.00
856	P-347	327.00	12.00	130.00	Open	41.14	1322.97	1322.96	0.00	0.00
858	P-348	342.00	12.00	130.00	Open	-233.20	1054.27	1054.33	0.06	0.00
859	P-349	332.00	12.00	130.00	Open	79.82	1052.00	1051.99	0.01	0.00
862	P-350	339.00	12.00	130.00	Open	109.35	1056.80	1056.79	0.01	0.00
863	P-351	337.00	12.00	130.00	Open	80.93	1052.01	1052.00	0.01	0.00
865	P-352	338.00	12.00	130.00	Open	-22.82	1051.96	1051.96	0.00	0.00
867	P-353	355.00	12.00	130.00	Open	16.76	1059.77	1059.77	0.00	0.00
869	P-354	339.00	12.00	130.00	Open	282.35	1218.02	1217.94	0.08	0.00
871	P-355	341.00	12.00	130.00	Open	-209.31	1054.20	1054.25	0.05	0.00
873	P-356	363.00	12.00	130.00	Open	-12.78	1064.94	1064.94	0.00	0.00
876	P-357	342.00	12.00	130.00	Open	-203.75	1054.10	1054.15	0.05	0.00
878	P-358	347.00	12.00	130.00	Open	49.55	1052.03	1052.03	0.00	0.00
880	P-359	348.00	12.00	130.00	Open	29.57	1322.93	1322.93	0.00	0.00
883	P-360	363.00	12.00	130.00	Open	110.12	1052.34	1052.32	0.02	0.00
885	P-361	353.00	12.00	130.00	Open	-358.76	1063.88	1064.01	0.13	0.00
886	P-362	363.00	12.00	130.00	Open	69.61	1060.50	1060.49	0.01	0.00
888	P-363	357.00	12.00	130.00	Open	-69.50	1051.90	1051.91	0.01	0.00
890	P-364	360.00	12.00	130.00	Open	48.60	1052.03	1052.02	0.00	0.00
892	P-365	361.00	12.00	130.00	Open	-21.56	1051.96	1051.96	0.00	0.00
893	P-366	359.00	12.00	130.00	Open	14.60	1064.93	1064.93	0.00	0.00
896	P-367	454.00	12.00	130.00	Open	-112.43	1052.25	1052.27	0.02	0.00
898	P-368	379.00	12.00	130.00	Open	-111.47	1052.24	1052.25	0.02	0.00
899	P-369	366.00	12.00	130.00	Open	-22.27	1051.96	1051.96	0.00	0.00
900	P-370	365.00	12.00	130.00	Open	24.96	1061.13	1061.13	0.00	0.00
902	P-371	367.00	12.00	130.00	Open	81.82	1052.04	1052.03	0.01	0.00
905	P-372	379.00	12.00	130.00	Open	2.59	1052.99	1052.99	0.00	0.00
906	P-373	370.00	12.00	130.00	Open	107.55	1052.27	1052.26	0.02	0.00
908	P-374	532.00	12.00	130.00	Open	338.20	1057.60	1057.42	0.18	0.00
909	P-375	375.00	12.00	130.00	Open	119.66	1218.37	1218.35	0.02	0.00
910	P-376	381.00	12.00	130.00	Open	0.63	1061.12	1061.12	0.00	0.00
911	P-377	409.00	12.00	130.00	Open	91.31	1052.04	1052.02	0.01	0.00
912	P-378	470.00	12.00	130.00	Open	-80.75	1052.02	1052.03	0.01	0.00
913	P-379	387.00	12.00	130.00	Open	-315.95	1052.56	1052.68	0.12	0.00
916	P-380	385.00	12.00	130.00	Open	319.48	1061.48	1061.36	0.12	0.00
917	P-381	387.00	12.00	130.00	Open	0.79	1052.03	1052.03	0.00	0.00
918	P-382	392.00	12.00	130.00	Open	0.38	1064.63	1064.63	0.00	0.00
920	P-383	427.00	12.00	130.00	Open	-2.44	1052.79	1052.79	0.00	0.00
922	P-384	411.00	12.00	130.00	Open	-37.06	1051.95	1051.96	0.00	0.00
923	P-385	396.00	12.00	130.00	Open	13.77	1051.96	1051.96	0.00	0.00
924	P-386	400.00	12.00	130.00	Open	277.75	1217.08	1216.98	0.09	0.00
926	P-387	401.00	12.00	130.00	Open	81.89	1052.02	1052.01	0.01	0.00
927	P-388	405.00	12.00	130.00	Open	-11.68	1052.20	1052.21	0.00	0.00
929	P-389	407.00	12.00	130.00	Open	-2.99	1052.79	1052.79	0.00	0.00
931	P-390	407.00	12.00	130.00	Open	-206.47	1054.15	1054.20	0.06	0.00
932	P-391	410.00	12.00	130.00	Open	20.19	1061.12	1061.12	0.00	0.00
935	P-392	444.00	12.00	130.00	Open	27.03	1061.13	1061.13	0.00	0.00
937	P-393	412.00	12.00	130.00	Open	369.69	1062.04	1061.88	0.17	0.00
938	P-394	412.00	12.00	130.00	Open	107.39	1052.26	1052.24	0.02	0.00
940	P-395	420.00	12.00	130.00	Open	-252.68	1052.71	1052.79	0.08	0.00
942	P-396	424.00	12.00	130.00	Open	-19.67	1218.61	1218.61	0.00	0.00
944	P-397	420.00	12.00	130.00	Open	-226.23	1057.97	1058.04	0.07	0.00
947	P-398	552.00	12.00	130.00	Open	7.02	1052.79	1052.79	0.00	0.00
949	P-399	438.00	12.00	130.00	Open	12.51	1051.96	1051.96	0.00	0.00
951	P-400	431.00	12.00	130.00	Open	84.97	1218.25	1218.24	0.01	0.00
953	P-401	433.00	12.00	130.00	Open	94.42	1052.10	1052.09	0.01	0.00
955	P-402	440.00	12.00	130.00	Open	18.12	1061.12	1061.12	0.00	0.00
957	P-403	514.00	12.00	130.00	Open	-119.07	1052.21	1052.24	0.03	0.00
958	P-404	447.00	12.00	130.00	Open	109.62	1052.32	1052.30	0.02	0.00
960	P-405	445.00	12.00	130.00	Open	-288.97	1063.11	1063.23	0.11	0.00
961	P-406	448.00	12.00	130.00	Open	-21.41	1052.88	1052.88	0.00	0.00
963	P-407	454.00	12.00	130.00	Open	262.05	1216.98	1216.88	0.10	0.00
965	P-408	454.00	12.00	130.00	Open	-31.68	1057.33	1057.33	0.00	0.00
967	P-409	455.00	12.00	130.00	Open	96.46	1052.21	1052.20	0.02	0.00
969	P-410	510.00	12.00	130.00	Open	-8.46	1051.96	1051.96	0.00	0.00
970	P-411	508.00	12.00	130.00	Open	373.07	1062.85	1062.64	0.21	0.00
973	P-412	494.00	12.00	130.00	Open	-20.07	1218.61	1218.61	0.00	0.00
975	P-413	464.00	12.00	130.00	Open	61.81	1051.04	1051.03	0.01	0.00
977	P-414	465.00	12.00	130.00	Open	359.35	1061.84	1061.67	0.18	0.00
978	P-415	465.00	12.00	130.00	Open	-760.31	1064.02	1064.73	0.71	0.00
979	P-416	465.00	12.00	130.00	Open	-8.43	1052.04	1052.04	0.00	0.00
981	P-417	470.00	12.00	130.00	Open	26.30	1053.01	1053.00	0.00	0.00
984	P-418	473.00	12.00	130.00	Open	175.38	1053.85	1053.80	0.05	0.00
986	P-419	479.00	12.00	130.00	Open	105.26	1052.13	1052.11	0.02	0.00
989	P-420	479.00	12.00	130.00	Open	-6.54	1051.96	1051.96	0.00	0.00
990	P-421	488.00	12.00	130.00	Open	26.27	1061.13	1061.13	0.00	0.00
992	P-422	480.00	12.00	130.00	Open	41.37	1322.97	1322.97	0.00	0.00
994	P-423	482.00	12.00	130.00	Open	115.35	1052.34	1052.31	0.02	0.00
996	P-424	484.00	12.00	130.00	Open	96.97	1052.24	1052.22	0.02	0.00
997	P-425	485.00	12.00	130.00	Open	101.11	1052.98	1052.96	0.02	0.00
999	P-426	506.00	12.00	130.00	Open	-1.64	1322.92	1322.92	0.00	0.00
1001	P-427	488.00	12.00	130.00	Open	373.42	1063.04	1062.85	0.20	0.00
1002	P-428	490.00	12.00	130.00	Open	25.51	1061.13	1061.13	0.00	0.00
1003	P-429	501.00	12.00	130.00	Open	11.77	1064.93	1064.93	0.00	0.00
1006	P-430	492.00	12.00	130.00	Open	-0.56	1052.04	1052.04	0.00	0.00
1009	P-431	495.00	12.00	130.00	Open	18.28	1061.12	1061.12	0.00	0.00
1011	P-432	499.00	12.00	130.00	Open	0.23	1064.63	1064.63	0.00	0.00
1012	P-433	499.00	12.00	130.00	Open	20.75	1061.12	1061.12	0.00	0.00
1014	P-434	501.00	12.00	130.00	Open	57.48	981.50	981.49	0.01	0.00
1015	P-435	496.00	12.00	130.00	Open	187.77	1053.92	1053.86	0.06	0.00
1017	P-436	496.00	12.00	130.00	Open	88.34	1051.83	1051.82	0.01	0.00
1019	P-437	497.00	12.00	130.00	Open	105.11	1052.11	1052.09	0.02	0.00
1020	P-438	498.00	12.00	130.00	Open	341.19	1061.33	1061.15	0.17	0.00
1021	P-439	500.00	12.00	130.00	Open	26.56	1322.92	1322.92	0.00	0.00
1023	P-440	528.00	12.00	130.00	Open	10.68	1051.96	1051.96	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1025	P-441	504.00	12.00	130.00	Open	-7.85	1053.01	1053.01	0.00	0.00
1027	P-442	528.00	12.00	130.00	Open	-269.97	1062.69	1062.81	0.12	0.00
1029	P-443	506.00	12.00	130.00	Open	188.13	1053.98	1053.92	0.06	0.00
1030	P-444	506.00	12.00	130.00	Open	106.32	1052.20	1052.18	0.02	0.00
1032	P-445	511.00	12.00	130.00	Open	-58.07	1053.00	1053.01	0.01	0.00
1034	P-446	512.00	12.00	130.00	Open	372.71	1062.64	1062.43	0.21	0.00
1036	P-447	537.00	12.00	130.00	Open	10.26	1064.92	1064.92	0.00	0.00
1038	P-448	602.00	12.00	130.00	Open	-0.08	981.48	981.48	0.00	0.00
1040	P-449	520.00	12.00	130.00	Open	94.27	1052.96	1052.95	0.02	0.00
1042	P-450	579.00	12.00	130.00	Open	-22.06	1218.62	1218.62	0.00	0.00
1045	P-451	853.00	12.00	130.00	Open	-105.49	1052.13	1052.17	0.03	0.00
1047	P-452	520.00	12.00	130.00	Open	-0.23	1061.76	1061.76	0.00	0.00
1049	P-453	529.00	12.00	130.00	Open	-356.17	1063.62	1063.82	0.20	0.00
1050	P-454	525.00	12.00	130.00	Open	14.44	1064.93	1064.93	0.00	0.00
1052	P-455	660.00	12.00	130.00	Open	199.48	1054.07	1053.99	0.08	0.00
1053	P-456	531.00	12.00	130.00	Open	108.66	1052.30	1052.28	0.02	0.00
1054	P-457	692.00	12.00	130.00	Open	7.34	1322.91	1322.91	0.00	0.00
1056	P-458	549.00	12.00	130.00	Open	-15.00	1052.03	1052.03	0.00	0.00
1059	P-459	591.00	12.00	130.00	Open	371.56	1062.43	1062.19	0.24	0.00
1060	P-460	540.00	12.00	130.00	Open	22.22	1053.00	1053.00	0.00	0.00
1062	P-461	543.00	12.00	130.00	Open	161.12	1051.94	1051.89	0.05	0.00
1064	P-462	543.00	12.00	130.00	Open	11.15	1051.96	1051.96	0.00	0.00
1065	P-463	549.00	12.00	130.00	Open	13.69	1064.93	1064.93	0.00	0.00
1067	P-464	561.00	12.00	130.00	Open	-35.61	1057.34	1057.34	0.00	0.00
1068	P-465	567.00	12.00	130.00	Open	770.93	1060.22	1059.33	0.89	0.00
1070	P-466	565.00	12.00	130.00	Open	1.06	1057.32	1057.32	0.00	0.00
1072	P-467	568.00	12.00	130.00	Open	0.23	1064.61	1064.61	0.00	0.00
1073	P-468	571.00	12.00	130.00	Open	17.49	1218.03	1218.03	0.00	0.00
1074	P-469	582.00	12.00	130.00	Open	18.83	1061.12	1061.12	0.00	0.00
1075	P-470	587.00	12.00	130.00	Open	449.45	1060.94	1060.60	0.34	0.00
1077	P-471	615.00	12.00	130.00	Open	-73.02	1051.92	1051.93	0.01	0.00
1078	P-472	599.00	12.00	130.00	Open	122.80	1218.68	1218.65	0.03	0.00
1081	P-473	602.00	12.00	130.00	Open	21.10	1061.13	1061.12	0.00	0.00
1083	P-474	605.00	12.00	130.00	Open	76.50	1051.97	1051.96	0.01	0.00
1084	P-475	597.00	12.00	130.00	Open	105.77	1052.18	1052.15	0.02	0.00
1086	P-476	597.00	12.00	130.00	Open	12.82	1322.92	1322.91	0.00	0.00
1088	P-477	623.00	12.00	130.00	Open	22.21	1061.13	1061.13	0.00	0.00
1090	P-478	602.00	12.00	130.00	Open	105.41	1052.15	1052.13	0.02	0.00
1091	P-479	604.00	12.00	130.00	Open	-269.01	1062.56	1062.69	0.13	0.00
1092	P-480	670.00	12.00	130.00	Open	7.00	1051.96	1051.96	0.00	0.00
1094	P-481	603.00	12.00	130.00	Open	86.51	1218.32	1218.31	0.02	0.00
1097	P-482	613.00	12.00	130.00	Open	4.77	1322.91	1322.91	0.00	0.00
1099	P-483	614.00	12.00	130.00	Open	-215.05	1057.78	1057.87	0.09	0.00
1101	P-484	639.00	12.00	130.00	Open	-18.47	1218.60	1218.60	0.00	0.00
1103	P-485	637.00	12.00	130.00	Open	-189.32	1052.03	1052.11	0.07	0.00
1104	P-486	635.00	12.00	130.00	Open	66.89	1060.49	1060.48	0.01	0.00
1106	P-487	641.00	12.00	130.00	Open	-0.38	1061.76	1061.76	0.00	0.00
1107	P-488	638.00	12.00	130.00	Open	38.13	1322.95	1322.94	0.00	0.00
1109	P-489	659.00	12.00	130.00	Open	-106.65	1052.17	1052.19	0.03	0.00
1110	P-490	690.00	12.00	130.00	Open	17.72	1059.77	1059.77	0.00	0.00
1112	P-491	681.00	12.00	130.00	Open	13.77	1322.92	1322.92	0.00	0.00
1113	P-492	697.00	12.00	130.00	Open	-36.15	1051.95	1051.95	0.00	0.00
1114	P-493	682.00	12.00	130.00	Open	81.97	1052.06	1052.04	0.02	0.00
1115	P-494	675.00	12.00	130.00	Open	1.64	1051.96	1051.96	0.00	0.00
1117	P-495	675.00	12.00	130.00	Open	-5.43	1052.04	1052.04	0.00	0.00
1118	P-496	703.00	12.00	130.00	Open	37.07	981.49	981.49	0.00	0.00
1120	P-497	682.00	12.00	130.00	Open	13.68	1052.03	1052.03	0.00	0.00
1122	P-498	687.00	12.00	130.00	Open	93.31	1052.09	1052.07	0.02	0.00
1123	P-499	693.00	12.00	130.00	Open	-261.18	1062.40	1062.55	0.15	0.00
1124	P-500	723.00	12.00	130.00	Open	21.66	1061.13	1061.13	0.00	0.00
1125	P-501	690.00	12.00	130.00	Open	-216.81	1057.87	1057.97	0.10	0.00
1126	P-502	698.00	12.00	130.00	Open	-59.18	1053.01	1053.02	0.01	0.00
1127	P-503	727.00	12.00	130.00	Open	-85.45	1051.93	1051.95	0.02	0.00
1128	P-504	707.00	12.00	130.00	Open	360.92	1054.64	1054.37	0.27	0.00
1130	P-505	716.00	12.00	130.00	Open	280.67	1217.47	1217.30	0.17	0.00
1133	P-506	732.00	12.00	130.00	Open	-114.47	1054.64	1054.67	0.03	0.00
1134	P-507	727.00	12.00	130.00	Open	198.18	1056.92	1056.83	0.09	0.00
1135	P-508	722.00	12.00	130.00	Open	257.71	1215.66	1215.51	0.15	0.00
1137	P-509	723.00	12.00	130.00	Open	26.94	1322.92	1322.92	0.00	0.00
1138	P-510	723.00	12.00	130.00	Open	-771.85	1063.48	1064.61	1.13	0.00
1140	P-511	729.00	12.00	130.00	Open	-4.23	1052.56	1052.56	0.00	0.00
1142	P-512	738.00	12.00	130.00	Open	20.11	1053.00	1053.00	0.00	0.00
1145	P-513	737.00	12.00	130.00	Open	-135.21	1056.71	1056.76	0.05	0.00
1147	P-514	824.00	12.00	130.00	Open	72.49	1218.05	1218.03	0.02	0.00
1149	P-515	736.00	12.00	130.00	Open	174.42	1053.80	1053.73	0.07	0.00
1150	P-516	738.00	12.00	130.00	Open	78.26	1051.99	1051.97	0.02	0.00
1151	P-517	768.00	12.00	130.00	Open	86.44	1052.06	1052.04	0.02	0.00
1153	P-518	778.00	12.00	130.00	Open	-86.08	1052.02	1052.04	0.02	0.00
1154	P-519	780.00	12.00	130.00	Open	6.68	1322.91	1322.91	0.00	0.00
1155	P-520	766.00	12.00	130.00	Open	-73.37	1053.02	1053.03	0.02	0.00
1157	P-521	770.00	12.00	130.00	Open	5.14	1322.91	1322.91	0.00	0.00
1158	P-522	832.00	12.00	130.00	Open	5.16	1052.71	1052.71	0.00	0.00
1160	P-523	911.00	12.00	130.00	Open	113.38	1052.31	1052.27	0.04	0.00
1161	P-524	771.00	12.00	130.00	Open	8.23	1322.91	1322.91	0.00	0.00
1162	P-525	787.00	12.00	130.00	Open	-42.01	1052.99	1052.99	0.01	0.00
1164	P-526	768.00	12.00	130.00	Open	6.03	1052.99	1052.99	0.00	0.00
1166	P-527	771.00	12.00	130.00	Open	94.12	1052.95	1052.92	0.02	0.00
1168	P-528	777.00	12.00	130.00	Open	58.61	1056.83	1056.82	0.01	0.00
1170	P-529	786.00	12.00	130.00	Open	52.84	1217.86	1217.85	0.01	0.00
1172	P-530	797.00	12.00	130.00	Open	-43.74	1059.78	1059.79	0.01	0.00
1174	P-531	782.00	12.00	130.00	Open	-771.69	1062.25	1063.48	1.23	0.00
1175	P-532	786.00	12.00	130.00	Open	35.11	981.49	981.48	0.00	0.00
1176	P-533	802.00	12.00	130.00	Open	-15.15	1053.01	1053.01	0.00	0.00
1178	P-534	805.00	12.00	130.00	Open	41.60	1322.98	1322.97	0.01	0.00
1179	P-535	807.00	12.00	130.00	Open	63.80	1218.02	1218.01	0.01	0.00
1181	P-536	940.00	12.00	130.00	Open	-19.27	1218.60	1218.61	0.00	0.00
1183	P-537	866.00	12.00	130.00	Open	10.82	1064.93	1064.92	0.00	0.00
1184	P-538	807.00	12.00	130.00	Open	-0.08	1075.00	1075.00	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1187	P-539	825.00	12.00	130.00	Open	8.10	1052.99	1052.99	0.00	0.00
1189	P-540	814.00	12.00	130.00	Open	37.45	1322.93	1322.93	0.00	0.00
1191	P-541	859.00	12.00	130.00	Open	-5.14	1064.94	1064.94	0.00	0.00
1193	P-542	831.00	12.00	130.00	Open	120.55	1218.42	1218.38	0.04	0.00
1195	P-543	822.00	12.00	130.00	Open	37.68	1322.94	1322.93	0.00	0.00
1197	P-544	827.00	12.00	130.00	Open	39.10	1322.96	1322.95	0.01	0.00
1200	P-545	830.00	12.00	130.00	Open	53.85	1217.87	1217.86	0.01	0.00
1202	P-546	831.00	12.00	130.00	Open	10.47	1052.99	1052.99	0.00	0.00
1205	P-547	838.00	12.00	130.00	Open	86.87	1056.78	1056.76	0.02	0.00
1207	P-548	839.00	12.00	130.00	Open	-33.59	1057.33	1057.34	0.00	0.00
1209	P-549	842.00	12.00	130.00	Open	360.36	1054.37	1054.04	0.32	0.00
1210	P-550	890.00	12.00	130.00	Open	27.56	1053.02	1053.02	0.00	0.00
1213	P-551	1047.00	12.00	130.00	Open	83.29	1218.20	1218.17	0.03	0.00
1215	P-552	850.00	12.00	130.00	Open	261.48	1216.88	1216.70	0.18	0.00
1217	P-553	852.00	12.00	130.00	Open	16.51	1064.93	1064.93	0.00	0.00
1218	P-554	857.00	12.00	130.00	Open	38.88	1322.95	1322.95	0.01	0.00
1219	P-555	859.00	12.00	130.00	Open	54.25	1217.88	1217.87	0.01	0.00
1220	P-556	930.00	12.00	130.00	Open	-4.91	1052.79	1052.79	0.00	0.00
1223	P-557	873.00	12.00	130.00	Open	55.50	1056.78	1056.77	0.01	0.00
1226	P-558	887.00	12.00	130.00	Open	42.34	1322.98	1322.98	0.01	0.00
1227	P-559	883.00	12.00	130.00	Open	54.43	1056.74	1056.73	0.01	0.00
1230	P-560	910.00	12.00	130.00	Open	260.60	1216.49	1216.30	0.19	0.00
1233	P-561	890.00	12.00	130.00	Open	-0.23	1075.00	1075.00	0.00	0.00
1235	P-562	890.00	12.00	130.00	Open	74.09	1218.11	1218.10	0.02	0.00
1236	P-563	891.00	12.00	130.00	Open	-133.10	1056.64	1056.69	0.05	0.00
1237	P-564	897.00	12.00	130.00	Open	37.91	1322.94	1322.94	0.01	0.00
1238	P-565	901.00	12.00	130.00	Open	121.43	1218.52	1218.47	0.05	0.00
1241	P-566	925.00	12.00	130.00	Open	10.12	1052.99	1052.99	0.00	0.00
1243	P-567	904.00	12.00	130.00	Open	40.92	1322.96	1322.96	0.01	0.00
1244	P-568	939.00	12.00	130.00	Open	61.26	1217.95	1217.93	0.01	0.00
1246	P-569	943.00	12.00	130.00	Open	-136.97	1056.76	1056.82	0.06	0.00
1247	P-570	1025.00	12.00	130.00	Open	66.53	1060.48	1060.46	0.02	0.00
1248	P-571	945.00	12.00	130.00	Open	-68.14	1051.89	1051.90	0.02	0.00
1249	P-572	916.00	12.00	130.00	Open	281.56	1217.94	1217.72	0.22	0.00
1251	P-573	927.00	12.00	130.00	Open	278.15	1217.30	1217.08	0.22	0.00
1252	P-574	1000.00	12.00	130.00	Open	-18.87	1218.60	1218.60	0.00	0.00
1253	P-575	943.00	12.00	130.00	Open	116.77	1052.08	1052.04	0.04	0.00
1255	P-576	934.00	12.00	130.00	Open	20.66	1053.00	1053.00	0.00	0.00
1256	P-577	962.00	12.00	130.00	Open	60.46	1217.93	1217.92	0.01	0.00
1258	P-578	949.00	12.00	130.00	Open	27.06	1053.01	1053.01	0.00	0.00
1260	P-579	944.00	12.00	130.00	Open	14.65	1322.92	1322.92	0.00	0.00
1262	P-580	948.00	12.00	130.00	Open	-352.50	1063.24	1063.59	0.35	0.00
1263	P-581	962.00	12.00	130.00	Open	-3.76	1053.01	1053.01	0.00	0.00
1265	P-582	1071.00	12.00	130.00	Open	72.89	1218.07	1218.05	0.02	0.00
1267	P-583	970.00	12.00	130.00	Open	258.54	1215.86	1215.66	0.20	0.00
1269	P-584	984.00	12.00	130.00	Open	771.08	1061.76	1060.22	1.54	0.00
1270	P-585	988.00	12.00	130.00	Open	-21.26	1218.61	1218.61	0.00	0.00
1273	P-586	979.00	12.00	130.00	Open	259.54	1216.06	1215.86	0.20	0.00
1275	P-587	1096.00	12.00	130.00	Open	-13.49	1064.94	1064.94	0.00	0.00
1278	P-588	972.00	12.00	130.00	Open	-42.77	1052.99	1053.00	0.01	0.00
1279	P-589	1010.00	12.00	130.00	Open	214.19	1057.63	1057.48	0.15	0.00
1282	P-590	998.00	12.00	130.00	Open	-23.36	1056.82	1056.83	0.00	0.00
1284	P-591	994.00	12.00	130.00	Open	86.91	1218.35	1218.32	0.03	0.00
1285	P-592	1033.00	12.00	130.00	Open	400.20	1063.54	1063.06	0.48	0.00
1288	P-593	983.00	12.00	130.00	Open	59.66	1217.91	1217.89	0.01	0.00
1291	P-594	988.00	12.00	130.00	Open	28.27	1053.03	1053.02	0.00	0.00
1294	P-595	1094.00	12.00	130.00	Open	-0.88	1051.96	1051.96	0.00	0.00
1295	P-596	1000.00	12.00	130.00	Open	-232.94	1058.47	1058.64	0.17	0.00
1298	P-597	1000.00	12.00	130.00	Open	261.00	1216.70	1216.49	0.21	0.00
1299	P-598	1002.00	12.00	130.00	Open	85.71	1056.76	1056.73	0.03	0.00
1300	P-599	996.00	12.00	130.00	Open	12.73	1064.93	1064.93	0.00	0.00
1301	P-600	1101.00	12.00	130.00	Open	15.09	981.48	981.48	0.00	0.00
1302	P-601	1007.00	12.00	130.00	Open	-231.95	1052.52	1052.70	0.17	0.00
1304	P-602	1178.00	12.00	130.00	Open	-0.95	1322.92	1322.92	0.00	0.00
1306	P-603	1115.00	12.00	130.00	Open	-20.86	1218.61	1218.61	0.00	0.00
1308	P-604	1001.00	12.00	130.00	Open	29.20	1322.93	1322.92	0.00	0.00
1309	P-605	1018.00	12.00	130.00	Open	-13.13	1064.94	1064.94	0.00	0.00
1310	P-606	1013.00	12.00	130.00	Open	214.74	1057.78	1057.63	0.15	0.00
1311	P-607	1037.00	12.00	130.00	Open	48.78	1217.83	1217.82	0.01	0.00
1314	P-608	1017.00	12.00	130.00	Open	164.06	1052.03	1051.94	0.09	0.00
1315	P-609	1034.00	12.00	130.00	Open	-3.75	1052.79	1052.79	0.00	0.00
1316	P-610	1028.00	12.00	130.00	Open	0.71	1057.32	1057.32	0.00	0.00
1318	P-611	1026.00	12.00	130.00	Open	60.06	1217.92	1217.91	0.01	0.00
1319	P-612	1033.00	12.00	130.00	Open	400.76	1064.02	1063.54	0.48	0.00
1320	P-613	1027.00	12.00	130.00	Open	-6.07	1052.79	1052.79	0.00	0.00
1321	P-614	1029.00	12.00	130.00	Open	6.99	1052.99	1052.99	0.00	0.00
1322	P-615	1050.00	12.00	130.00	Open	121.03	1218.47	1218.42	0.05	0.00
1323	P-616	1030.00	12.00	130.00	Open	281.07	1217.72	1217.47	0.25	0.00
1324	P-617	1044.00	12.00	130.00	Open	0.48	1051.96	1051.96	0.00	0.00
1326	P-618	1208.00	12.00	130.00	Open	-13.84	1064.94	1064.94	0.00	0.00
1327	P-619	1056.00	12.00	130.00	Open	-0.48	1322.91	1322.91	0.00	0.00
1328	P-620	1102.00	12.00	130.00	Open	82.15	1218.14	1218.12	0.03	0.00
1330	P-621	1052.00	12.00	130.00	Open	9.97	1052.99	1052.99	0.00	0.00
1332	P-622	1062.00	12.00	130.00	Open	213.23	1057.48	1057.33	0.15	0.00
1334	P-623	1076.00	12.00	130.00	Open	-20.47	1218.61	1218.61	0.00	0.00
1335	P-624	1091.00	12.00	130.00	Open	59.26	1217.89	1217.88	0.01	0.00
1336	P-625	1088.00	12.00	130.00	Open	15.03	1322.92	1322.92	0.00	0.00
1337	P-626	1102.00	12.00	130.00	Open	28.12	1053.02	1053.02	0.00	0.00
1338	P-627	1314.00	12.00	130.00	Open	63.06	1218.01	1217.99	0.02	0.00
1339	P-628	1117.00	12.00	130.00	Open	123.28	1218.74	1218.68	0.06	0.00
1341	P-629	1095.00	12.00	130.00	Open	11.85	1322.91	1322.91	0.00	0.00
1342	P-630	1166.00	12.00	130.00	Open	-24.72	1056.83	1056.83	0.00	0.00
1343	P-631	1152.00	12.00	130.00	Open	-41.98	1059.77	1059.78	0.01	0.00
1344	P-632	1133.00	12.00	130.00	Open	113.25	1051.88	1051.83	0.05	0.00
1345	P-633	1141.00	12.00	130.00	Open	259.94	1216.30	1216.06	0.24	0.00
1346	P-634	1145.00	12.00	130.00	Open	-227.23	1052.34	1052.52	0.19	0.00
1348	P-635	1189.00	12.00	130.00	Open	0.56	1057.32	1057.32	0.00	0.00
1350	P-636	1176.00	12.00	130.00	Open	84.57	1218.24	1218.21	0.03	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1351	P-637	1390.00	12.00	130.00	Open	212.28	1057.33	1057.13	0.20	0.00
1352	P-638	1201.00	12.00	130.00	Open	82.55	1218.17	1218.14	0.03	0.00
1353	P-639	1480.00	12.00	130.00	Open	207.32	1057.13	1056.92	0.20	0.00
1354	P-640	1228.00	12.00	130.00	Open	54.59	1056.76	1056.74	0.01	0.00
1356	P-641	1190.00	12.00	130.00	Open	0.00	1051.96	1051.96	0.00	0.00
1357	P-642	1232.00	12.00	130.00	Open	122.40	1218.65	1218.58	0.06	0.00
1359	P-643	1290.00	12.00	130.00	Open	-21.66	1218.61	1218.62	0.00	0.00
1360	P-644	1242.00	12.00	130.00	Open	122.00	1218.58	1218.52	0.06	0.00
1361	P-645	1252.00	12.00	130.00	Open	-227.79	1058.04	1058.24	0.20	0.00
1362	P-646	1268.00	12.00	130.00	Open	-32.43	1057.33	1057.33	0.01	0.00
1363	P-647	1300.00	12.00	130.00	Open	-221.70	1052.14	1052.34	0.20	0.00
1364	P-648	1515.00	12.00	130.00	Open	54.74	1056.77	1056.76	0.02	0.00
1365	P-649	1306.00	12.00	130.00	Open	49.26	1217.85	1217.83	0.01	0.00
1366	P-650	1313.00	12.00	130.00	Open	-231.79	1058.25	1058.47	0.22	0.00
1367	P-651	1475.00	12.00	130.00	Open	-14.64	1052.03	1052.03	0.00	0.00
1368	P-652	1442.00	12.00	130.00	Open	374.89	1060.47	1059.87	0.59	0.00
1369	P-653	1446.00	12.00	130.00	Open	73.29	1218.10	1218.07	0.03	0.00
1370	P-654	2121.00	12.00	130.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1372	P-655	1683.00	12.00	130.00	Open	-58.31	1051.96	1051.98	0.02	0.00
1373	P-656	1602.00	12.00	130.00	Open	449.80	1061.87	1060.94	0.92	0.00
1375	P-657	1814.00	12.00	130.00	Open	-17.60	1051.96	1051.96	0.00	0.00
1376	P-658	1762.00	12.00	130.00	Open	9.26	1052.99	1052.99	0.00	0.00
1378	P-659	1671.00	12.00	130.00	Open	9.81	1052.99	1052.99	0.00	0.00
1379	P-660	2004.00	12.00	130.00	Open	86.11	1218.31	1218.25	0.05	0.00
1380	P-661	2029.00	12.00	130.00	Open	28.43	1053.03	1053.03	0.01	0.00
1381	P-662	1862.00	12.00	130.00	Open	300.80	1057.34	1056.83	0.51	0.00
1382	P-663	1952.00	12.00	130.00	Open	-2.11	1052.04	1052.04	0.00	0.00
1383	P-664	1900.00	12.00	130.00	Open	27.41	1053.02	1053.01	0.01	0.00
1384	P-665	2216.00	12.00	130.00	Open	25.47	1059.77	1059.77	0.01	0.00
1385	P-666	2065.00	12.00	130.00	Open	450.76	1063.06	1061.87	1.20	0.00
1386	P-667	2830.00	12.00	130.00	Open	61.65	1217.99	1217.95	0.04	0.00
1387	P-668	2731.00	12.00	130.00	Open	19.75	1053.00	1053.00	0.00	0.00
1389	P-669	2751.00	12.00	130.00	Open	-259.78	1052.79	1053.37	0.57	0.00
1391	P-670	3072.00	12.00	130.00	Open	-262.34	1053.37	1054.02	0.65	0.00
1392	P-671	2919.00	12.00	130.00	Open	56.65	1056.82	1056.78	0.04	0.00
1393	P-672	3784.00	12.00	130.00	Open	373.88	1064.74	1063.19	1.55	0.00
1394	P-673	4336.00	12.00	130.00	Open	11.23	1053.00	1052.99	0.00	0.00
1395	P-674	3.00	16.00	130.00	Open	-45.04	1064.94	1064.94	0.00	0.00
1398	P-675	6.00	16.00	130.00	Open	-68.26	1064.95	1064.95	0.00	0.00
1400	P-676	11.00	16.00	130.00	Open	0.28	1053.68	1053.68	0.00	0.00
1402	P-677	16.00	16.00	130.00	Open	-235.77	1052.43	1052.43	0.00	0.00
1405	P-678	17.00	16.00	130.00	Open	-233.30	1058.64	1058.64	0.00	0.00
1407	P-679	22.00	16.00	130.00	Open	358.80	1053.01	1053.01	0.00	0.00
1411	P-681	22.00	16.00	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
1413	P-682	24.00	16.00	130.00	Open	35.03	1052.45	1052.45	0.00	0.00
1416	P-683	34.00	16.00	130.00	Open	319.76	1052.68	1052.68	0.00	0.00
1418	P-684	46.00	16.00	130.00	Open	228.17	1052.40	1052.40	0.00	0.00
1421	P-685	60.00	16.00	130.00	Open	340.50	1052.80	1052.79	0.01	0.00
1424	P-686	72.00	16.00	130.00	Open	351.03	1053.02	1053.01	0.01	0.00
1426	P-687	78.00	16.00	130.00	Open	0.08	1052.45	1052.45	0.00	0.00
1429	P-688	81.00	16.00	130.00	Open	-0.28	1058.64	1058.64	0.00	0.00
1431	P-689	90.00	16.00	130.00	Open	320.47	1052.72	1052.71	0.01	0.00
1434	P-690	120.00	16.00	130.00	Open	229.48	1052.41	1052.41	0.00	0.00
1437	P-691	124.00	16.00	130.00	Open	0.23	1052.45	1052.45	0.00	0.00
1439	P-692	134.00	16.00	130.00	Open	350.86	1052.85	1052.84	0.01	0.00
1442	P-693	147.00	16.00	130.00	Open	-230.04	1052.41	1052.42	0.01	0.00
1444	P-694	153.00	16.00	130.00	Open	405.86	1053.24	1053.23	0.02	0.00
1447	P-695	164.00	16.00	130.00	Open	-235.21	1052.42	1052.43	0.01	0.00
1448	P-696	170.00	16.00	130.00	Open	339.62	1057.88	1057.87	0.01	0.00
1451	P-697	200.00	16.00	130.00	Open	498.03	1053.68	1053.65	0.03	0.00
1453	P-698	228.00	16.00	130.00	Open	228.93	1052.41	1052.40	0.01	0.00
1454	P-699	258.00	16.00	130.00	Open	-234.98	1058.89	1058.90	0.01	0.00
1456	P-700	259.00	16.00	130.00	Open	273.59	1052.50	1052.48	0.01	0.00
1459	P-701	277.00	16.00	130.00	Open	328.71	1052.74	1052.72	0.02	0.00
1461	P-702	278.00	16.00	130.00	Open	227.81	1052.40	1052.39	0.01	0.00
1463	P-703	317.00	16.00	130.00	Open	274.14	1052.51	1052.50	0.02	0.00
1465	P-704	325.00	16.00	130.00	Open	-38.40	1052.56	1052.56	0.00	0.00
1467	P-705	329.00	16.00	130.00	Open	485.74	1053.30	1053.24	0.05	0.00
1469	P-706	341.00	16.00	130.00	Open	351.57	1052.88	1052.85	0.03	0.00
1471	P-707	355.00	16.00	130.00	Open	28.27	1052.45	1052.45	0.00	0.00
1473	P-708	366.00	16.00	130.00	Open	226.35	1052.35	1052.34	0.01	0.00
1475	P-709	378.00	16.00	130.00	Open	276.52	1052.54	1052.51	0.02	0.00
1477	P-710	394.00	16.00	130.00	Open	227.66	1052.39	1052.37	0.02	0.00
1479	P-711	417.00	16.00	130.00	Open	354.24	1053.01	1052.97	0.04	0.00
1481	P-712	417.00	16.00	130.00	Open	497.12	1053.56	1053.48	0.07	0.00
1484	P-713	442.00	16.00	130.00	Open	276.67	1052.56	1052.54	0.03	0.00
1485	P-714	449.00	16.00	130.00	Open	319.91	1052.71	1052.68	0.03	0.00
1486	P-715	452.00	16.00	130.00	Open	227.11	1052.37	1052.35	0.02	0.00
1487	P-716	453.00	16.00	130.00	Open	405.36	1053.16	1053.11	0.05	0.00
1490	P-717	462.00	16.00	130.00	Open	273.03	1052.48	1052.45	0.03	0.00
1491	P-718	475.00	16.00	130.00	Open	353.29	1052.97	1052.93	0.04	0.00
1493	P-719	475.00	16.00	130.00	Open	351.93	1052.93	1052.88	0.04	0.00
1494	P-720	478.00	16.00	130.00	Open	351.98	1053.06	1053.02	0.04	0.00
1496	P-721	502.00	16.00	130.00	Open	350.71	1052.84	1052.80	0.04	0.00
1497	P-722	516.00	16.00	130.00	Open	486.49	1053.38	1053.30	0.08	0.00
1499	P-723	536.00	16.00	130.00	Open	405.71	1053.23	1053.16	0.06	0.00
1500	P-724	549.00	16.00	130.00	Open	354.96	1053.11	1053.06	0.05	0.00
1501	P-725	553.00	16.00	130.00	Open	497.67	1053.65	1053.56	0.09	0.00
1502	P-726	559.00	16.00	130.00	Open	34.47	1052.45	1052.45	0.00	0.00
1503	P-727	573.00	16.00	130.00	Open	340.14	1052.79	1052.74	0.05	0.00
1504	P-728	599.00	16.00	130.00	Open	-234.67	1058.82	1058.85	0.03	0.00
1507	P-729	616.00	16.00	130.00	Open	486.85	1053.48	1053.38	0.10	0.00
1508	P-730	624.00	16.00	130.00	Open	533.62	1058.75	1058.63	0.12	0.00
1511	P-731	645.00	16.00	130.00	Open	532.51	1058.43	1058.31	0.13	0.00
1514	P-732	649.00	16.00	130.00	Open	-237.93	1052.43	1052.45	0.03	0.00
1515	P-733	785.00	16.00	130.00	Open	-4.31	1052.56	1052.56	0.00	0.00
1516	P-734	804.00	16.00	130.00	Open	534.18	1058.90	1058.75	0.16	0.00
1517	P-735	844.00	16.00	130.00	Open	338.71	1057.71	1057.64	0.07	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1519	P-736	916.00	16.00	130.00	Open	532.00	1058.06	1057.88	0.18	0.00
1521	P-737	965.00	16.00	130.00	Open	-234.36	1058.74	1058.78	0.04	0.00
1524	P-738	992.00	16.00	130.00	Open	533.07	1058.63	1058.43	0.19	0.00
1525	P-739	1029.00	16.00	130.00	Open	-233.81	1058.69	1058.74	0.04	0.00
1527	P-740	1047.00	16.00	130.00	Open	-234.52	1058.78	1058.82	0.04	0.00
1528	P-741	1064.00	16.00	130.00	Open	-234.82	1058.85	1058.89	0.05	0.00
1529	P-742	1204.00	16.00	130.00	Open	-233.45	1058.64	1058.69	0.05	0.00
1530	P-743	1275.00	16.00	130.00	Open	532.16	1058.31	1058.06	0.25	0.00
1531	P-744	1748.00	16.00	130.00	Open	110.28	1064.97	1064.95	0.02	0.00
1533	P-745	1856.00	16.00	130.00	Open	339.27	1057.87	1057.71	0.16	0.00
1534	P-746	1952.00	16.00	130.00	Open	-45.20	1064.94	1064.94	0.00	0.00
1536	P-747	2626.00	16.00	130.00	Open	-67.90	1064.94	1064.95	0.01	0.00
1537	P-748	7.00	18.00	130.00	Open	400.26	1218.74	1218.74	0.00	0.00
1539	P-749	104.00	18.00	130.00	Open	525.51	1219.01	1219.00	0.01	0.00
1541	P-750	140.00	18.00	130.00	Open	377.12	1218.62	1218.61	0.01	0.00
1543	P-751	318.00	18.00	130.00	Open	375.13	1218.38	1218.36	0.02	0.00
1546	P-752	358.00	18.00	130.00	Open	524.72	1219.00	1218.96	0.04	0.00
1548	P-753	397.00	18.00	130.00	Open	333.93	1218.15	1218.13	0.02	0.00
1551	P-754	682.00	18.00	130.00	Open	343.22	1218.36	1218.32	0.03	0.00
1553	P-755	819.00	18.00	130.00	Open	329.15	1218.07	1218.04	0.04	0.00
1555	P-756	872.00	18.00	130.00	Open	399.78	1218.74	1218.68	0.06	0.00
1557	P-757	1014.00	18.00	130.00	Open	376.72	1218.61	1218.55	0.06	0.00
1559	P-758	946.00	18.00	130.00	Open	376.32	1218.55	1218.50	0.05	0.00
1561	P-759	1039.00	18.00	130.00	Open	523.75	1218.85	1218.74	0.11	0.00
1563	P-760	978.00	18.00	130.00	Open	399.38	1218.68	1218.62	0.06	0.00
1564	P-761	1000.00	18.00	130.00	Open	375.53	1218.43	1218.38	0.06	0.00
1566	P-762	1064.00	18.00	130.00	Open	524.32	1218.96	1218.85	0.11	0.00
1567	P-763	1100.00	18.00	130.00	Open	375.93	1218.50	1218.43	0.06	0.00
1568	P-764	1234.00	18.00	130.00	Open	333.53	1218.13	1218.07	0.06	0.00
1569	P-765	1813.00	18.00	130.00	Open	342.42	1218.23	1218.15	0.09	0.00
1571	P-766	1869.00	18.00	130.00	Open	342.82	1218.32	1218.23	0.09	0.00
1572	P-767	2.00	2.00	130.00	Open	0.48	1054.32	1054.32	0.00	0.00
1575	P-768	2.00	2.00	130.00	Open	-0.40	1216.98	1216.98	0.00	0.00
1578	P-769	6.00	2.00	130.00	Open	-0.88	1059.86	1059.86	0.00	0.00
1581	P-770	6.00	2.00	130.00	Open	0.28	1059.99	1059.99	0.00	0.00
1584	P-771	9.00	2.00	130.00	Open	0.28	1059.99	1059.99	0.00	0.00
1586	P-772	10.00	2.00	130.00	Open	3.80	961.57	961.56	0.01	0.00
1589	P-773	12.00	2.00	130.00	Open	-0.28	1064.93	1064.93	0.00	0.00
1592	P-774	13.00	2.00	130.00	Open	0.88	1051.98	1051.98	0.00	0.00
1598	P-776	15.00	2.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
1601	P-777	15.00	2.00	130.00	Open	0.63	1059.99	1059.99	0.00	0.00
1603	P-778	15.00	2.00	130.00	Open	0.68	1051.97	1051.97	0.00	0.00
1606	P-779	16.00	2.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
1609	P-780	16.00	2.00	130.00	Open	1.44	1064.93	1064.93	0.00	0.00
1612	P-781	16.00	2.00	130.00	Open	0.68	1051.98	1051.98	0.00	0.00
1615	P-782	17.00	2.00	130.00	Open	0.68	1051.36	1051.36	0.00	0.00
1618	P-783	18.00	2.00	130.00	Open	0.08	1051.39	1051.39	0.00	0.00
1621	P-784	26.00	2.00	130.00	Open	0.46	1217.75	1217.75	0.00	0.00
1624	P-785	19.00	2.00	130.00	Open	0.68	1051.95	1051.95	0.00	0.00
1627	P-786	19.00	2.00	130.00	Open	0.48	1052.02	1052.02	0.00	0.00
1629	P-787	31.00	2.00	130.00	Open	4.37	1217.75	1217.73	0.02	0.00
1632	P-788	25.00	2.00	130.00	Open	1.68	1052.43	1052.42	0.00	0.00
1634	P-789	26.00	2.00	130.00	Open	0.46	991.17	991.17	0.00	0.00
1637	P-790	28.00	2.00	130.00	Open	0.40	973.48	973.48	0.00	0.00
1640	P-791	28.00	2.00	130.00	Open	0.20	961.56	961.56	0.00	0.00
1642	P-792	30.00	2.00	130.00	Open	1.58	963.61	963.60	0.00	0.00
1645	P-793	33.00	2.00	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
1647	P-794	34.00	2.00	130.00	Open	4.37	961.59	961.57	0.02	0.00
1648	P-795	36.00	2.00	130.00	Open	0.48	1201.27	1201.27	0.00	0.00
1651	P-796	40.00	2.00	130.00	Open	-1.19	1059.99	1059.99	0.00	0.00
1653	P-797	43.00	2.00	130.00	Open	-0.48	1064.88	1064.88	0.00	0.00
1656	P-798	43.00	2.00	130.00	Open	-0.88	1051.96	1051.96	0.00	0.00
1659	P-799	48.00	2.00	130.00	Open	1.23	1054.33	1054.32	0.00	0.00
1660	P-800	51.00	2.00	130.00	Open	0.20	993.43	993.43	0.00	0.00
1663	P-801	54.00	2.00	130.00	Open	0.28	1053.16	1053.16	0.00	0.00
1666	P-802	53.00	2.00	130.00	Open	3.51	1022.93	1022.91	0.02	0.00
1669	P-803	232.00	2.00	130.00	Open	0.55	1322.91	1322.91	0.00	0.00
1672	P-804	56.00	2.00	130.00	Open	0.20	993.42	993.42	0.00	0.00
1675	P-805	74.00	2.00	130.00	Open	0.20	973.48	973.48	0.00	0.00
1678	P-806	58.00	2.00	130.00	Open	-1.64	1051.83	1051.84	0.01	0.00
1681	P-807	58.00	2.00	130.00	Open	-0.88	1051.96	1051.96	0.00	0.00
1684	P-808	368.00	2.00	130.00	Open	-1.28	1061.10	1061.13	0.03	0.00
1687	P-809	64.00	2.00	130.00	Open	0.88	1051.96	1051.96	0.00	0.00
1690	P-810	64.00	2.00	130.00	Open	1.88	1051.97	1051.96	0.01	0.00
1693	P-811	67.00	2.00	130.00	Open	-0.08	1054.24	1054.24	0.00	0.00
1696	P-812	67.00	2.00	130.00	Open	0.48	1051.72	1051.72	0.00	0.00
1699	P-813	68.00	2.00	130.00	Open	0.68	1051.98	1051.97	0.00	0.00
1702	P-814	70.00	2.00	130.00	Open	-1.44	1051.84	1051.84	0.01	0.00
1705	P-815	72.00	2.00	130.00	Open	-0.88	1051.95	1051.95	0.00	0.00
1708	P-816	74.00	2.00	130.00	Open	0.20	973.48	973.48	0.00	0.00
1710	P-817	75.00	2.00	130.00	Open	0.46	973.48	973.48	0.00	0.00
1713	P-818	81.00	2.00	130.00	Open	0.68	1053.03	1053.02	0.00	0.00
1716	P-819	287.00	2.00	130.00	Open	-1.28	1052.96	1052.98	0.02	0.00
1719	P-820	120.00	2.00	130.00	Open	-0.48	1051.96	1051.96	0.00	0.00
1721	P-821	98.00	2.00	130.00	Open	0.48	1051.97	1051.97	0.00	0.00
1724	P-822	103.00	2.00	130.00	Open	0.48	1063.87	1063.87	0.00	0.00
1727	P-823	88.00	2.00	130.00	Open	0.89	967.13	967.13	0.00	0.00
1730	P-824	100.00	2.00	130.00	Open	0.48	1055.31	1055.31	0.00	0.00
1733	P-825	96.00	2.00	130.00	Open	-0.46	991.15	991.15	0.00	0.00
1736	P-826	103.00	2.00	130.00	Open	0.68	1059.74	1059.74	0.00	0.00
1739	P-827	112.00	2.00	130.00	Open	0.68	1055.31	1055.31	0.00	0.00
1742	P-828	102.00	2.00	130.00	Open	0.48	1064.91	1064.91	0.00	0.00
1745	P-829	101.00	2.00	130.00	Open	0.48	1054.31	1054.31	0.00	0.00
1748	P-830	143.00	2.00	130.00	Open	-0.68	1053.41	1053.42	0.00	0.00
1751	P-831	133.00	2.00	130.00	Open	0.88	1057.53	1057.52	0.00	0.00
1754	P-832	134.00	2.00	130.00	Open	0.48	1052.99	1052.99	0.00	0.00
1757	P-833	128.00	2.00	130.00	Open	0.68	1056.79	1056.78	0.00	0.00
1760	P-834	149.00	2.00	130.00	Open	0.88	1059.99	1059.99	0.01	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
1763	P-835	114.00	2.00	130.00	Open	0.01	1052.50	1052.50	0.00	0.00
1766	P-836	164.00	2.00	130.00	Open	0.48	1059.99	1059.99	0.00	0.00
1768	P-837	195.00	2.00	130.00	Open	0.55	988.98	988.98	0.00	0.00
1771	P-838	124.00	2.00	130.00	Open	-0.87	1052.50	1052.51	0.00	0.00
1773	P-839	165.00	2.00	130.00	Open	0.88	1059.75	1059.75	0.01	0.00
1776	P-840	125.00	2.00	130.00	Open	1.84	1051.74	1051.72	0.02	0.00
1779	P-841	126.00	2.00	130.00	Open	1.68	1051.21	1051.19	0.01	0.00
1781	P-842	126.00	2.00	130.00	Open	0.48	1054.31	1054.31	0.00	0.00
1783	P-843	171.00	2.00	130.00	Open	0.88	1057.53	1057.52	0.01	0.00
1786	P-844	159.00	2.00	130.00	Open	0.88	1057.59	1057.58	0.01	0.00
1789	P-845	155.00	2.00	130.00	Open	0.88	1060.74	1060.74	0.01	0.00
1792	P-846	159.00	2.00	130.00	Open	0.88	1059.74	1059.74	0.01	0.00
1795	P-847	174.00	2.00	130.00	Open	-0.48	1056.39	1056.39	0.00	0.00
1798	P-848	132.00	2.00	130.00	Open	0.28	1052.50	1052.49	0.00	0.00
1800	P-849	149.00	2.00	130.00	Open	0.28	981.47	981.47	0.00	0.00
1803	P-850	134.00	2.00	130.00	Open	0.48	1064.86	1064.86	0.00	0.00
1806	P-851	187.00	2.00	130.00	Open	0.48	1060.15	1060.15	0.00	0.00
1809	P-852	134.00	2.00	130.00	Open	0.89	1052.51	1052.50	0.00	0.00
1811	P-853	192.00	2.00	130.00	Open	0.48	1060.26	1060.26	0.00	0.00
1814	P-854	213.00	2.00	130.00	Open	0.68	1052.99	1052.98	0.00	0.00
1817	P-855	213.00	2.00	130.00	Open	-0.88	1056.38	1056.39	0.01	0.00
1820	P-856	175.00	2.00	130.00	Open	0.68	1053.00	1053.00	0.00	0.00
1823	P-857	139.00	2.00	130.00	Open	0.68	1053.97	1053.97	0.00	0.00
1826	P-858	225.00	2.00	130.00	Open	0.88	1064.93	1064.93	0.01	0.00
1828	P-859	149.00	2.00	130.00	Open	0.88	1051.72	1051.72	0.01	0.00
1830	P-860	212.00	2.00	130.00	Open	0.48	1057.13	1057.12	0.00	0.00
1833	P-861	193.00	2.00	130.00	Open	0.48	1064.81	1064.81	0.00	0.00
1836	P-862	220.00	2.00	130.00	Open	0.48	1064.91	1064.91	0.00	0.00
1839	P-863	290.00	2.00	130.00	Open	1.08	1064.81	1064.80	0.01	0.00
1842	P-864	209.00	2.00	130.00	Open	0.88	1064.93	1064.93	0.01	0.00
1845	P-865	208.00	2.00	130.00	Open	0.68	1057.53	1057.52	0.00	0.00
1848	P-866	172.00	2.00	130.00	Open	-0.48	1051.96	1051.96	0.00	0.00
1851	P-867	207.00	2.00	130.00	Open	2.49	1056.79	1056.74	0.05	0.00
1854	P-868	244.00	2.00	130.00	Open	-0.88	1059.98	1059.99	0.01	0.00
1857	P-869	181.00	2.00	130.00	Open	0.68	1054.25	1054.24	0.00	0.00
1860	P-870	301.00	2.00	130.00	Open	1.28	1064.82	1064.79	0.02	0.00
1863	P-871	199.00	2.00	130.00	Open	0.68	1052.50	1052.50	0.00	0.00
1866	P-872	197.00	2.00	130.00	Open	1.28	1064.93	1064.92	0.01	0.00
1869	P-873	274.00	2.00	130.00	Open	0.48	1064.82	1064.82	0.00	0.00
1872	P-874	219.00	2.00	130.00	Open	0.46	1022.87	1022.86	0.00	0.00
1875	P-875	206.00	2.00	130.00	Open	1.48	1060.74	1060.72	0.02	0.00
1878	P-876	251.00	2.00	130.00	Open	0.48	1054.25	1054.25	0.00	0.00
1880	P-877	230.00	2.00	130.00	Open	-1.28	1051.83	1051.84	0.02	0.00
1883	P-878	215.00	2.00	130.00	Open	-0.88	1064.92	1064.93	0.01	0.00
1886	P-879	264.00	2.00	130.00	Open	0.48	1052.99	1052.99	0.00	0.00
1888	P-880	238.00	2.00	130.00	Open	0.88	1052.51	1052.50	0.01	0.00
1891	P-881	254.00	2.00	130.00	Open	0.63	988.98	988.98	0.00	0.00
1894	P-882	222.00	2.00	130.00	Open	2.09	1051.21	1051.17	0.04	0.00
1897	P-883	221.00	2.00	130.00	Open	-2.09	1051.25	1051.28	0.04	0.00
1900	P-884	244.00	2.00	130.00	Open	-0.88	1051.83	1051.83	0.01	0.00
1902	P-885	275.00	2.00	130.00	Open	0.48	1056.91	1056.91	0.00	0.00
1905	P-886	223.00	2.00	130.00	Open	-0.68	1054.32	1054.32	0.00	0.00
1907	P-887	227.00	2.00	130.00	Open	0.55	973.48	973.48	0.00	0.00
1910	P-888	234.00	2.00	130.00	Open	1.68	1064.98	1064.95	0.03	0.00
1913	P-889	233.00	2.00	130.00	Open	0.68	1054.25	1054.24	0.00	0.00
1916	P-890	270.00	2.00	130.00	Open	0.48	1054.24	1054.24	0.00	0.00
1919	P-891	251.00	2.00	130.00	Open	0.68	1054.24	1054.23	0.01	0.00
1922	P-892	261.00	2.00	130.00	Open	-0.88	1051.83	1051.84	0.01	0.00
1924	P-893	253.00	2.00	130.00	Open	0.88	1061.95	1061.94	0.01	0.00
1927	P-894	269.00	2.00	130.00	Open	0.29	993.35	993.34	0.00	0.00
1930	P-895	258.00	2.00	130.00	Open	-0.37	967.07	967.07	0.00	0.00
1933	P-896	262.00	2.00	130.00	Open	-0.48	1064.90	1064.90	0.00	0.00
1936	P-897	309.00	2.00	130.00	Open	-0.63	993.31	993.32	0.01	0.00
1939	P-898	268.00	2.00	130.00	Open	0.88	1053.84	1053.83	0.01	0.00
1942	P-899	290.00	2.00	130.00	Open	0.88	1064.97	1064.96	0.01	0.00
1945	P-900	281.00	2.00	130.00	Open	0.88	1053.84	1053.83	0.01	0.00
1948	P-901	298.00	2.00	130.00	Open	0.40	1322.91	1322.91	0.00	0.00
1951	P-902	292.00	2.00	130.00	Open	0.88	1064.94	1064.93	0.01	0.00
1954	P-903	289.00	2.00	130.00	Open	0.37	993.34	993.34	0.00	0.00
1957	P-904	310.00	2.00	130.00	Open	0.48	1064.94	1064.94	0.00	0.00
1960	P-905	308.00	2.00	130.00	Open	-1.08	1054.06	1054.07	0.02	0.00
1962	P-906	308.00	2.00	130.00	Open	0.88	1054.24	1054.23	0.01	0.00
1965	P-907	317.00	2.00	130.00	Open	1.08	1064.94	1064.92	0.02	0.00
1968	P-908	321.00	2.00	130.00	Open	0.72	963.60	963.60	0.01	0.00
1971	P-909	315.00	2.00	130.00	Open	-0.68	1061.94	1061.95	0.01	0.00
1974	P-910	316.00	2.00	130.00	Open	0.46	967.07	967.07	0.00	0.00
1977	P-911	324.00	2.00	130.00	Open	0.68	1064.96	1064.95	0.01	0.00
1980	P-912	337.00	2.00	130.00	Open	0.96	1064.93	1064.92	0.01	0.00
1982	P-913	351.00	2.00	130.00	Open	-0.88	1064.92	1064.93	0.01	0.00
1985	P-914	355.00	2.00	130.00	Open	0.55	973.48	973.47	0.01	0.00
1988	P-915	374.00	2.00	130.00	Open	0.68	1064.93	1064.92	0.01	0.00
1991	P-916	390.00	2.00	130.00	Open	0.46	993.32	993.32	0.00	0.00
1994	P-917	359.00	2.00	130.00	Open	0.88	1201.27	1201.26	0.01	0.00
1997	P-918	423.00	2.00	130.00	Open	-0.55	993.36	993.37	0.01	0.00
2000	P-919	373.00	2.00	130.00	Open	0.63	1022.87	1022.86	0.01	0.00
2003	P-920	374.00	2.00	130.00	Open	0.72	993.38	993.37	0.01	0.00
2006	P-921	374.00	2.00	130.00	Open	-1.88	1053.94	1053.99	0.05	0.00
2008	P-922	397.00	2.00	130.00	Open	1.28	1059.74	1059.72	0.03	0.00
2011	P-923	407.00	2.00	130.00	Open	-0.89	993.34	993.35	0.01	0.00
2014	P-924	504.00	2.00	130.00	Open	0.46	962.42	962.41	0.01	0.00
2016	P-925	714.00	2.00	130.00	Open	0.37	1022.90	1022.89	0.01	0.00
2019	P-926	572.00	2.00	130.00	Open	0.72	1022.91	1022.90	0.01	0.00
2021	P-927	568.00	2.00	130.00	Open	0.20	1216.98	1216.98	0.00	0.00
2023	P-928	755.00	2.00	130.00	Open	-0.37	961.56	961.57	0.01	0.00
2025	P-929	892.00	2.00	130.00	Open	0.55	991.16	991.15	0.01	0.00
2028	P-930	903.00	2.00	130.00	Open	0.08	873.78	873.78	0.00	0.00
2031	P-931	974.00	2.00	130.00	Open	-0.68	1052.14	1052.16	0.02	0.00
2034	P-932	1630.00	2.00	130.00	Open	-1.06	1022.80	1022.88	0.08	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2037	P-933	6.00	20.00	130.00	Open	3.56	1218.03	1218.03	0.00	0.00
2040	P-934	7.00	20.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
2042	P-935	16.00	20.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
2045	P-936	24.00	20.00	130.00	Open	3.16	1218.03	1218.03	0.00	0.00
2047	P-937	62.00	20.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
2049	P-938	203.00	20.00	130.00	Open	3.96	1218.03	1218.03	0.00	0.00
2051	P-939	291.00	20.00	130.00	Open	40.90	1218.03	1218.03	0.00	0.00
2054	P-940	326.00	20.00	130.00	Open	-201.13	1064.99	1064.99	0.00	0.00
2056	P-941	446.00	20.00	130.00	Open	43.00	1218.04	1218.03	0.00	0.00
2057	P-942	526.00	20.00	130.00	Open	4.62	1218.03	1218.03	0.00	0.00
2058	P-943	604.00	20.00	130.00	Open	36.75	1218.03	1218.03	0.00	0.00
2060	P-944	679.00	20.00	130.00	Open	-1.31	1064.96	1064.96	0.00	0.00
2063	P-945	682.00	20.00	130.00	Open	-168.27	1064.97	1064.98	0.01	0.00
2067	P-947	681.00	20.00	130.00	Open	37.81	1218.03	1218.03	0.00	0.00
2070	P-948	693.00	20.00	130.00	Open	37.23	1218.03	1218.03	0.00	0.00
2071	P-949	698.00	20.00	130.00	Open	39.43	1218.03	1218.03	0.00	0.00
2073	P-950	772.00	20.00	130.00	Open	-0.08	1064.96	1064.96	0.00	0.00
2075	P-951	1107.00	20.00	130.00	Open	36.26	1218.03	1218.03	0.00	0.00
2076	P-952	1245.00	20.00	130.00	Open	-170.98	1064.98	1064.99	0.01	0.00
2077	P-953	1364.00	20.00	130.00	Open	38.86	1218.03	1218.03	0.00	0.00
2079	P-954	1503.00	20.00	130.00	Open	38.29	1218.03	1218.03	0.00	0.00
2080	P-955	2209.00	20.00	130.00	Open	-52.64	1064.97	1064.97	0.00	0.00
2082	P-956	4305.00	20.00	130.00	Open	-57.90	1064.97	1064.97	0.00	0.00
2083	P-957	9624.00	20.00	130.00	Open	-52.37	1064.96	1064.97	0.01	0.00
2084	P-958	1.00	3.00	130.00	Open	-0.63	1218.02	1218.02	0.00	0.00
2087	P-959	6.00	3.00	130.00	Open	-0.60	1216.98	1216.98	0.00	0.00
2088	P-960	8.00	3.00	130.00	Open	1.09	1218.02	1218.02	0.00	0.00
2090	P-961	10.00	3.00	130.00	Open	-1.81	993.43	993.43	0.00	0.00
2093	P-962	13.00	3.00	130.00	Open	0.48	1053.75	1053.75	0.00	0.00
2096	P-963	25.00	3.00	130.00	Open	0.20	991.24	991.24	0.00	0.00
2099	P-964	43.00	3.00	130.00	Open	-0.20	993.39	993.39	0.00	0.00
2102	P-965	49.00	3.00	130.00	Open	0.88	1051.98	1051.98	0.00	0.00
2105	P-966	75.00	3.00	130.00	Open	1.40	993.35	993.35	0.00	0.00
2107	P-967	59.00	3.00	130.00	Open	1.48	1051.97	1051.97	0.00	0.00
2110	P-968	82.00	3.00	130.00	Open	-1.08	1057.75	1057.75	0.00	0.00
2113	P-969	80.00	3.00	130.00	Open	-0.48	1052.53	1052.53	0.00	0.00
2116	P-970	90.00	3.00	130.00	Open	0.92	993.32	993.32	0.00	0.00
2118	P-971	212.00	3.00	130.00	Open	0.68	1059.76	1059.76	0.00	0.00
2121	P-972	151.00	3.00	130.00	Open	-0.88	1051.98	1051.98	0.00	0.00
2124	P-973	98.00	3.00	130.00	Open	0.48	1055.07	1055.07	0.00	0.00
2127	P-974	101.00	3.00	130.00	Open	5.82	991.19	991.18	0.02	0.00
2130	P-975	198.00	3.00	130.00	Open	0.88	1056.05	1056.05	0.00	0.00
2133	P-976	102.00	3.00	130.00	Open	0.72	1218.03	1218.03	0.00	0.00
2136	P-977	106.00	3.00	130.00	Open	-0.88	1051.03	1051.03	0.00	0.00
2139	P-978	291.00	3.00	130.00	Open	-0.68	1057.97	1057.97	0.00	0.00
2142	P-979	114.00	3.00	130.00	Open	0.68	1055.07	1055.07	0.00	0.00
2144	P-980	117.00	3.00	130.00	Open	0.92	967.07	967.07	0.00	0.00
2147	P-981	151.00	3.00	130.00	Open	0.88	1059.76	1059.76	0.00	0.00
2150	P-982	174.00	3.00	130.00	Open	0.76	981.47	981.47	0.00	0.00
2152	P-983	175.00	3.00	130.00	Open	1.58	993.39	993.39	0.00	0.00
2154	P-984	211.00	3.00	130.00	Open	-0.68	1057.97	1057.97	0.00	0.00
2157	P-985	135.00	3.00	130.00	Open	1.56	1053.03	1053.03	0.00	0.00
2159	P-986	135.00	3.00	130.00	Open	1.28	1051.23	1051.23	0.00	0.00
2162	P-987	178.00	3.00	130.00	Open	1.08	1056.20	1056.20	0.00	0.00
2165	P-988	250.00	3.00	130.00	Open	0.68	1064.96	1064.96	0.00	0.00
2168	P-989	223.00	3.00	130.00	Open	1.28	1061.11	1061.11	0.00	0.00
2171	P-990	149.00	3.00	130.00	Open	-0.68	1059.86	1059.86	0.00	0.00
2174	P-991	150.00	3.00	130.00	Open	-2.24	1059.86	1059.86	0.00	0.00
2176	P-992	165.00	3.00	130.00	Open	0.68	1052.54	1052.54	0.00	0.00
2179	P-993	274.00	3.00	130.00	Open	0.88	1052.54	1052.53	0.00	0.00
2182	P-994	177.00	3.00	130.00	Open	-0.68	1052.14	1052.14	0.00	0.00
2185	P-995	176.00	3.00	130.00	Open	2.24	1019.32	1019.31	0.00	0.00
2188	P-996	179.00	3.00	130.00	Open	1.16	1054.24	1054.24	0.00	0.00
2190	P-997	248.00	3.00	130.00	Open	-1.88	1056.20	1056.20	0.00	0.00
2193	P-998	200.00	3.00	130.00	Open	0.68	1059.76	1059.76	0.00	0.00
2196	P-999	184.00	3.00	130.00	Open	0.96	1059.99	1059.99	0.00	0.00
2198	P-1000	227.00	3.00	130.00	Open	-0.68	1052.54	1052.54	0.00	0.00
2201	P-1001	214.00	3.00	130.00	Open	-1.09	993.37	993.37	0.00	0.00
2203	P-1002	197.00	3.00	130.00	Open	1.16	1059.75	1059.75	0.00	0.00
2205	P-1003	199.00	3.00	130.00	Open	0.88	1064.97	1064.97	0.00	0.00
2208	P-1004	201.00	3.00	130.00	Open	1.23	1055.07	1055.07	0.00	0.00
2209	P-1005	210.00	3.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
2212	P-1006	220.00	3.00	130.00	Open	0.72	993.42	993.42	0.00	0.00
2215	P-1007	218.00	3.00	130.00	Open	0.46	967.17	967.17	0.00	0.00
2218	P-1008	221.00	3.00	130.00	Open	-0.72	993.41	993.42	0.00	0.00
2221	P-1009	237.00	3.00	130.00	Open	1.47	1059.99	1059.99	0.00	0.00
2223	P-1010	236.00	3.00	130.00	Open	-0.68	825.46	825.46	0.00	0.00
2226	P-1011	241.00	3.00	130.00	Open	0.66	967.07	967.07	0.00	0.00
2228	P-1012	245.00	3.00	130.00	Open	-0.88	1059.86	1059.86	0.00	0.00
2230	P-1013	256.00	3.00	130.00	Open	1.56	1064.97	1064.97	0.00	0.00
2232	P-1014	254.00	3.00	130.00	Open	-0.88	1052.64	1052.64	0.00	0.00
2235	P-1015	249.00	3.00	130.00	Open	0.66	993.42	993.42	0.00	0.00
2237	P-1016	254.00	3.00	130.00	Open	0.92	993.43	993.43	0.00	0.00
2239	P-1017	258.00	3.00	130.00	Open	0.48	1052.13	1052.13	0.00	0.00
2241	P-1018	291.00	3.00	130.00	Open	1.08	1064.98	1064.98	0.00	0.00
2244	P-1019	313.00	3.00	130.00	Open	0.81	991.24	991.24	0.00	0.00
2246	P-1020	336.00	3.00	130.00	Open	0.88	1063.20	1063.20	0.00	0.00
2249	P-1021	300.00	3.00	130.00	Open	0.63	993.43	993.43	0.00	0.00
2251	P-1022	432.00	3.00	130.00	Open	1.28	1051.85	1051.85	0.00	0.00
2254	P-1023	327.00	3.00	130.00	Open	1.72	991.25	991.24	0.01	0.00
2256	P-1024	313.00	3.00	130.00	Open	0.88	1064.98	1064.98	0.00	0.00
2259	P-1025	331.00	3.00	130.00	Open	0.96	1055.31	1055.31	0.00	0.00
2261	P-1026	332.00	3.00	130.00	Open	0.63	967.41	967.41	0.00	0.00
2264	P-1027	464.00	3.00	130.00	Open	0.88	1052.53	1052.53	0.00	0.00
2267	P-1028	343.00	3.00	130.00	Open	-1.35	993.32	993.32	0.00	0.00
2268	P-1029	372.00	3.00	130.00	Open	-0.72	967.07	967.07	0.00	0.00
2271	P-1030	413.00	3.00	130.00	Open	0.72	967.41	967.41	0.00	0.00
2274	P-1031	392.00	3.00	130.00	Open	0.88	1060.49	1060.49	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2277	P-1032	350.00	3.00	130.00	Open	-0.72	993.42	993.43	0.00	0.00
2279	P-1033	394.00	3.00	130.00	Open	0.55	991.26	991.26	0.00	0.00
2282	P-1034	358.00	3.00	130.00	Open	-4.60	825.46	825.50	0.04	0.00
2284	P-1035	375.00	3.00	130.00	Open	1.76	1059.99	1059.99	0.01	0.00
2286	P-1036	387.00	3.00	130.00	Open	0.96	1055.31	1055.31	0.00	0.00
2288	P-1037	378.00	3.00	130.00	Open	-0.89	967.17	967.17	0.00	0.00
2291	P-1038	510.00	3.00	130.00	Open	0.68	1064.97	1064.97	0.00	0.00
2294	P-1039	403.00	3.00	130.00	Open	-0.88	825.36	825.36	0.00	0.00
2297	P-1040	409.00	3.00	130.00	Open	0.55	991.26	991.26	0.00	0.00
2300	P-1041	468.00	3.00	130.00	Open	0.72	991.18	991.18	0.00	0.00
2302	P-1042	465.00	3.00	130.00	Open	0.63	993.48	993.48	0.00	0.00
2305	P-1043	477.00	3.00	130.00	Open	0.55	1019.32	1019.32	0.00	0.00
2307	P-1044	429.00	3.00	130.00	Open	1.08	1062.54	1062.54	0.00	0.00
2310	P-1045	447.00	3.00	130.00	Open	1.48	1052.64	1052.64	0.01	0.00
2312	P-1046	444.00	3.00	130.00	Open	1.08	1053.70	1053.70	0.00	0.00
2315	P-1047	506.00	3.00	130.00	Open	0.88	825.50	825.50	0.00	0.00
2317	P-1048	456.00	3.00	130.00	Open	1.18	993.39	993.38	0.00	0.00
2318	P-1049	540.00	3.00	130.00	Open	0.20	967.41	967.41	0.00	0.00
2320	P-1050	500.00	3.00	130.00	Open	-0.37	991.16	991.16	0.00	0.00
2323	P-1051	509.00	3.00	130.00	Open	0.55	991.22	991.22	0.00	0.00
2326	P-1052	496.00	3.00	130.00	Open	0.74	993.35	993.34	0.00	0.00
2327	P-1053	587.00	3.00	130.00	Open	-0.48	1051.96	1051.96	0.00	0.00
2330	P-1054	514.00	3.00	130.00	Open	-1.56	1059.86	1059.86	0.01	0.00
2332	P-1055	548.00	3.00	130.00	Open	-0.89	993.41	993.42	0.00	0.00
2335	P-1056	527.00	3.00	130.00	Open	-2.81	993.32	993.35	0.02	0.00
2337	P-1058	567.00	3.00	130.00	Open	-1.41	991.27	991.28	0.01	0.00
2340	P-1059	662.00	3.00	130.00	Open	0.81	1019.31	1019.31	0.00	0.00
2342	P-1060	597.00	3.00	130.00	Open	1.68	1053.70	1053.69	0.01	0.00
2345	P-1061	669.00	3.00	130.00	Open	3.27	1053.75	1053.71	0.04	0.00
2347	P-1062	809.00	3.00	130.00	Open	5.03	1053.85	1053.75	0.10	0.00
2349	P-1063	901.00	3.00	130.00	Open	-1.21	967.41	967.42	0.01	0.00
2351	P-1064	864.00	3.00	130.00	Open	0.72	1019.31	1019.31	0.00	0.00
2353	P-1065	956.00	3.00	130.00	Open	-1.48	825.35	825.36	0.01	0.00
2355	P-1066	1412.00	3.00	130.00	Open	1.56	1064.93	1064.91	0.02	0.00
2358	P-1067	1376.00	3.00	130.00	Open	-3.85	825.36	825.46	0.10	0.00
2359	P-1068	1333.00	3.00	130.00	Open	1.35	993.37	993.35	0.01	0.00
2361	P-1069	1399.00	3.00	130.00	Open	0.68	1054.63	1054.63	0.00	0.00
2364	P-1070	1.00	30.00	130.00	Open	0.08	1064.94	1064.94	0.00	0.00
2367	P-1071	73.00	30.00	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
2370	P-1072	131.00	30.00	130.00	Open	-25.37	1064.94	1064.94	0.00	0.00
2373	P-1073	173.00	30.00	130.00	Open	-37.01	1064.94	1064.94	0.00	0.00
2376	P-1074	232.00	30.00	130.00	Open	-44.89	1064.94	1064.94	0.00	0.00
2377	P-1075	398.00	30.00	130.00	Open	-35.04	1064.94	1064.94	0.00	0.00
2380	P-1076	507.00	30.00	130.00	Open	-27.14	1064.94	1064.94	0.00	0.00
2383	P-1077	685.00	30.00	130.00	Open	-36.35	1064.94	1064.94	0.00	0.00
2386	P-1078	628.00	30.00	130.00	Open	-25.72	1064.94	1064.94	0.00	0.00
2388	P-1079	737.00	30.00	130.00	Open	-26.48	1064.94	1064.94	0.00	0.00
2390	P-1080	759.00	30.00	130.00	Open	-30.98	1064.94	1064.94	0.00	0.00
2392	P-1081	653.00	30.00	130.00	Open	-36.66	1064.94	1064.94	0.00	0.00
2394	P-1082	688.00	30.00	130.00	Open	-34.89	1064.94	1064.94	0.00	0.00
2396	P-1083	681.00	30.00	130.00	Open	-29.16	1064.94	1064.94	0.00	0.00
2399	P-1084	711.00	30.00	130.00	Open	-29.01	1064.94	1064.94	0.00	0.00
2401	P-1085	698.00	30.00	130.00	Open	-28.65	1064.94	1064.94	0.00	0.00
2403	P-1086	740.00	30.00	130.00	Open	-26.79	1064.94	1064.94	0.00	0.00
2405	P-1087	712.00	30.00	130.00	Open	-26.63	1064.94	1064.94	0.00	0.00
2406	P-1088	746.00	30.00	130.00	Open	-32.29	1064.94	1064.94	0.00	0.00
2408	P-1090	968.00	30.00	130.00	Open	-36.00	1064.94	1064.94	0.00	0.00
2409	P-1091	1272.00	30.00	130.00	Open	-28.10	1064.94	1064.94	0.00	0.00
2410	P-1092	2516.00	30.00	130.00	Open	-29.92	1064.94	1064.94	0.00	0.00
2411	P-1093	3501.00	30.00	130.00	Open	-10.09	1064.94	1064.94	0.00	0.00
2412	P-1094	8158.00	36.00	130.00	Open	14.40	1064.94	1064.94	0.00	0.00
2413	P-1095	1.00	4.00	130.00	Open	-3.50	973.48	973.48	0.00	0.00
2416	P-1096	3.00	4.00	130.00	Open	-0.20	963.60	963.60	0.00	0.00
2418	P-1097	3.00	4.00	130.00	Open	0.29	960.64	960.64	0.00	0.00
2421	P-1098	6.00	4.00	130.00	Open	3.24	991.16	991.16	0.00	0.00
2423	P-1099	6.00	4.00	130.00	Open	-0.20	967.43	967.43	0.00	0.00
2426	P-1100	6.00	4.00	130.00	Closed	0.00	1022.96	1218.60	0.00	0.00
2429	P-1101	6.00	4.00	130.00	Open	4.90	991.25	991.25	0.00	0.00
2432	P-1102	6.00	4.00	130.00	Open	-0.20	988.98	988.98	0.00	0.00
2434	P-1103	7.00	4.00	130.00	Open	0.76	1051.98	1051.98	0.00	0.00
2436	P-1104	7.00	4.00	130.00	Open	0.28	1052.73	1052.73	0.00	0.00
2439	P-1105	9.00	4.00	130.00	Open	-0.37	973.48	973.48	0.00	0.00
2441	P-1106	9.00	4.00	130.00	Open	0.56	1051.97	1051.97	0.00	0.00
2442	P-1107	9.00	4.00	130.00	Open	9.64	1057.24	1057.24	0.00	0.00
2445	P-1108	9.00	4.00	130.00	Open	2.29	1057.25	1057.25	0.00	0.00
2448	P-1109	10.00	4.00	130.00	Open	1.50	960.69	960.69	0.00	0.00
2451	P-1110	11.00	4.00	130.00	Open	0.96	1051.96	1051.96	0.00	0.00
2452	P-1111	11.00	4.00	130.00	Open	1.16	1064.96	1064.96	0.00	0.00
2454	P-1112	13.00	4.00	130.00	Open	-0.80	973.48	973.48	0.00	0.00
2456	P-1113	13.00	4.00	130.00	Open	1.08	1053.01	1053.01	0.00	0.00
2459	P-1114	13.00	4.00	130.00	Open	0.88	1053.01	1053.01	0.00	0.00
2462	P-1115	14.00	4.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
2465	P-1116	15.00	4.00	130.00	Open	0.28	1057.24	1057.24	0.00	0.00
2467	P-1117	15.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2470	P-1118	16.00	4.00	130.00	Open	2.01	973.48	973.48	0.00	0.00
2471	P-1119	16.00	4.00	130.00	Open	-11.48	1217.77	1217.78	0.00	0.00
2474	P-1120	17.00	4.00	130.00	Open	1.26	973.48	973.48	0.00	0.00
2475	P-1121	17.00	4.00	130.00	Open	0.68	1051.98	1051.98	0.00	0.00
2477	P-1122	18.00	4.00	130.00	Open	0.08	1056.91	1056.91	0.00	0.00
2480	P-1123	20.00	4.00	130.00	Open	-1.08	1053.01	1053.01	0.00	0.00
2484	P-1125	30.00	4.00	130.00	Open	1.16	1054.63	1054.63	0.00	0.00
2486	P-1126	31.00	4.00	130.00	Open	-0.83	1052.56	1052.56	0.00	0.00
2489	P-1127	31.00	4.00	130.00	Open	3.88	1053.01	1053.01	0.00	0.00
2491	P-1128	33.00	4.00	130.00	Open	0.96	1201.27	1201.27	0.00	0.00
2492	P-1129	33.00	4.00	130.00	Open	1.56	1201.27	1201.27	0.00	0.00
2495	P-1130	38.00	4.00	130.00	Open	-2.36	973.48	973.48	0.00	0.00
2496	P-1131	47.00	4.00	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
2499	P-1132	39.00	4.00	130.00	Open	1.68	1053.01	1053.01	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2501	P-1133	40.00	4.00	130.00	Open	0.28	1064.94	1064.94	0.00	0.00
2504	P-1134	44.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2506	P-1135	47.00	4.00	130.00	Open	-4.19	973.48	973.48	0.00	0.00
2507	P-1136	48.00	4.00	130.00	Open	4.20	1218.60	1218.60	0.00	0.00
2509	P-1137	50.00	4.00	130.00	Open	0.76	1059.76	1059.76	0.00	0.00
2511	P-1138	53.00	4.00	130.00	Open	0.28	1052.41	1052.41	0.00	0.00
2513	P-1139	65.00	4.00	130.00	Open	2.72	1051.96	1051.96	0.00	0.00
2515	P-1140	63.00	4.00	130.00	Open	-0.88	1063.23	1063.23	0.00	0.00
2518	P-1141	64.00	4.00	130.00	Open	1.31	1054.31	1054.31	0.00	0.00
2521	P-1142	65.00	4.00	130.00	Open	4.09	1052.42	1052.42	0.00	0.00
2523	P-1143	65.00	4.00	130.00	Open	0.96	1056.78	1056.78	0.00	0.00
2526	P-1144	67.00	4.00	130.00	Open	0.48	1052.40	1052.40	0.00	0.00
2528	P-1145	69.00	4.00	130.00	Open	0.48	1051.99	1051.99	0.00	0.00
2531	P-1146	70.00	4.00	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
2533	P-1147	70.00	4.00	130.00	Open	-1.87	1022.88	1022.88	0.00	0.00
2536	P-1148	71.00	4.00	130.00	Open	1.51	1051.98	1051.98	0.00	0.00
2537	P-1149	71.00	4.00	130.00	Open	0.26	1322.91	1322.91	0.00	0.00
2539	P-1150	72.00	4.00	130.00	Open	-1.64	1052.56	1052.56	0.00	0.00
2542	P-1151	73.00	4.00	130.00	Open	1.84	1051.96	1051.96	0.00	0.00
2543	P-1152	74.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2546	P-1153	78.00	4.00	130.00	Open	2.23	960.64	960.64	0.00	0.00
2549	P-1154	91.00	4.00	130.00	Open	1.08	1057.28	1057.28	0.00	0.00
2552	P-1155	100.00	4.00	130.00	Open	0.48	1060.08	1060.08	0.00	0.00
2555	P-1156	93.00	4.00	130.00	Open	-0.20	973.48	973.48	0.00	0.00
2557	P-1157	105.00	4.00	130.00	Open	0.29	991.16	991.16	0.00	0.00
2559	P-1158	109.00	4.00	130.00	Open	-12.20	1022.94	1022.96	0.02	0.00
2561	P-1159	110.00	4.00	130.00	Open	-1.71	1051.96	1051.96	0.00	0.00
2563	P-1160	113.00	4.00	130.00	Open	0.76	1064.93	1064.93	0.00	0.00
2565	P-1161	120.00	4.00	130.00	Open	1.51	1201.27	1201.27	0.00	0.00
2566	P-1162	176.00	4.00	130.00	Open	-1.68	1051.80	1051.80	0.00	0.00
2569	P-1163	126.00	4.00	130.00	Open	1.03	981.47	981.47	0.00	0.00
2571	P-1164	186.00	4.00	130.00	Open	2.52	1051.98	1051.97	0.00	0.00
2573	P-1165	128.00	4.00	130.00	Open	-1.68	1051.89	1051.89	0.00	0.00
2576	P-1166	130.00	4.00	130.00	Open	1.08	1064.93	1064.93	0.00	0.00
2579	P-1167	180.00	4.00	130.00	Open	-0.68	1051.96	1051.96	0.00	0.00
2581	P-1168	133.00	4.00	130.00	Open	2.49	991.16	991.16	0.00	0.00
2582	P-1169	232.00	4.00	130.00	Open	1.28	1060.60	1060.60	0.00	0.00
2585	P-1170	155.00	4.00	130.00	Open	1.36	1059.74	1059.74	0.00	0.00
2587	P-1171	146.00	4.00	130.00	Open	1.08	1057.28	1057.28	0.00	0.00
2589	P-1172	227.00	4.00	130.00	Open	0.68	1061.88	1061.87	0.00	0.00
2592	P-1173	235.00	4.00	130.00	Open	0.88	1061.87	1061.87	0.00	0.00
2595	P-1174	285.00	4.00	130.00	Open	-0.88	1051.80	1051.80	0.00	0.00
2598	P-1175	145.00	4.00	130.00	Open	-7.76	1322.92	1322.93	0.01	0.00
2600	P-1176	146.00	4.00	130.00	Open	0.88	1057.64	1057.64	0.00	0.00
2603	P-1177	149.00	4.00	130.00	Open	1.03	1063.11	1063.11	0.00	0.00
2606	P-1178	157.00	4.00	130.00	Open	-1.16	1053.42	1053.42	0.00	0.00
2608	P-1179	159.00	4.00	130.00	Open	1.68	1051.89	1051.89	0.00	0.00
2610	P-1180	200.00	4.00	130.00	Open	-0.68	1053.99	1053.99	0.00	0.00
2613	P-1181	164.00	4.00	130.00	Open	0.88	1063.11	1063.11	0.00	0.00
2615	P-1182	157.00	4.00	130.00	Open	-0.48	1052.54	1052.54	0.00	0.00
2618	P-1183	165.00	4.00	130.00	Open	-3.44	967.07	967.08	0.00	0.00
2621	P-1184	265.00	4.00	130.00	Open	0.48	1064.81	1064.81	0.00	0.00
2624	P-1185	175.00	4.00	130.00	Open	1.19	981.47	981.47	0.00	0.00
2626	P-1186	173.00	4.00	130.00	Open	1.12	967.07	967.07	0.00	0.00
2627	P-1187	206.00	4.00	130.00	Open	1.16	1063.88	1063.87	0.00	0.00
2628	P-1188	179.00	4.00	130.00	Open	1.28	1053.81	1053.81	0.00	0.00
2631	P-1189	181.00	4.00	130.00	Open	-0.88	1051.74	1051.74	0.00	0.00
2634	P-1190	180.00	4.00	130.00	Open	0.48	1053.97	1053.97	0.00	0.00
2637	P-1191	180.00	4.00	130.00	Open	-0.76	1051.96	1051.96	0.00	0.00
2638	P-1192	184.00	4.00	130.00	Open	0.88	1062.91	1062.91	0.00	0.00
2640	P-1193	192.00	4.00	130.00	Open	0.88	1063.13	1063.13	0.00	0.00
2643	P-1194	187.00	4.00	130.00	Open	-0.88	1053.22	1053.22	0.00	0.00
2646	P-1195	225.00	4.00	130.00	Open	0.88	1064.82	1064.82	0.00	0.00
2649	P-1196	188.00	4.00	130.00	Open	-0.55	991.26	991.26	0.00	0.00
2651	P-1197	195.00	4.00	130.00	Open	0.88	981.47	981.47	0.00	0.00
2654	P-1198	204.00	4.00	130.00	Open	1.36	1060.26	1060.26	0.00	0.00
2656	P-1199	206.00	4.00	130.00	Open	-0.88	981.49	981.49	0.00	0.00
2658	P-1200	286.00	4.00	130.00	Open	1.44	967.13	967.13	0.00	0.00
2660	P-1201	210.00	4.00	130.00	Open	-0.88	981.47	981.47	0.00	0.00
2663	P-1202	236.00	4.00	130.00	Open	1.18	963.60	963.60	0.00	0.00
2664	P-1203	218.00	4.00	130.00	Open	-1.08	1051.96	1051.96	0.00	0.00
2666	P-1204	219.00	4.00	130.00	Open	1.36	1060.15	1060.15	0.00	0.00
2668	P-1205	223.00	4.00	130.00	Open	-4.97	973.52	973.53	0.01	0.00
2671	P-1206	231.00	4.00	130.00	Open	0.96	1059.74	1059.74	0.00	0.00
2673	P-1207	233.00	4.00	130.00	Open	1.08	981.47	981.47	0.00	0.00
2676	P-1208	235.00	4.00	130.00	Open	1.28	1053.92	1053.92	0.00	0.00
2679	P-1209	235.00	4.00	130.00	Open	-2.30	991.28	991.28	0.00	0.00
2681	P-1210	236.00	4.00	130.00	Open	2.07	993.37	993.37	0.00	0.00
2683	P-1211	238.00	4.00	130.00	Open	0.48	1052.56	1052.56	0.00	0.00
2685	P-1212	238.00	4.00	130.00	Open	1.08	1052.56	1052.56	0.00	0.00
2688	P-1213	242.00	4.00	130.00	Open	1.08	981.47	981.47	0.00	0.00
2691	P-1214	243.00	4.00	130.00	Open	-0.88	981.47	981.47	0.00	0.00
2693	P-1215	244.00	4.00	130.00	Open	-0.37	991.16	991.16	0.00	0.00
2696	P-1216	258.00	4.00	130.00	Open	-0.88	1051.83	1051.83	0.00	0.00
2699	P-1217	247.00	4.00	130.00	Open	0.68	1062.80	1062.80	0.00	0.00
2702	P-1218	255.00	4.00	130.00	Open	-0.72	967.35	967.35	0.00	0.00
2705	P-1219	248.00	4.00	130.00	Open	-1.76	1061.13	1061.13	0.00	0.00
2707	P-1220	252.00	4.00	130.00	Open	-1.28	981.47	981.47	0.00	0.00
2710	P-1221	250.00	4.00	130.00	Open	0.68	1062.85	1062.85	0.00	0.00
2713	P-1222	253.00	4.00	130.00	Open	0.56	1064.94	1064.94	0.00	0.00
2715	P-1223	283.00	4.00	130.00	Open	-1.77	967.07	967.07	0.00	0.00
2716	P-1224	254.00	4.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
2718	P-1225	323.00	4.00	130.00	Open	-1.48	1051.83	1051.83	0.00	0.00
2721	P-1226	267.00	4.00	130.00	Open	1.56	1064.81	1064.81	0.00	0.00
2723	P-1227	272.00	4.00	130.00	Open	0.88	1051.74	1051.74	0.00	0.00
2726	P-1228	273.00	4.00	130.00	Open	-1.36	1051.84	1051.85	0.00	0.00
2728	P-1229	316.00	4.00	130.00	Open	0.88	1053.48	1053.48	0.00	0.00
2731	P-1230	276.00	4.00	130.00	Open	1.88	1052.34	1052.34	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2734	P-1231	281.00	4.00	130.00	Open	1.56	1064.82	1064.82	0.00	0.00
2736	P-1232	284.00	4.00	130.00	Open	1.40	1052.54	1052.54	0.00	0.00
2739	P-1233	287.00	4.00	130.00	Open	-7.89	973.48	973.50	0.02	0.00
2741	P-1234	287.00	4.00	130.00	Open	-1.48	1052.72	1052.72	0.00	0.00
2744	P-1235	295.00	4.00	130.00	Open	1.08	1058.41	1058.40	0.00	0.00
2747	P-1236	323.00	4.00	130.00	Open	1.08	1053.48	1053.48	0.00	0.00
2750	P-1237	325.00	4.00	130.00	Open	1.16	1053.16	1053.16	0.00	0.00
2752	P-1238	302.00	4.00	130.00	Open	1.48	1064.93	1064.93	0.00	0.00
2755	P-1239	297.00	4.00	130.00	Open	3.25	967.42	967.41	0.00	0.00
2756	P-1240	300.00	4.00	130.00	Open	1.28	1064.93	1064.93	0.00	0.00
2759	P-1241	302.00	4.00	130.00	Open	4.54	993.44	993.43	0.01	0.00
2761	P-1242	307.00	4.00	130.00	Open	0.68	960.64	960.64	0.00	0.00
2763	P-1243	303.00	4.00	130.00	Open	-0.68	1052.52	1052.52	0.00	0.00
2766	P-1244	316.00	4.00	130.00	Open	2.64	1059.75	1059.74	0.00	0.00
2768	P-1245	326.00	4.00	130.00	Open	0.88	981.48	981.48	0.00	0.00
2770	P-1246	314.00	4.00	130.00	Open	1.36	1052.99	1052.99	0.00	0.00
2772	P-1247	317.00	4.00	130.00	Open	-0.88	1064.94	1064.94	0.00	0.00
2775	P-1248	315.00	4.00	130.00	Open	1.08	981.47	981.47	0.00	0.00
2778	P-1249	320.00	4.00	130.00	Open	-1.28	1051.92	1051.92	0.00	0.00
2781	P-1250	357.00	4.00	130.00	Open	1.08	1057.27	1057.27	0.00	0.00
2784	P-1251	595.00	4.00	130.00	Open	1.08	963.95	963.95	0.00	0.00
2787	P-1252	330.00	4.00	130.00	Open	-1.28	1052.55	1052.56	0.00	0.00
2789	P-1253	333.00	4.00	130.00	Open	-1.08	1052.66	1052.66	0.00	0.00
2792	P-1254	352.00	4.00	130.00	Open	1.56	1056.05	1056.05	0.00	0.00
2794	P-1255	342.00	4.00	130.00	Open	0.96	1064.93	1064.93	0.00	0.00
2796	P-1256	383.00	4.00	130.00	Open	3.07	973.51	973.50	0.00	0.00
2798	P-1257	353.00	4.00	130.00	Open	1.44	991.26	991.26	0.00	0.00
2800	P-1258	355.00	4.00	130.00	Open	-0.88	994.76	994.76	0.00	0.00
2803	P-1259	367.00	4.00	130.00	Open	1.48	1063.13	1063.13	0.00	0.00
2806	P-1260	359.00	4.00	130.00	Open	3.71	1022.94	1022.93	0.01	0.00
2807	P-1261	372.00	4.00	130.00	Open	1.36	1053.00	1053.00	0.00	0.00
2809	P-1262	369.00	4.00	130.00	Open	1.28	1051.79	1051.79	0.00	0.00
2812	P-1263	380.00	4.00	130.00	Open	1.56	1053.97	1053.97	0.00	0.00
2813	P-1264	509.00	4.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
2816	P-1265	378.00	4.00	130.00	Open	0.68	1062.79	1062.79	0.00	0.00
2819	P-1266	377.00	4.00	130.00	Open	-1.28	1052.12	1052.12	0.00	0.00
2822	P-1267	403.00	4.00	130.00	Open	-1.08	1052.66	1052.66	0.00	0.00
2825	P-1268	411.00	4.00	130.00	Open	5.18	967.43	967.42	0.01	0.00
2826	P-1269	387.00	4.00	130.00	Open	-1.64	991.26	991.26	0.00	0.00
2828	P-1270	441.00	4.00	130.00	Open	-0.48	981.47	981.47	0.00	0.00
2830	P-1271	388.00	4.00	130.00	Open	1.28	1056.78	1056.78	0.00	0.00
2833	P-1272	390.00	4.00	130.00	Open	1.48	1052.71	1052.71	0.00	0.00
2836	P-1273	393.00	4.00	130.00	Open	1.48	1051.80	1051.80	0.00	0.00
2839	P-1274	437.00	4.00	130.00	Open	-0.88	1052.49	1052.49	0.00	0.00
2842	P-1275	393.00	4.00	130.00	Open	0.68	960.64	960.64	0.00	0.00
2843	P-1276	3807.00	4.00	130.00	Open	-3.44	1322.86	1322.92	0.06	0.00
2845	P-1277	403.00	4.00	130.00	Open	0.86	967.07	967.07	0.00	0.00
2846	P-1278	445.00	4.00	130.00	Open	0.68	1063.05	1063.05	0.00	0.00
2849	P-1279	409.00	4.00	130.00	Open	0.68	1063.05	1063.05	0.00	0.00
2852	P-1280	444.00	4.00	130.00	Open	1.08	1052.86	1052.86	0.00	0.00
2855	P-1281	412.00	4.00	130.00	Open	1.44	993.42	993.42	0.00	0.00
2856	P-1282	414.00	4.00	130.00	Open	-0.68	1052.13	1052.13	0.00	0.00
2859	P-1283	429.00	4.00	130.00	Open	-2.18	993.43	993.43	0.00	0.00
2861	P-1284	419.00	4.00	130.00	Open	-1.28	1051.81	1051.81	0.00	0.00
2864	P-1285	423.00	4.00	130.00	Open	-1.44	967.17	967.17	0.00	0.00
2865	P-1286	513.00	4.00	130.00	Open	-2.93	973.48	973.48	0.01	0.00
2866	P-1287	446.00	4.00	130.00	Open	-1.88	981.47	981.48	0.00	0.00
2869	P-1288	426.00	4.00	130.00	Open	1.28	1064.93	1064.93	0.00	0.00
2872	P-1289	428.00	4.00	130.00	Open	4.55	991.18	991.17	0.01	0.00
2873	P-1290	521.00	4.00	130.00	Open	1.74	960.64	960.64	0.00	0.00
2874	P-1291	520.00	4.00	130.00	Open	-2.29	1051.86	1051.86	0.00	0.00
2877	P-1292	437.00	4.00	130.00	Open	0.48	1051.96	1051.96	0.00	0.00
2879	P-1293	438.00	4.00	130.00	Open	-1.48	1064.93	1064.93	0.00	0.00
2882	P-1294	445.00	4.00	130.00	Open	-1.08	1064.87	1064.88	0.00	0.00
2885	P-1295	444.00	4.00	130.00	Open	-0.98	1064.88	1064.88	0.00	0.00
2886	P-1296	450.00	4.00	130.00	Open	2.56	1064.94	1064.94	0.00	0.00
2888	P-1297	489.00	4.00	130.00	Open	0.88	1053.48	1053.48	0.00	0.00
2891	P-1298	476.00	4.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
2894	P-1299	477.00	4.00	130.00	Open	1.44	1051.96	1051.96	0.00	0.00
2895	P-1300	534.00	4.00	130.00	Open	-0.88	963.94	963.94	0.00	0.00
2898	P-1301	543.00	4.00	130.00	Open	-3.72	991.16	991.17	0.01	0.00
2899	P-1302	574.00	4.00	130.00	Open	-1.69	1052.54	1052.54	0.00	0.00
2901	P-1303	590.00	4.00	130.00	Open	1.96	1064.94	1064.94	0.00	0.00
2903	P-1304	562.00	4.00	130.00	Open	1.48	1051.91	1051.91	0.00	0.00
2905	P-1305	557.00	4.00	130.00	Open	-1.08	1051.95	1051.95	0.00	0.00
2907	P-1306	672.00	4.00	130.00	Open	0.83	960.64	960.64	0.00	0.00
2908	P-1307	526.00	4.00	130.00	Open	-7.94	1022.90	1022.94	0.04	0.00
2910	P-1308	529.00	4.00	130.00	Open	3.07	993.43	993.42	0.01	0.00
2911	P-1309	566.00	4.00	130.00	Open	-11.48	973.53	973.61	0.08	0.00
2912	P-1310	563.00	4.00	130.00	Open	0.89	993.37	993.37	0.00	0.00
2915	P-1311	579.00	4.00	130.00	Open	6.54	991.22	991.19	0.03	0.00
2916	P-1312	566.00	4.00	130.00	Open	-0.37	1022.87	1022.87	0.00	0.00
2918	P-1313	602.00	4.00	130.00	Open	-2.49	1052.51	1052.52	0.00	0.00
2921	P-1314	558.00	4.00	130.00	Open	5.75	991.28	991.26	0.02	0.00
2922	P-1315	585.00	4.00	130.00	Open	-1.48	1058.24	1058.24	0.00	0.00
2925	P-1316	573.00	4.00	130.00	Open	0.88	1064.96	1064.96	0.00	0.00
2927	P-1317	626.00	4.00	130.00	Open	1.48	1052.46	1052.45	0.00	0.00
2930	P-1318	600.00	4.00	130.00	Open	-2.17	1022.87	1022.87	0.00	0.00
2931	P-1319	596.00	4.00	130.00	Open	-3.17	1022.87	1022.88	0.01	0.00
2932	P-1320	606.00	4.00	130.00	Open	-3.74	993.42	993.43	0.01	0.00
2934	P-1321	614.00	4.00	130.00	Open	0.94	988.98	988.98	0.00	0.00
2936	P-1322	605.00	4.00	130.00	Open	-1.75	991.16	991.16	0.00	0.00
2937	P-1323	607.00	4.00	130.00	Open	-1.76	1064.98	1064.98	0.00	0.00
2939	P-1324	620.00	4.00	130.00	Open	0.89	1022.90	1022.89	0.00	0.00
2942	P-1325	627.00	4.00	130.00	Open	-1.61	993.42	993.42	0.00	0.00
2943	P-1326	630.00	4.00	130.00	Open	7.82	1056.96	1056.91	0.04	0.00
2946	P-1327	644.00	4.00	130.00	Open	2.33	967.36	967.35	0.00	0.00
2948	P-1328	644.00	4.00	130.00	Open	-8.61	967.13	967.18	0.05	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
2950	P-1329	765.00	4.00	130.00	Open	-0.55	973.52	973.52	0.00	0.00
2952	P-1330	684.00	4.00	130.00	Open	-0.74	991.15	991.16	0.00	0.00
2953	P-1331	652.00	4.00	130.00	Open	0.89	967.35	967.35	0.00	0.00
2955	P-1332	660.00	4.00	130.00	Open	2.07	1022.90	1022.90	0.00	0.00
2956	P-1333	787.00	4.00	130.00	Open	-1.36	973.48	973.48	0.00	0.00
2958	P-1334	761.00	4.00	130.00	Open	1.90	967.41	967.41	0.00	0.00
2959	P-1335	814.00	4.00	130.00	Open	-1.43	973.48	973.48	0.00	0.00
2960	P-1336	729.00	4.00	130.00	Open	-5.62	973.50	973.53	0.03	0.00
2961	P-1337	688.00	4.00	130.00	Open	-5.50	1022.88	1022.90	0.02	0.00
2962	P-1338	725.00	4.00	130.00	Open	-4.93	993.35	993.37	0.02	0.00
2963	P-1339	736.00	4.00	130.00	Open	-2.14	1064.88	1064.88	0.00	0.00
2965	P-1340	747.00	4.00	130.00	Open	-1.28	994.76	994.76	0.00	0.00
2968	P-1341	783.00	4.00	130.00	Open	-1.78	967.07	967.08	0.00	0.00
2969	P-1342	764.00	4.00	130.00	Open	-0.68	1054.10	1054.10	0.00	0.00
2971	P-1343	764.00	4.00	130.00	Open	8.38	1057.01	1056.96	0.06	0.00
2973	P-1344	771.00	4.00	130.00	Open	-1.08	1052.03	1052.04	0.00	0.00
2976	P-1345	813.00	4.00	130.00	Open	3.96	973.52	973.51	0.02	0.00
2977	P-1346	828.00	4.00	130.00	Open	1.06	1022.90	1022.90	0.00	0.00
2979	P-1347	1017.00	4.00	130.00	Open	0.63	993.38	993.38	0.00	0.00
2982	P-1348	796.00	4.00	130.00	Open	-0.78	1064.88	1064.88	0.00	0.00
2984	P-1349	1327.00	4.00	130.00	Open	-1.28	1201.27	1201.27	0.00	0.00
2986	P-1350	814.00	4.00	130.00	Open	-1.08	1052.99	1052.99	0.00	0.00
2988	P-1351	875.00	4.00	130.00	Open	0.88	1064.96	1064.96	0.00	0.00
2993	P-1353	866.00	4.00	130.00	Open	9.29	1057.24	1057.16	0.08	0.00
2995	P-1354	868.00	4.00	130.00	Open	-2.96	967.17	967.18	0.01	0.00
2996	P-1355	955.00	4.00	130.00	Open	-0.48	1051.96	1051.96	0.00	0.00
2998	P-1356	1383.00	4.00	130.00	Open	-1.75	991.25	991.25	0.01	0.00
3000	P-1357	1714.00	4.00	130.00	Open	1.56	991.25	991.25	0.01	0.00
3001	P-1358	1057.00	4.00	130.00	Open	2.96	991.26	991.25	0.01	0.00
3002	P-1359	1087.00	4.00	130.00	Open	1.28	1064.92	1064.92	0.00	0.00
3005	P-1360	1123.00	4.00	130.00	Open	12.38	967.36	967.18	0.18	0.00
3007	P-1361	1171.00	4.00	130.00	Open	-6.46	967.08	967.13	0.06	0.00
3008	P-1362	1283.00	4.00	130.00	Open	7.40	960.77	960.69	0.08	0.00
3010	P-1363	1231.00	4.00	130.00	Open	7.80	991.30	991.22	0.08	0.00
3012	P-1364	1745.00	4.00	130.00	Open	2.42	1022.91	1022.90	0.01	0.00
3013	P-1365	1783.00	4.00	130.00	Open	4.84	960.69	960.64	0.05	0.00
3014	P-1366	2232.00	4.00	130.00	Open	4.20	1019.36	1019.32	0.05	0.00
3015	P-1367	1914.00	4.00	130.00	Open	-2.80	961.54	961.56	0.02	0.00
3017	P-1368	1733.00	4.00	130.00	Open	8.93	1057.16	1057.01	0.15	0.00
3018	P-1369	1900.00	4.00	130.00	Open	4.65	1057.30	1057.25	0.05	0.00
3020	P-1370	2656.00	4.00	130.00	Open	-1.08	1064.98	1064.98	0.00	0.00
3022	P-1371	3976.00	4.00	130.00	Open	3.69	1052.99	1052.92	0.07	0.00
3025	P-1372	7382.00	4.00	130.00	Open	1.48	1057.25	1057.23	0.02	0.00
3027	P-1373	1.00	6.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
3030	P-1374	3.00	6.00	130.00	Open	0.48	1052.73	1052.73	0.00	0.00
3033	P-1375	3.00	6.00	130.00	Open	0.08	1064.94	1064.94	0.00	0.00
3035	P-1376	3.00	6.00	130.00	Open	12.99	1218.60	1218.60	0.00	0.00
3037	P-1377	3.00	6.00	130.00	Open	-0.08	981.47	981.47	0.00	0.00
3040	P-1378	3.00	6.00	130.00	Open	-0.08	1051.78	1051.78	0.00	0.00
3043	P-1379	4.00	6.00	130.00	Open	0.08	1055.82	1055.82	0.00	0.00
3046	P-1380	4.00	6.00	130.00	Open	0.20	1217.94	1217.94	0.00	0.00
3049	P-1381	4.00	6.00	130.00	Open	-1.72	1218.03	1218.03	0.00	0.00
3052	P-1382	4.00	6.00	130.00	Open	0.83	1052.09	1052.09	0.00	0.00
3054	P-1383	5.00	6.00	130.00	Open	0.46	1218.03	1218.03	0.00	0.00
3057	P-1384	5.00	6.00	130.00	Open	-0.08	1057.64	1057.64	0.00	0.00
3060	P-1385	5.00	6.00	130.00	Open	0.08	1051.71	1051.71	0.00	0.00
3063	P-1386	5.00	6.00	130.00	Open	-0.08	1052.10	1052.10	0.00	0.00
3066	P-1387	5.00	6.00	130.00	Open	0.28	1051.47	1051.47	0.00	0.00
3069	P-1388	5.00	6.00	130.00	Open	-7.88	1052.02	1052.02	0.00	0.00
3072	P-1389	5.00	6.00	130.00	Open	1.08	1064.93	1064.93	0.00	0.00
3075	P-1390	5.00	6.00	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
3077	P-1391	5.00	6.00	130.00	Open	0.08	1053.00	1053.00	0.00	0.00
3080	P-1392	5.00	6.00	130.00	Open	-0.28	1064.96	1064.96	0.00	0.00
3082	P-1393	6.00	6.00	130.00	Open	0.08	1064.98	1064.98	0.00	0.00
3085	P-1394	6.00	6.00	130.00	Open	0.48	1056.64	1056.64	0.00	0.00
3088	P-1395	6.00	6.00	130.00	Open	-12.59	1218.60	1218.60	0.00	0.00
3089	P-1396	6.00	6.00	130.00	Open	0.08	1052.09	1052.09	0.00	0.00
3092	P-1397	7.00	6.00	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
3095	P-1398	7.00	6.00	130.00	Open	0.48	1059.00	1059.00	0.00	0.00
3098	P-1399	7.00	6.00	130.00	Open	0.48	1059.01	1059.01	0.00	0.00
3101	P-1400	7.00	6.00	130.00	Open	0.68	1051.74	1051.74	0.00	0.00
3104	P-1401	7.00	6.00	130.00	Open	1.44	1064.93	1064.93	0.00	0.00
3107	P-1402	7.00	6.00	130.00	Open	0.08	1052.80	1052.80	0.00	0.00
3110	P-1403	8.00	6.00	130.00	Open	0.08	1052.80	1052.80	0.00	0.00
3113	P-1404	8.00	6.00	130.00	Open	0.08	1051.86	1051.86	0.00	0.00
3116	P-1405	8.00	6.00	130.00	Open	2.64	1057.27	1057.27	0.00	0.00
3118	P-1406	8.00	6.00	130.00	Open	7.10	1052.55	1052.55	0.00	0.00
3121	P-1407	8.00	6.00	130.00	Open	0.28	1056.68	1056.68	0.00	0.00
3123	P-1408	8.00	6.00	130.00	Open	-1.19	1056.91	1056.91	0.00	0.00
3125	P-1409	9.00	6.00	130.00	Open	0.08	1056.71	1056.71	0.00	0.00
3127	P-1410	9.00	6.00	130.00	Open	-9.36	1054.00	1054.00	0.00	0.00
3130	P-1411	9.00	6.00	130.00	Open	1.84	1054.24	1054.24	0.00	0.00
3132	P-1412	9.00	6.00	130.00	Open	-0.08	1051.78	1051.78	0.00	0.00
3135	P-1413	9.00	6.00	130.00	Open	0.28	1053.98	1053.98	0.00	0.00
3138	P-1414	9.00	6.00	130.00	Open	0.08	1052.88	1052.88	0.00	0.00
3141	P-1415	9.00	6.00	130.00	Open	0.88	1051.76	1051.76	0.00	0.00
3144	P-1416	9.00	6.00	130.00	Open	0.48	963.95	963.95	0.00	0.00
3147	P-1417	9.00	6.00	130.00	Open	-29.81	1051.47	1051.47	0.00	0.00
3149	P-1418	9.00	6.00	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
3151	P-1419	9.00	6.00	130.00	Open	-0.28	1062.17	1062.17	0.00	0.00
3153	P-1420	9.00	6.00	130.00	Open	0.48	1056.15	1056.15	0.00	0.00
3155	P-1421	10.00	6.00	130.00	Open	1.44	1051.73	1051.73	0.00	0.00
3158	P-1422	10.00	6.00	130.00	Open	0.37	1218.15	1218.15	0.00	0.00
3161	P-1423	10.00	6.00	130.00	Open	0.76	1064.96	1064.96	0.00	0.00
3163	P-1424	10.00	6.00	130.00	Open	-0.63	1051.21	1051.21	0.00	0.00
3165	P-1425	10.00	6.00	130.00	Open	1.03	1064.93	1064.93	0.00	0.00
3167	P-1426	11.00	6.00	130.00	Open	0.56	1057.13	1057.13	0.00	0.00
3169	P-1427	15.00	6.00	130.00	Open	7.40	1064.94	1064.94	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3171	P-1428	11.00	6.00	130.00	Open	-2.16	1051.81	1051.81	0.00	0.00
3173	P-1429	11.00	6.00	130.00	Open	-0.28	1056.91	1056.91	0.00	0.00
3176	P-1430	11.00	6.00	130.00	Open	-0.68	1053.00	1053.00	0.00	0.00
3179	P-1431	11.00	6.00	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
3182	P-1432	15.00	6.00	130.00	Open	-0.08	1064.86	1064.86	0.00	0.00
3185	P-1433	12.00	6.00	130.00	Open	0.48	1056.61	1056.61	0.00	0.00
3187	P-1434	12.00	6.00	130.00	Open	0.08	1051.78	1051.78	0.00	0.00
3190	P-1435	12.00	6.00	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
3192	P-1436	12.00	6.00	130.00	Open	0.08	1057.29	1057.29	0.00	0.00
3195	P-1437	12.00	6.00	130.00	Open	-0.76	1052.13	1052.13	0.00	0.00
3197	P-1438	12.00	6.00	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
3200	P-1439	12.00	6.00	130.00	Open	0.08	1053.84	1053.84	0.00	0.00
3203	P-1440	12.00	6.00	130.00	Open	1.51	1064.93	1064.93	0.00	0.00
3206	P-1441	12.00	6.00	130.00	Open	-1.36	1064.93	1064.93	0.00	0.00
3208	P-1442	12.00	6.00	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
3211	P-1443	12.00	6.00	130.00	Open	1.36	1064.93	1064.93	0.00	0.00
3212	P-1444	13.00	6.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
3215	P-1445	13.00	6.00	130.00	Open	0.68	1053.00	1053.00	0.00	0.00
3218	P-1446	13.00	6.00	130.00	Open	3.24	1064.98	1064.98	0.00	0.00
3220	P-1447	13.00	6.00	130.00	Open	0.20	1218.04	1218.04	0.00	0.00
3222	P-1448	13.00	6.00	130.00	Open	1.84	1055.83	1055.83	0.00	0.00
3225	P-1449	14.00	6.00	130.00	Open	0.28	1059.33	1059.33	0.00	0.00
3228	P-1450	14.00	6.00	130.00	Open	12.21	993.44	993.44	0.00	0.00
3231	P-1451	14.00	6.00	130.00	Open	-2.84	1059.86	1059.86	0.00	0.00
3233	P-1452	14.00	6.00	130.00	Open	-0.08	1052.03	1052.03	0.00	0.00
3236	P-1453	15.00	6.00	130.00	Open	-0.08	1059.76	1059.76	0.00	0.00
3239	P-1454	15.00	6.00	130.00	Open	0.96	1057.59	1057.59	0.00	0.00
3241	P-1455	15.00	6.00	130.00	Open	0.28	1064.93	1064.93	0.00	0.00
3244	P-1456	15.00	6.00	130.00	Open	-0.08	1051.94	1051.94	0.00	0.00
3247	P-1457	16.00	6.00	130.00	Open	-0.08	1052.99	1052.99	0.00	0.00
3250	P-1458	16.00	6.00	130.00	Open	0.68	1053.03	1053.03	0.00	0.00
3253	P-1459	16.00	6.00	130.00	Open	0.48	1063.59	1063.59	0.00	0.00
3256	P-1460	16.00	6.00	130.00	Open	1.64	1053.03	1053.03	0.00	0.00
3258	P-1461	16.00	6.00	130.00	Open	-0.26	1322.91	1322.91	0.00	0.00
3261	P-1462	16.00	6.00	130.00	Open	-2.76	1051.86	1051.86	0.00	0.00
3263	P-1463	17.00	6.00	130.00	Open	0.83	1053.06	1053.06	0.00	0.00
3266	P-1464	17.00	6.00	130.00	Open	1.44	1060.74	1060.74	0.00	0.00
3268	P-1465	17.00	6.00	130.00	Open	0.08	1057.31	1057.31	0.00	0.00
3271	P-1466	17.00	6.00	130.00	Open	0.55	1218.03	1218.03	0.00	0.00
3274	P-1467	18.00	6.00	130.00	Open	0.88	1051.31	1051.31	0.00	0.00
3277	P-1468	18.00	6.00	130.00	Open	23.03	1052.37	1052.37	0.00	0.00
3280	P-1469	18.00	6.00	130.00	Open	-0.40	1218.15	1218.15	0.00	0.00
3282	P-1470	18.00	6.00	130.00	Open	2.04	1064.82	1064.82	0.00	0.00
3284	P-1471	18.00	6.00	130.00	Open	0.76	1057.53	1057.53	0.00	0.00
3286	P-1472	19.00	6.00	130.00	Open	3.40	1060.74	1060.74	0.00	0.00
3288	P-1473	19.00	6.00	130.00	Open	0.28	1053.85	1053.85	0.00	0.00
3291	P-1474	19.00	6.00	130.00	Open	0.08	1053.06	1053.06	0.00	0.00
3294	P-1475	19.00	6.00	130.00	Open	0.88	1054.24	1054.24	0.00	0.00
3296	P-1476	19.00	6.00	130.00	Open	0.83	1064.93	1064.93	0.00	0.00
3298	P-1477	20.00	6.00	130.00	Open	12.40	1053.00	1053.00	0.00	0.00
3300	P-1478	20.00	6.00	130.00	Open	2.04	1060.74	1060.74	0.00	0.00
3302	P-1479	21.00	6.00	130.00	Open	0.48	1060.74	1060.74	0.00	0.00
3304	P-1480	21.00	6.00	130.00	Open	0.96	1059.76	1059.76	0.00	0.00
3306	P-1481	21.00	6.00	130.00	Open	-0.60	1218.15	1218.15	0.00	0.00
3308	P-1482	22.00	6.00	130.00	Open	8.38	960.77	960.77	0.00	0.00
3310	P-1483	23.00	6.00	130.00	Open	-2.89	1064.88	1064.88	0.00	0.00
3312	P-1484	23.00	6.00	130.00	Open	-0.83	994.76	994.76	0.00	0.00
3314	P-1485	23.00	6.00	130.00	Open	4.91	993.44	993.44	0.00	0.00
3315	P-1486	24.00	6.00	130.00	Open	3.35	1218.03	1218.03	0.00	0.00
3318	P-1487	24.00	6.00	130.00	Open	0.08	1060.74	1060.74	0.00	0.00
3320	P-1488	24.00	6.00	130.00	Open	0.28	1064.94	1064.94	0.00	0.00
3323	P-1489	27.00	6.00	130.00	Open	-0.48	1051.98	1051.98	0.00	0.00
3326	P-1490	24.00	6.00	130.00	Open	1.03	1064.93	1064.93	0.00	0.00
3328	P-1491	24.00	6.00	130.00	Open	9.19	1052.72	1052.72	0.00	0.00
3331	P-1492	25.00	6.00	130.00	Open	0.08	1053.00	1053.00	0.00	0.00
3334	P-1493	26.00	6.00	130.00	Open	-0.40	1218.60	1218.60	0.00	0.00
3335	P-1494	26.00	6.00	130.00	Open	2.56	1056.79	1056.79	0.00	0.00
3337	P-1495	27.00	6.00	130.00	Open	-1.64	1064.81	1064.81	0.00	0.00
3339	P-1496	28.00	6.00	130.00	Open	1.29	1218.15	1218.15	0.00	0.00
3342	P-1497	29.00	6.00	130.00	Open	1.23	1052.99	1052.99	0.00	0.00
3344	P-1498	30.00	6.00	130.00	Open	0.28	1056.82	1056.82	0.00	0.00
3346	P-1499	30.00	6.00	130.00	Open	0.55	988.98	988.98	0.00	0.00
3349	P-1500	31.00	6.00	130.00	Open	1.84	1063.13	1063.13	0.00	0.00
3350	P-1501	31.00	6.00	130.00	Open	-1.17	981.47	981.47	0.00	0.00
3353	P-1502	31.00	6.00	130.00	Open	0.08	1057.64	1057.64	0.00	0.00
3356	P-1503	34.00	6.00	130.00	Open	-2.66	1056.79	1056.79	0.00	0.00
3358	P-1504	33.00	6.00	130.00	Open	-3.85	1052.09	1052.09	0.00	0.00
3361	P-1505	33.00	6.00	130.00	Open	1.15	1218.03	1218.03	0.00	0.00
3364	P-1506	34.00	6.00	130.00	Open	0.63	1055.82	1055.82	0.00	0.00
3365	P-1507	34.00	6.00	130.00	Open	1.44	1063.05	1063.05	0.00	0.00
3366	P-1508	34.00	6.00	130.00	Open	0.43	1052.73	1052.73	0.00	0.00
3368	P-1509	34.00	6.00	130.00	Open	2.04	1053.16	1053.16	0.00	0.00
3370	P-1510	35.00	6.00	130.00	Open	8.61	1064.93	1064.93	0.00	0.00
3373	P-1511	35.00	6.00	130.00	Open	0.94	1218.03	1218.03	0.00	0.00
3375	P-1512	37.00	6.00	130.00	Open	0.55	1218.03	1218.03	0.00	0.00
3377	P-1513	39.00	6.00	130.00	Open	0.38	1057.64	1057.64	0.00	0.00
3379	P-1514	37.00	6.00	130.00	Open	1.23	1054.24	1054.24	0.00	0.00
3381	P-1515	37.00	6.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
3383	P-1516	38.00	6.00	130.00	Open	7.71	963.95	963.95	0.00	0.00
3384	P-1517	38.00	6.00	130.00	Open	0.48	1051.95	1051.95	0.00	0.00
3386	P-1518	38.00	6.00	130.00	Open	0.08	1052.09	1052.09	0.00	0.00
3388	P-1519	38.00	6.00	130.00	Open	0.20	1216.97	1216.97	0.00	0.00
3391	P-1520	39.00	6.00	130.00	Open	1.66	1051.79	1051.79	0.00	0.00
3394	P-1521	40.00	6.00	130.00	Open	8.38	1217.75	1217.75	0.00	0.00
3396	P-1522	40.00	6.00	130.00	Open	0.28	1053.06	1053.06	0.00	0.00
3398	P-1523	40.00	6.00	130.00	Open	-0.96	1064.93	1064.93	0.00	0.00
3400	P-1524	41.00	6.00	130.00	Open	1.23	1064.97	1064.97	0.00	0.00
3402	P-1525	42.00	6.00	130.00	Open	1.81	1059.76	1059.76	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3404	P-1526	45.00	6.00	130.00	Open	-8.67	993.37	993.37	0.00	0.00
3406	P-1527	45.00	6.00	130.00	Open	-0.63	1064.98	1064.98	0.00	0.00
3409	P-1528	45.00	6.00	130.00	Open	2.72	1052.04	1052.04	0.00	0.00
3411	P-1529	47.00	6.00	130.00	Open	0.68	1056.78	1056.78	0.00	0.00
3414	P-1530	47.00	6.00	130.00	Open	0.48	1064.97	1064.97	0.00	0.00
3417	P-1531	48.00	6.00	130.00	Open	16.41	1064.93	1064.92	0.00	0.00
3419	P-1532	48.00	6.00	130.00	Open	4.18	1218.03	1218.03	0.00	0.00
3420	P-1533	48.00	6.00	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
3423	P-1534	48.00	6.00	130.00	Open	-1.59	1064.98	1064.98	0.00	0.00
3425	P-1535	48.00	6.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
3428	P-1536	50.00	6.00	130.00	Open	0.89	1057.64	1057.64	0.00	0.00
3431	P-1537	57.00	6.00	130.00	Open	3.37	1052.52	1052.52	0.00	0.00
3433	P-1538	52.00	6.00	130.00	Open	1.64	1053.48	1053.48	0.00	0.00
3435	P-1539	52.00	6.00	130.00	Open	-1.03	981.47	981.47	0.00	0.00
3437	P-1540	52.00	6.00	130.00	Open	-6.66	1051.79	1051.79	0.00	0.00
3440	P-1541	53.00	6.00	130.00	Open	-2.84	1051.74	1051.74	0.00	0.00
3443	P-1542	53.00	6.00	130.00	Open	-12.15	1052.66	1052.66	0.00	0.00
3445	P-1543	54.00	6.00	130.00	Open	2.16	1051.79	1051.79	0.00	0.00
3446	P-1544	55.00	6.00	130.00	Open	1.44	1057.28	1057.28	0.00	0.00
3449	P-1545	55.00	6.00	130.00	Open	3.04	1052.12	1052.12	0.00	0.00
3452	P-1546	56.00	6.00	130.00	Open	3.20	1064.82	1064.82	0.00	0.00
3455	P-1547	56.00	6.00	130.00	Open	-0.08	1064.98	1064.98	0.00	0.00
3457	P-1548	57.00	6.00	130.00	Open	-2.72	1059.86	1059.86	0.00	0.00
3459	P-1549	59.00	6.00	130.00	Open	1.23	1051.96	1051.96	0.00	0.00
3462	P-1550	59.00	6.00	130.00	Open	-2.11	1061.13	1061.13	0.00	0.00
3463	P-1551	61.00	6.00	130.00	Open	0.23	1051.71	1051.71	0.00	0.00
3465	P-1552	61.00	6.00	130.00	Open	12.13	1064.88	1064.88	0.00	0.00
3468	P-1553	62.00	6.00	130.00	Open	19.04	1052.53	1052.53	0.00	0.00
3471	P-1554	64.00	6.00	130.00	Open	-13.29	1051.87	1051.87	0.00	0.00
3474	P-1555	64.00	6.00	130.00	Open	-0.28	1052.64	1052.64	0.00	0.00
3477	P-1556	65.00	6.00	130.00	Open	-0.63	1051.98	1051.98	0.00	0.00
3479	P-1557	65.00	6.00	130.00	Open	1.32	1218.03	1218.03	0.00	0.00
3481	P-1558	65.00	6.00	130.00	Open	6.27	1053.85	1053.85	0.00	0.00
3483	P-1559	66.00	6.00	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
3486	P-1560	66.00	6.00	130.00	Open	4.55	1053.84	1053.84	0.00	0.00
3488	P-1561	67.00	6.00	130.00	Open	0.48	1057.36	1057.36	0.00	0.00
3491	P-1562	72.00	6.00	130.00	Open	1.41	1218.03	1218.03	0.00	0.00
3493	P-1563	68.00	6.00	130.00	Open	-3.76	1051.82	1051.82	0.00	0.00
3496	P-1564	70.00	6.00	130.00	Open	4.63	981.47	981.47	0.00	0.00
3498	P-1565	70.00	6.00	130.00	Open	-0.08	1051.21	1051.21	0.00	0.00
3500	P-1566	70.00	6.00	130.00	Open	0.08	1059.76	1059.76	0.00	0.00
3503	P-1567	100.00	6.00	130.00	Open	0.68	1052.01	1052.01	0.00	0.00
3506	P-1568	71.00	6.00	130.00	Open	-23.51	1051.85	1051.86	0.01	0.00
3509	P-1569	71.00	6.00	130.00	Open	-7.68	981.48	981.48	0.00	0.00
3512	P-1570	71.00	6.00	130.00	Open	1.58	1218.03	1218.03	0.00	0.00
3513	P-1571	71.00	6.00	130.00	Open	-1.08	1218.03	1218.03	0.00	0.00
3516	P-1572	73.00	6.00	130.00	Open	2.84	1052.64	1052.64	0.00	0.00
3518	P-1573	73.00	6.00	130.00	Open	1.84	1060.49	1060.49	0.00	0.00
3519	P-1574	73.00	6.00	130.00	Open	2.04	1059.75	1059.75	0.00	0.00
3521	P-1575	74.00	6.00	130.00	Open	2.64	1054.15	1054.15	0.00	0.00
3523	P-1576	74.00	6.00	130.00	Open	-1.38	1052.09	1052.09	0.00	0.00
3526	P-1577	76.00	6.00	130.00	Open	0.48	1056.05	1056.05	0.00	0.00
3529	P-1578	76.00	6.00	130.00	Open	-2.79	1051.21	1051.21	0.00	0.00
3530	P-1579	77.00	6.00	130.00	Open	-8.03	1052.02	1052.02	0.00	0.00
3531	P-1580	77.00	6.00	130.00	Open	-2.24	1051.74	1051.74	0.00	0.00
3534	P-1581	79.00	6.00	130.00	Open	7.35	1064.88	1064.88	0.00	0.00
3536	P-1582	79.00	6.00	130.00	Open	2.90	1053.06	1053.06	0.00	0.00
3538	P-1583	80.00	6.00	130.00	Open	0.23	1052.80	1052.80	0.00	0.00
3540	P-1584	80.00	6.00	130.00	Open	1.23	1054.24	1054.24	0.00	0.00
3542	P-1585	82.00	6.00	130.00	Open	4.20	1059.01	1059.01	0.00	0.00
3545	P-1586	82.00	6.00	130.00	Open	6.26	963.94	963.94	0.00	0.00
3548	P-1587	83.00	6.00	130.00	Open	0.60	1217.94	1217.94	0.00	0.00
3549	P-1588	83.00	6.00	130.00	Open	-5.42	1053.85	1053.85	0.00	0.00
3550	P-1589	84.00	6.00	130.00	Open	6.96	981.48	981.48	0.00	0.00
3553	P-1590	89.00	6.00	130.00	Open	2.89	988.98	988.98	0.00	0.00
3556	P-1591	85.00	6.00	130.00	Open	-0.08	1052.37	1052.37	0.00	0.00
3559	P-1592	89.00	6.00	130.00	Open	0.48	1064.98	1064.98	0.00	0.00
3562	P-1593	89.00	6.00	130.00	Open	1.81	1218.03	1218.03	0.00	0.00
3564	P-1594	90.00	6.00	130.00	Open	1.03	1053.84	1053.84	0.00	0.00
3565	P-1595	92.00	6.00	130.00	Open	-2.84	1061.38	1061.38	0.00	0.00
3568	P-1596	93.00	6.00	130.00	Open	-7.68	1059.77	1059.77	0.00	0.00
3570	P-1597	95.00	6.00	130.00	Open	1.24	1218.03	1218.03	0.00	0.00
3572	P-1598	94.00	6.00	130.00	Open	-27.70	1051.39	1051.40	0.01	0.00
3575	P-1599	95.00	6.00	130.00	Open	-0.70	1059.76	1059.76	0.00	0.00
3578	P-1600	96.00	6.00	130.00	Open	1.11	1052.53	1052.53	0.00	0.00
3580	P-1601	96.00	6.00	130.00	Open	8.77	1064.93	1064.93	0.00	0.00
3582	P-1602	97.00	6.00	130.00	Open	8.26	1052.54	1052.54	0.00	0.00
3584	P-1603	106.00	6.00	130.00	Open	0.08	1059.33	1059.33	0.00	0.00
3586	P-1604	98.00	6.00	130.00	Open	0.08	1051.80	1051.80	0.00	0.00
3589	P-1605	139.00	6.00	130.00	Open	2.97	1218.03	1218.03	0.00	0.00
3592	P-1606	101.00	6.00	130.00	Open	0.88	1056.78	1056.78	0.00	0.00
3595	P-1607	104.00	6.00	130.00	Open	2.04	1052.96	1052.96	0.00	0.00
3598	P-1608	105.00	6.00	130.00	Open	0.88	1056.78	1056.78	0.00	0.00
3600	P-1609	109.00	6.00	130.00	Open	4.46	1054.24	1054.24	0.00	0.00
3602	P-1610	109.00	6.00	130.00	Open	1.56	1064.81	1064.81	0.00	0.00
3604	P-1611	132.00	6.00	130.00	Open	7.40	1064.94	1064.94	0.00	0.00
3605	P-1612	112.00	6.00	130.00	Open	2.16	1052.04	1052.04	0.00	0.00
3606	P-1613	120.00	6.00	130.00	Open	1.76	1064.82	1064.82	0.00	0.00
3608	P-1614	120.00	6.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
3610	P-1615	122.00	6.00	130.00	Open	5.18	1064.97	1064.97	0.00	0.00
3612	P-1616	123.00	6.00	130.00	Open	-3.70	1064.98	1064.98	0.00	0.00
3614	P-1617	123.00	6.00	130.00	Open	-10.65	1051.27	1051.27	0.00	0.00
3617	P-1618	123.00	6.00	130.00	Open	0.28	1056.77	1056.77	0.00	0.00
3619	P-1619	149.00	6.00	130.00	Open	10.50	1052.73	1052.73	0.00	0.00
3620	P-1620	135.00	6.00	130.00	Open	5.46	1218.03	1218.03	0.00	0.00
3622	P-1621	127.00	6.00	130.00	Open	0.52	1322.91	1322.91	0.00	0.00
3624	P-1622	127.00	6.00	130.00	Open	0.88	1064.93	1064.93	0.00	0.00
3627	P-1623	129.00	6.00	130.00	Open	3.18	1064.93	1064.93	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3629	P-1624	134.00	6.00	130.00	Open	-23.62	1051.35	1051.36	0.01	0.00
3632	P-1625	134.00	6.00	130.00	Open	3.44	1052.03	1052.03	0.00	0.00
3635	P-1626	139.00	6.00	130.00	Open	-12.17	1053.85	1053.85	0.00	0.00
3636	P-1627	136.00	6.00	130.00	Open	-12.31	1217.78	1217.78	0.00	0.00
3638	P-1628	145.00	6.00	130.00	Open	-3.33	1052.68	1052.68	0.00	0.00
3640	P-1629	147.00	6.00	130.00	Open	5.36	1059.75	1059.74	0.00	0.00
3642	P-1630	158.00	6.00	130.00	Open	-0.88	1051.74	1051.74	0.00	0.00
3645	P-1631	149.00	6.00	130.00	Open	8.74	1064.97	1064.96	0.00	0.00
3648	P-1632	151.00	6.00	130.00	Open	-0.28	994.76	994.76	0.00	0.00
3650	P-1633	152.00	6.00	130.00	Open	3.60	1051.76	1051.76	0.00	0.00
3653	P-1634	158.00	6.00	130.00	Open	0.48	1064.82	1064.82	0.00	0.00
3656	P-1635	160.00	6.00	130.00	Open	1.56	1064.86	1064.86	0.00	0.00
3657	P-1636	162.00	6.00	130.00	Open	5.74	1064.96	1064.96	0.00	0.00
3659	P-1637	165.00	6.00	130.00	Open	-9.32	993.37	993.37	0.00	0.00
3660	P-1638	165.00	6.00	130.00	Open	5.99	981.47	981.47	0.00	0.00
3661	P-1639	168.00	6.00	130.00	Open	0.28	1053.06	1053.06	0.00	0.00
3663	P-1640	168.00	6.00	130.00	Open	2.19	1059.75	1059.75	0.00	0.00
3665	P-1641	169.00	6.00	130.00	Open	2.27	1064.87	1064.86	0.00	0.00
3668	P-1642	172.00	6.00	130.00	Open	2.50	988.98	988.98	0.00	0.00
3669	P-1643	172.00	6.00	130.00	Open	-2.11	1061.95	1061.95	0.00	0.00
3672	P-1644	178.00	6.00	130.00	Open	-0.88	1051.72	1051.72	0.00	0.00
3675	P-1645	179.00	6.00	130.00	Open	1.08	1051.76	1051.76	0.00	0.00
3678	P-1646	180.00	6.00	130.00	Open	2.44	1051.80	1051.80	0.00	0.00
3681	P-1647	196.00	6.00	130.00	Open	-1.56	1051.36	1051.36	0.00	0.00
3682	P-1648	186.00	6.00	130.00	Open	-2.87	1059.86	1059.86	0.00	0.00
3684	P-1649	210.00	6.00	130.00	Open	-26.10	1218.12	1218.14	0.02	0.00
3687	P-1650	188.00	6.00	130.00	Open	-57.08	1057.42	1057.49	0.07	0.00
3690	P-1651	189.00	6.00	130.00	Open	-2.55	1052.64	1052.64	0.00	0.00
3693	P-1652	193.00	6.00	130.00	Open	0.22	1218.15	1218.15	0.00	0.00
3696	P-1653	195.00	6.00	130.00	Open	0.08	1057.60	1057.60	0.00	0.00
3698	P-1654	196.00	6.00	130.00	Open	-1.79	1064.96	1064.96	0.00	0.00
3700	P-1655	239.00	6.00	130.00	Open	0.48	1052.04	1052.04	0.00	0.00
3703	P-1656	197.00	6.00	130.00	Open	3.90	1054.24	1054.24	0.00	0.00
3704	P-1657	197.00	6.00	130.00	Open	2.64	981.47	981.47	0.00	0.00
3706	P-1658	199.00	6.00	130.00	Open	5.00	1052.99	1052.99	0.00	0.00
3709	P-1659	209.00	6.00	130.00	Open	-0.43	1051.78	1051.78	0.00	0.00
3711	P-1660	200.00	6.00	130.00	Open	1.84	1051.80	1051.80	0.00	0.00
3713	P-1661	203.00	6.00	130.00	Open	-1.71	1064.93	1064.93	0.00	0.00
3715	P-1662	210.00	6.00	130.00	Open	-0.88	1051.82	1051.82	0.00	0.00
3718	P-1663	204.00	6.00	130.00	Open	-1.36	1051.80	1051.80	0.00	0.00
3719	P-1664	205.00	6.00	130.00	Open	0.88	1060.74	1060.74	0.00	0.00
3722	P-1665	211.00	6.00	130.00	Open	-7.18	1051.71	1051.72	0.00	0.00
3724	P-1666	213.00	6.00	130.00	Open	10.90	1052.53	1052.52	0.00	0.00
3726	P-1667	234.00	6.00	130.00	Open	-1.28	1052.53	1052.53	0.00	0.00
3729	P-1668	220.00	6.00	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
3732	P-1669	217.00	6.00	130.00	Open	-1.08	981.47	981.47	0.00	0.00
3734	P-1670	228.00	6.00	130.00	Open	6.07	1060.74	1060.74	0.00	0.00
3736	P-1671	224.00	6.00	130.00	Open	-2.04	1051.92	1051.92	0.00	0.00
3739	P-1672	226.00	6.00	130.00	Open	1.34	1051.78	1051.78	0.00	0.00
3741	P-1673	227.00	6.00	130.00	Open	-2.24	1051.92	1051.92	0.00	0.00
3743	P-1674	291.00	6.00	130.00	Open	3.60	1064.98	1064.98	0.00	0.00
3745	P-1675	228.00	6.00	130.00	Open	1.56	1064.96	1064.96	0.00	0.00
3748	P-1676	231.00	6.00	130.00	Open	0.83	963.95	963.95	0.00	0.00
3749	P-1677	231.00	6.00	130.00	Open	0.23	1052.80	1052.80	0.00	0.00
3750	P-1678	233.00	6.00	130.00	Open	-0.48	1051.92	1051.92	0.00	0.00
3752	P-1679	235.00	6.00	130.00	Open	2.84	1051.76	1051.76	0.00	0.00
3755	P-1680	244.00	6.00	130.00	Open	6.29	1218.03	1218.03	0.00	0.00
3756	P-1681	238.00	6.00	130.00	Open	-1.56	1061.95	1061.95	0.00	0.00
3757	P-1682	238.00	6.00	130.00	Open	0.28	1052.03	1052.03	0.00	0.00
3759	P-1683	245.00	6.00	130.00	Open	5.67	1218.03	1218.03	0.00	0.00
3760	P-1684	239.00	6.00	130.00	Open	2.22	1051.79	1051.79	0.00	0.00
3762	P-1685	258.00	6.00	130.00	Open	-0.76	1051.39	1051.39	0.00	0.00
3763	P-1686	261.00	6.00	130.00	Open	-0.28	1057.34	1057.34	0.00	0.00
3766	P-1687	254.00	6.00	130.00	Open	14.67	1059.77	1059.77	0.01	0.00
3768	P-1688	261.00	6.00	130.00	Open	3.47	1056.79	1056.79	0.00	0.00
3771	P-1689	250.00	6.00	130.00	Open	0.12	1051.31	1051.31	0.00	0.00
3773	P-1690	250.00	6.00	130.00	Open	-0.43	1059.76	1059.76	0.00	0.00
3775	P-1691	280.00	6.00	130.00	Open	0.00	1064.96	1064.96	0.00	0.00
3776	P-1692	257.00	6.00	130.00	Open	1.08	1064.93	1064.93	0.00	0.00
3778	P-1693	298.00	6.00	130.00	Open	4.50	963.94	963.93	0.00	0.00
3780	P-1694	258.00	6.00	130.00	Open	0.83	1052.04	1052.04	0.00	0.00
3781	P-1695	265.00	6.00	130.00	Open	1.56	1061.95	1061.95	0.00	0.00
3783	P-1696	265.00	6.00	130.00	Open	0.68	1064.98	1064.98	0.00	0.00
3785	P-1697	265.00	6.00	130.00	Open	0.08	1051.77	1051.77	0.00	0.00
3788	P-1698	267.00	6.00	130.00	Open	2.84	1053.70	1053.70	0.00	0.00
3789	P-1699	268.00	6.00	130.00	Open	0.68	1064.93	1064.93	0.00	0.00
3792	P-1700	293.00	6.00	130.00	Open	1.56	1059.76	1059.76	0.00	0.00
3794	P-1701	276.00	6.00	130.00	Open	-2.16	1052.98	1052.98	0.00	0.00
3796	P-1702	286.00	6.00	130.00	Open	-1.04	1062.54	1062.54	0.00	0.00
3799	P-1703	278.00	6.00	130.00	Open	0.18	988.98	988.98	0.00	0.00
3800	P-1704	275.00	6.00	130.00	Open	0.96	1052.53	1052.53	0.00	0.00
3801	P-1705	276.00	6.00	130.00	Open	-1.08	1064.93	1064.93	0.00	0.00
3803	P-1706	276.00	6.00	130.00	Open	-1.08	1051.31	1051.31	0.00	0.00
3805	P-1707	338.00	6.00	130.00	Open	-1.08	1051.80	1051.80	0.00	0.00
3808	P-1708	290.00	6.00	130.00	Open	0.63	1051.78	1051.78	0.00	0.00
3809	P-1709	302.00	6.00	130.00	Open	5.20	1053.70	1053.70	0.00	0.00
3811	P-1710	314.00	6.00	130.00	Open	-4.96	1051.21	1051.21	0.00	0.00
3813	P-1711	281.00	6.00	130.00	Open	2.16	1051.23	1051.23	0.00	0.00
3815	P-1712	284.00	6.00	130.00	Open	7.04	1064.94	1064.94	0.00	0.00
3816	P-1713	290.00	6.00	130.00	Open	4.52	1051.24	1051.23	0.00	0.00
3818	P-1714	291.00	6.00	130.00	Open	0.80	1322.91	1322.91	0.00	0.00
3820	P-1715	285.00	6.00	130.00	Open	6.31	1059.75	1059.75	0.00	0.00
3821	P-1716	286.00	6.00	130.00	Open	5.00	1062.80	1062.79	0.00	0.00
3823	P-1717	286.00	6.00	130.00	Open	-1.28	1051.87	1051.87	0.00	0.00
3826	P-1718	286.00	6.00	130.00	Open	-2.32	981.47	981.47	0.00	0.00
3827	P-1719	290.00	6.00	130.00	Open	4.25	963.94	963.94	0.00	0.00
3830	P-1720	288.00	6.00	130.00	Open	0.88	1057.27	1057.27	0.00	0.00
3832	P-1721	288.00	6.00	130.00	Open	0.28	1053.98	1053.98	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
3835	P-1722	301.00	6.00	130.00	Open	1.19	1064.93	1064.93	0.00	0.00
3836	P-1723	291.00	6.00	130.00	Open	-26.46	1051.36	1051.39	0.03	0.00
3837	P-1724	291.00	6.00	130.00	Open	5.59	963.95	963.95	0.00	0.00
3839	P-1725	293.00	6.00	130.00	Open	-9.41	1051.85	1051.85	0.00	0.00
3842	P-1726	293.00	6.00	130.00	Open	-0.43	1051.94	1051.94	0.00	0.00
3844	P-1727	294.00	6.00	130.00	Open	-1.56	1053.99	1053.99	0.00	0.00
3847	P-1728	298.00	6.00	130.00	Open	0.41	1053.00	1053.00	0.00	0.00
3849	P-1729	301.00	6.00	130.00	Open	11.36	1052.74	1052.74	0.01	0.00
3851	P-1730	299.00	6.00	130.00	Open	0.63	1218.15	1218.15	0.00	0.00
3852	P-1731	305.00	6.00	130.00	Open	0.68	1055.83	1055.83	0.00	0.00
3854	P-1732	302.00	6.00	130.00	Open	17.91	1051.75	1051.74	0.01	0.00
3857	P-1733	306.00	6.00	130.00	Open	4.37	993.43	993.43	0.00	0.00
3858	P-1734	304.00	6.00	130.00	Open	0.43	1064.93	1064.93	0.00	0.00
3859	P-1735	304.00	6.00	130.00	Open	-12.66	1051.73	1051.74	0.01	0.00
3861	P-1736	305.00	6.00	130.00	Open	-6.40	993.37	993.37	0.00	0.00
3862	P-1737	402.00	6.00	130.00	Open	0.48	1064.98	1064.98	0.00	0.00
3865	P-1738	326.00	6.00	130.00	Open	2.72	1052.99	1052.99	0.00	0.00
3866	P-1739	306.00	6.00	130.00	Open	11.01	1052.74	1052.73	0.01	0.00
3867	P-1740	307.00	6.00	130.00	Open	8.26	963.96	963.95	0.00	0.00
3869	P-1741	336.00	6.00	130.00	Open	5.36	1059.76	1059.76	0.00	0.00
3872	P-1742	319.00	6.00	130.00	Open	-1.36	1053.99	1053.99	0.00	0.00
3874	P-1743	316.00	6.00	130.00	Open	0.68	1051.74	1051.74	0.00	0.00
3877	P-1744	312.00	6.00	130.00	Open	10.99	1051.78	1051.77	0.01	0.00
3879	P-1745	314.00	6.00	130.00	Open	-1.68	1052.03	1052.03	0.00	0.00
3881	P-1746	314.00	6.00	130.00	Open	-3.44	1051.28	1051.28	0.00	0.00
3883	P-1747	326.00	6.00	130.00	Open	-1.08	1053.99	1053.99	0.00	0.00
3886	P-1748	316.00	6.00	130.00	Open	8.40	1052.99	1052.99	0.00	0.00
3887	P-1749	317.00	6.00	130.00	Open	-0.88	1052.99	1052.99	0.00	0.00
3889	P-1750	325.00	6.00	130.00	Open	0.48	1064.98	1064.98	0.00	0.00
3891	P-1751	322.00	6.00	130.00	Open	-6.93	1059.87	1059.87	0.00	0.00
3893	P-1752	320.00	6.00	130.00	Open	0.68	1055.83	1055.83	0.00	0.00
3895	P-1753	321.00	6.00	130.00	Open	2.44	1064.93	1064.93	0.00	0.00
3897	P-1754	330.00	6.00	130.00	Open	-1.08	1052.96	1052.96	0.00	0.00
3899	P-1755	336.00	6.00	130.00	Open	1.44	1062.85	1062.85	0.00	0.00
3900	P-1756	405.00	6.00	130.00	Open	-4.00	981.47	981.47	0.00	0.00
3902	P-1757	350.00	6.00	130.00	Open	12.61	993.45	993.44	0.01	0.00
3904	P-1758	336.00	6.00	130.00	Open	1.84	1064.82	1064.82	0.00	0.00
3906	P-1759	335.00	6.00	130.00	Open	-1.28	1051.92	1051.92	0.00	0.00
3908	P-1760	337.00	6.00	130.00	Open	4.11	1064.97	1064.97	0.00	0.00
3910	P-1761	344.00	6.00	130.00	Open	6.22	1059.87	1059.86	0.00	0.00
3912	P-1762	338.00	6.00	130.00	Open	1.95	1218.15	1218.15	0.00	0.00
3914	P-1763	340.00	6.00	130.00	Open	4.00	1057.27	1057.27	0.00	0.00
3916	P-1764	343.00	6.00	130.00	Open	-2.24	1051.80	1051.80	0.00	0.00
3917	P-1765	343.00	6.00	130.00	Open	6.36	1053.16	1053.16	0.00	0.00
3920	P-1766	351.00	6.00	130.00	Open	6.15	963.95	963.95	0.00	0.00
3921	P-1767	345.00	6.00	130.00	Open	0.88	1052.96	1052.96	0.00	0.00
3923	P-1768	342.00	6.00	130.00	Open	-8.94	1051.72	1051.72	0.00	0.00
3925	P-1769	343.00	6.00	130.00	Open	-0.88	1051.79	1051.79	0.00	0.00
3928	P-1770	345.00	6.00	130.00	Open	1.28	1051.74	1051.73	0.00	0.00
3931	P-1771	351.00	6.00	130.00	Open	-3.60	994.76	994.76	0.00	0.00
3933	P-1772	375.00	6.00	130.00	Open	1.23	1064.96	1064.96	0.00	0.00
3934	P-1773	384.00	6.00	130.00	Open	3.04	1062.55	1062.54	0.00	0.00
3936	P-1774	358.00	6.00	130.00	Open	-4.08	981.47	981.47	0.00	0.00
3937	P-1775	443.00	6.00	130.00	Open	2.39	1060.74	1060.74	0.00	0.00
3938	P-1776	397.00	6.00	130.00	Open	1.08	1054.24	1054.24	0.00	0.00
3940	P-1777	358.00	6.00	130.00	Open	-1.64	1052.14	1052.14	0.00	0.00
3942	P-1778	358.00	6.00	130.00	Open	4.20	1064.94	1064.93	0.00	0.00
3944	P-1779	361.00	6.00	130.00	Open	-6.05	1051.21	1051.21	0.00	0.00
3946	P-1780	361.00	6.00	130.00	Open	6.16	1062.80	1062.80	0.00	0.00
3948	P-1781	361.00	6.00	130.00	Open	4.25	994.76	994.76	0.00	0.00
3950	P-1782	368.00	6.00	130.00	Open	4.28	981.47	981.47	0.00	0.00
3951	P-1783	364.00	6.00	130.00	Open	-1.64	1056.17	1056.17	0.00	0.00
3953	P-1784	370.00	6.00	130.00	Open	4.03	1218.03	1218.03	0.00	0.00
3954	P-1785	378.00	6.00	130.00	Open	0.68	1061.38	1061.38	0.00	0.00
3956	P-1786	379.00	6.00	130.00	Open	5.70	1056.79	1056.79	0.00	0.00
3958	P-1787	457.00	6.00	130.00	Open	0.88	1062.54	1062.54	0.00	0.00
3960	P-1788	370.00	6.00	130.00	Open	-1.28	1051.74	1051.74	0.00	0.00
3962	P-1789	478.00	6.00	130.00	Open	1.84	1064.98	1064.98	0.00	0.00
3963	P-1790	385.00	6.00	130.00	Open	0.34	1059.76	1059.76	0.00	0.00
3965	P-1791	374.00	6.00	130.00	Open	-3.63	1052.13	1052.13	0.00	0.00
3967	P-1792	380.00	6.00	130.00	Open	-7.36	981.47	981.48	0.00	0.00
3969	P-1793	382.00	6.00	130.00	Open	24.40	1051.89	1051.86	0.03	0.00
3972	P-1794	379.00	6.00	130.00	Open	4.93	1056.78	1056.78	0.00	0.00
3975	P-1795	410.00	6.00	130.00	Open	2.39	1054.24	1054.24	0.00	0.00
3976	P-1796	690.00	6.00	130.00	Open	-0.28	1062.54	1062.54	0.00	0.00
3977	P-1797	397.00	6.00	130.00	Open	5.11	1064.97	1064.97	0.00	0.00
3978	P-1798	416.00	6.00	130.00	Open	3.24	1064.98	1064.98	0.00	0.00
3979	P-1799	389.00	6.00	130.00	Open	1.08	1051.73	1051.73	0.00	0.00
3982	P-1800	400.00	6.00	130.00	Open	1.35	988.98	988.98	0.00	0.00
3983	P-1801	385.00	6.00	130.00	Open	-2.84	1051.79	1051.79	0.00	0.00
3985	P-1802	389.00	6.00	130.00	Open	-6.72	981.47	981.48	0.00	0.00
3986	P-1803	387.00	6.00	130.00	Open	-1.91	1064.93	1064.93	0.00	0.00
3987	P-1804	390.00	6.00	130.00	Open	1.64	1052.54	1052.54	0.00	0.00
3989	P-1805	393.00	6.00	130.00	Open	-3.60	1059.86	1059.86	0.00	0.00
3991	P-1806	400.00	6.00	130.00	Open	2.32	1055.31	1055.31	0.00	0.00
3993	P-1807	392.00	6.00	130.00	Open	2.11	1057.59	1057.59	0.00	0.00
3995	P-1808	393.00	6.00	130.00	Open	6.29	1052.03	1052.03	0.00	0.00
3997	P-1809	397.00	6.00	130.00	Open	6.86	963.94	963.94	0.00	0.00
3999	P-1810	395.00	6.00	130.00	Open	-5.31	1051.71	1051.71	0.00	0.00
4001	P-1811	399.00	6.00	130.00	Open	-10.77	1051.85	1051.86	0.01	0.00
4003	P-1812	395.00	6.00	130.00	Open	-5.70	1051.79	1051.79	0.00	0.00
4004	P-1813	400.00	6.00	130.00	Open	-8.23	1052.64	1052.65	0.00	0.00
4006	P-1814	397.00	6.00	130.00	Open	0.88	1052.72	1052.72	0.00	0.00
4009	P-1815	401.00	6.00	130.00	Open	2.24	1053.81	1053.81	0.00	0.00
4011	P-1816	405.00	6.00	130.00	Open	2.11	1055.31	1055.31	0.00	0.00
4012	P-1817	403.00	6.00	130.00	Open	3.28	1064.93	1064.93	0.00	0.00
4013	P-1818	437.00	6.00	130.00	Open	-1.64	1052.66	1052.66	0.00	0.00
4015	P-1819	406.00	6.00	130.00	Open	7.75	981.48	981.47	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4017	P-1820	407.00	6.00	130.00	Open	-0.79	981.47	981.47	0.00	0.00
4018	P-1821	408.00	6.00	130.00	Open	6.29	1064.94	1064.93	0.00	0.00
4020	P-1822	411.00	6.00	130.00	Open	6.72	1059.77	1059.76	0.00	0.00
4021	P-1823	416.00	6.00	130.00	Open	1.46	1052.99	1052.99	0.00	0.00
4024	P-1824	446.00	6.00	130.00	Open	6.16	1052.96	1052.96	0.00	0.00
4026	P-1825	414.00	6.00	130.00	Open	1.08	1052.12	1052.12	0.00	0.00
4028	P-1826	419.00	6.00	130.00	Open	2.67	1059.86	1059.86	0.00	0.00
4029	P-1827	424.00	6.00	130.00	Open	-11.68	993.38	993.39	0.01	0.00
4030	P-1828	421.00	6.00	130.00	Open	9.39	1057.30	1057.29	0.01	0.00
4032	P-1829	426.00	6.00	130.00	Open	-2.92	1051.81	1051.81	0.00	0.00
4034	P-1830	441.00	6.00	130.00	Open	4.45	1052.53	1052.53	0.00	0.00
4035	P-1831	439.00	6.00	130.00	Open	4.49	1052.54	1052.54	0.00	0.00
4036	P-1832	436.00	6.00	130.00	Open	7.08	1053.01	1053.00	0.00	0.00
4039	P-1833	429.00	6.00	130.00	Open	-8.14	1051.80	1051.81	0.00	0.00
4041	P-1834	443.00	6.00	130.00	Open	-4.20	1051.92	1051.92	0.00	0.00
4044	P-1835	434.00	6.00	130.00	Open	2.44	993.48	993.48	0.00	0.00
4047	P-1836	503.00	6.00	130.00	Open	2.16	1052.50	1052.50	0.00	0.00
4049	P-1837	437.00	6.00	130.00	Open	7.58	1059.87	1059.87	0.00	0.00
4050	P-1838	453.00	6.00	130.00	Open	-4.96	1051.92	1051.92	0.00	0.00
4051	P-1839	449.00	6.00	130.00	Open	1.44	1063.59	1063.59	0.00	0.00
4052	P-1840	444.00	6.00	130.00	Open	1.71	1064.86	1064.86	0.00	0.00
4053	P-1841	439.00	6.00	130.00	Open	-1.03	1051.78	1051.78	0.00	0.00
4055	P-1842	454.00	6.00	130.00	Open	0.72	1216.97	1216.97	0.00	0.00
4058	P-1843	452.00	6.00	130.00	Open	2.04	1060.74	1060.74	0.00	0.00
4059	P-1844	442.00	6.00	130.00	Open	10.04	1059.75	1059.75	0.01	0.00
4060	P-1845	459.00	6.00	130.00	Open	1.28	1051.74	1051.74	0.00	0.00
4063	P-1846	445.00	6.00	130.00	Open	-6.24	1053.99	1053.99	0.00	0.00
4066	P-1847	464.00	6.00	130.00	Open	5.51	1053.85	1053.84	0.00	0.00
4067	P-1848	502.00	6.00	130.00	Open	-0.83	1056.64	1056.64	0.00	0.00
4070	P-1849	527.00	6.00	130.00	Open	-2.33	1052.09	1052.09	0.00	0.00
4072	P-1850	451.00	6.00	130.00	Open	1.39	1053.06	1053.06	0.00	0.00
4074	P-1851	461.00	6.00	130.00	Open	9.76	1053.00	1052.99	0.01	0.00
4075	P-1852	456.00	6.00	130.00	Open	0.57	1218.15	1218.15	0.00	0.00
4076	P-1853	457.00	6.00	130.00	Open	2.44	1061.38	1061.38	0.00	0.00
4079	P-1854	524.00	6.00	130.00	Open	-0.28	981.48	981.48	0.00	0.00
4081	P-1855	480.00	6.00	130.00	Open	-0.88	1051.92	1051.92	0.00	0.00
4084	P-1856	471.00	6.00	130.00	Open	-4.38	1059.76	1059.76	0.00	0.00
4086	P-1857	497.00	6.00	130.00	Open	-2.44	1061.63	1061.63	0.00	0.00
4088	P-1858	464.00	6.00	130.00	Open	9.93	1051.81	1051.81	0.01	0.00
4090	P-1859	462.00	6.00	130.00	Open	13.31	1059.77	1059.75	0.01	0.00
4091	P-1860	493.00	6.00	130.00	Open	8.34	1052.52	1052.52	0.01	0.00
4092	P-1861	626.00	6.00	130.00	Open	-0.68	1052.04	1052.04	0.00	0.00
4094	P-1862	473.00	6.00	130.00	Open	1.44	1059.01	1059.01	0.00	0.00
4096	P-1863	561.00	6.00	130.00	Open	-0.27	1064.93	1064.93	0.00	0.00
4097	P-1864	502.00	6.00	130.00	Open	2.50	1216.97	1216.97	0.00	0.00
4099	P-1865	478.00	6.00	130.00	Open	1.28	1051.80	1051.80	0.00	0.00
4101	P-1866	562.00	6.00	130.00	Open	-2.52	1053.99	1053.99	0.00	0.00
4102	P-1867	484.00	6.00	130.00	Open	2.50	1051.78	1051.78	0.00	0.00
4103	P-1868	483.00	6.00	130.00	Open	-0.28	1056.64	1056.64	0.00	0.00
4105	P-1869	613.00	6.00	130.00	Open	2.72	1059.74	1059.74	0.00	0.00
4106	P-1870	495.00	6.00	130.00	Open	-16.52	1051.30	1051.31	0.02	0.00
4108	P-1871	486.00	6.00	130.00	Open	4.20	1052.64	1052.64	0.00	0.00
4109	P-1872	531.00	6.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
4111	P-1873	487.00	6.00	130.00	Open	-1.48	1061.38	1061.38	0.00	0.00
4113	P-1874	507.00	6.00	130.00	Open	1.28	1054.15	1054.15	0.00	0.00
4115	P-1875	488.00	6.00	130.00	Open	-0.62	1059.76	1059.76	0.00	0.00
4117	P-1876	492.00	6.00	130.00	Open	0.83	1052.88	1052.88	0.00	0.00
4119	P-1877	493.00	6.00	130.00	Open	10.63	1051.77	1051.76	0.01	0.00
4121	P-1878	514.00	6.00	130.00	Open	3.20	1053.98	1053.97	0.00	0.00
4122	P-1879	502.00	6.00	130.00	Open	2.99	1053.84	1053.84	0.00	0.00
4123	P-1880	496.00	6.00	130.00	Open	-3.44	1052.72	1052.72	0.00	0.00
4125	P-1881	507.00	6.00	130.00	Open	2.04	1064.98	1064.98	0.00	0.00
4126	P-1882	507.00	6.00	130.00	Open	6.21	1057.43	1057.43	0.00	0.00
4129	P-1883	505.00	6.00	130.00	Open	-1.79	1052.37	1052.37	0.00	0.00
4131	P-1884	516.00	6.00	130.00	Open	-34.10	1061.38	1061.45	0.07	0.00
4134	P-1885	516.00	6.00	130.00	Open	-6.02	1051.71	1051.71	0.00	0.00
4135	P-1886	510.00	6.00	130.00	Open	3.92	1056.78	1056.78	0.00	0.00
4137	P-1887	518.00	6.00	130.00	Open	1.19	1064.93	1064.93	0.00	0.00
4140	P-1888	515.00	6.00	130.00	Open	-2.67	1064.93	1064.93	0.00	0.00
4141	P-1889	514.00	6.00	130.00	Open	-14.92	1052.66	1052.68	0.02	0.00
4143	P-1890	542.00	6.00	130.00	Open	-5.09	981.47	981.47	0.00	0.00
4144	P-1891	517.00	6.00	130.00	Open	2.04	1057.64	1057.64	0.00	0.00
4145	P-1892	525.00	6.00	130.00	Open	3.20	1064.82	1064.82	0.00	0.00
4147	P-1893	520.00	6.00	130.00	Open	-1.08	1061.63	1061.63	0.00	0.00
4149	P-1894	562.00	6.00	130.00	Open	2.59	1060.74	1060.74	0.00	0.00
4150	P-1895	545.00	6.00	130.00	Open	-11.61	1051.27	1051.28	0.01	0.00
4151	P-1896	523.00	6.00	130.00	Open	0.88	1051.76	1051.76	0.00	0.00
4153	P-1897	524.00	6.00	130.00	Open	0.48	1057.28	1057.28	0.00	0.00
4155	P-1898	935.00	6.00	130.00	Open	1.83	1322.92	1322.92	0.00	0.00
4158	P-1899	558.00	6.00	130.00	Open	-236.34	1057.37	1060.23	2.86	0.01
4160	P-1900	616.00	6.00	130.00	Open	2.79	1064.93	1064.93	0.00	0.00
4162	P-1901	541.00	6.00	130.00	Open	-4.52	1051.86	1051.86	0.00	0.00
4164	P-1902	605.00	6.00	130.00	Open	-12.53	1051.86	1051.87	0.01	0.00
4165	P-1903	715.00	6.00	130.00	Open	-2.81	1059.86	1059.86	0.00	0.00
4167	P-1904	541.00	6.00	130.00	Open	-1.48	994.76	994.76	0.00	0.00
4169	P-1905	545.00	6.00	130.00	Open	-0.48	1064.88	1064.88	0.00	0.00
4171	P-1906	558.00	6.00	130.00	Open	2.44	1064.82	1064.82	0.00	0.00
4172	P-1907	541.00	6.00	130.00	Open	-10.70	1051.72	1051.73	0.01	0.00
4173	P-1908	560.00	6.00	130.00	Open	1.39	1064.93	1064.93	0.00	0.00
4175	P-1909	589.00	6.00	130.00	Open	-2.44	1053.99	1053.99	0.00	0.00
4176	P-1910	553.00	6.00	130.00	Open	1.91	1057.13	1057.13	0.00	0.00
4177	P-1911	564.00	6.00	130.00	Open	1.68	1061.38	1061.38	0.00	0.00
4179	P-1912	552.00	6.00	130.00	Open	3.60	1053.00	1053.00	0.00	0.00
4181	P-1913	554.00	6.00	130.00	Open	4.32	1064.93	1064.93	0.00	0.00
4182	P-1914	548.00	6.00	130.00	Open	-2.29	1051.74	1051.74	0.00	0.00
4185	P-1915	596.00	6.00	130.00	Open	-1.64	1216.97	1216.97	0.00	0.00
4187	P-1916	557.00	6.00	130.00	Open	-1.48	1051.28	1051.28	0.00	0.00
4189	P-1917	567.00	6.00	130.00	Open	27.06	1059.58	1059.53	0.05	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4191	P-1918	603.00	6.00	130.00	Open	-55.72	1057.20	1057.42	0.21	0.00
4192	P-1919	563.00	6.00	130.00	Open	-1.88	1051.74	1051.74	0.00	0.00
4194	P-1920	557.00	6.00	130.00	Open	8.61	1064.88	1064.88	0.01	0.00
4195	P-1921	636.00	6.00	130.00	Open	-1.79	1052.64	1052.64	0.00	0.00
4197	P-1922	571.00	6.00	130.00	Open	5.71	1052.72	1052.71	0.00	0.00
4198	P-1923	561.00	6.00	130.00	Open	1.78	993.48	993.48	0.00	0.00
4199	P-1924	580.00	6.00	130.00	Open	3.55	1054.24	1054.24	0.00	0.00
4202	P-1925	601.00	6.00	130.00	Open	-21.51	1051.24	1051.27	0.04	0.00
4203	P-1926	574.00	6.00	130.00	Open	-2.95	1064.96	1064.96	0.00	0.00
4204	P-1927	596.00	6.00	130.00	Open	-22.66	1051.31	1051.35	0.04	0.00
4205	P-1928	587.00	6.00	130.00	Open	-2.89	1052.09	1052.09	0.00	0.00
4206	P-1929	591.00	6.00	130.00	Open	-19.42	1051.28	1051.31	0.03	0.00
4207	P-1930	574.00	6.00	130.00	Open	-22.20	1057.53	1057.57	0.04	0.00
4210	P-1931	576.00	6.00	130.00	Open	9.07	1051.76	1051.76	0.01	0.00
4211	P-1932	581.00	6.00	130.00	Open	-5.96	1051.80	1051.80	0.00	0.00
4213	P-1933	580.00	6.00	130.00	Open	18.32	1064.98	1064.95	0.03	0.00
4215	P-1934	630.00	6.00	130.00	Open	2.09	963.94	963.94	0.00	0.00
4216	P-1935	587.00	6.00	130.00	Open	1.56	1056.78	1056.78	0.00	0.00
4217	P-1936	598.00	6.00	130.00	Open	-234.58	1054.34	1057.37	3.02	0.01
4218	P-1937	785.00	6.00	130.00	Open	2.52	1056.78	1056.78	0.00	0.00
4220	P-1938	607.00	6.00	130.00	Open	31.78	1059.76	1059.68	0.08	0.00
4223	P-1939	613.00	6.00	130.00	Open	-2.26	1059.76	1059.76	0.00	0.00
4224	P-1940	592.00	6.00	130.00	Open	9.23	1057.29	1057.28	0.01	0.00
4225	P-1941	592.00	6.00	130.00	Open	6.57	1051.81	1051.80	0.00	0.00
4226	P-1942	596.00	6.00	130.00	Open	2.99	1062.55	1062.54	0.00	0.00
4228	P-1943	597.00	6.00	130.00	Open	-17.32	1051.79	1051.82	0.02	0.00
4229	P-1944	664.00	6.00	130.00	Open	0.78	1059.76	1059.76	0.00	0.00
4231	P-1945	614.00	6.00	130.00	Open	-2.24	1051.03	1051.03	0.00	0.00
4232	P-1946	676.00	6.00	130.00	Open	-29.46	1051.40	1051.47	0.07	0.00
4233	P-1947	610.00	6.00	130.00	Open	17.37	1064.95	1064.93	0.02	0.00
4234	P-1948	608.00	6.00	130.00	Open	-22.15	1051.82	1051.85	0.04	0.00
4235	P-1949	608.00	6.00	130.00	Open	1.28	1064.87	1064.86	0.00	0.00
4237	P-1950	620.00	6.00	130.00	Open	-0.98	1051.79	1051.79	0.00	0.00
4238	P-1951	662.00	6.00	130.00	Open	-2.38	1059.76	1059.76	0.00	0.00
4239	P-1952	613.00	6.00	130.00	Open	2.99	1063.05	1063.05	0.00	0.00
4240	P-1953	621.00	6.00	130.00	Open	-2.79	1051.98	1051.98	0.00	0.00
4241	P-1954	657.00	6.00	130.00	Open	-2.64	1051.92	1051.92	0.00	0.00
4242	P-1955	689.00	6.00	130.00	Open	-1.28	1051.84	1051.84	0.00	0.00
4245	P-1956	611.00	6.00	130.00	Open	1.64	1052.72	1052.72	0.00	0.00
4247	P-1957	623.00	6.00	130.00	Open	13.36	1053.02	1053.00	0.02	0.00
4248	P-1958	616.00	6.00	130.00	Open	2.72	1057.53	1057.53	0.00	0.00
4250	P-1959	707.00	6.00	130.00	Open	2.52	1059.76	1059.76	0.00	0.00
4251	P-1960	618.00	6.00	130.00	Open	4.40	1052.96	1052.96	0.00	0.00
4252	P-1961	624.00	6.00	130.00	Open	-1.44	1052.64	1052.64	0.00	0.00
4253	P-1962	616.00	6.00	130.00	Open	-10.50	993.37	993.38	0.01	0.00
4254	P-1963	647.00	6.00	130.00	Open	-1.48	1052.62	1052.62	0.00	0.00
4257	P-1964	620.00	6.00	130.00	Open	2.59	1054.24	1054.24	0.00	0.00
4258	P-1965	628.00	6.00	130.00	Open	13.29	1064.90	1064.88	0.02	0.00
4260	P-1966	659.00	6.00	130.00	Open	2.79	1063.13	1063.13	0.00	0.00
4262	P-1967	629.00	6.00	130.00	Open	-0.28	1056.17	1056.17	0.00	0.00
4264	P-1968	757.00	6.00	130.00	Open	-0.83	1052.10	1052.10	0.00	0.00
4265	P-1969	637.00	6.00	130.00	Open	2.44	1051.76	1051.76	0.00	0.00
4266	P-1970	639.00	6.00	130.00	Open	-5.70	1051.74	1051.74	0.00	0.00
4269	P-1971	658.00	6.00	130.00	Open	-59.04	1057.49	1057.74	0.26	0.00
4271	P-1972	684.00	6.00	130.00	Open	5.44	991.26	991.25	0.00	0.00
4272	P-1973	650.00	6.00	130.00	Open	-37.27	1061.45	1061.56	0.11	0.00
4273	P-1974	650.00	6.00	130.00	Open	17.24	991.30	991.28	0.03	0.00
4274	P-1975	752.00	6.00	130.00	Open	2.24	1063.23	1063.23	0.00	0.00
4275	P-1976	720.00	6.00	130.00	Open	7.22	1052.09	1052.09	0.01	0.00
4277	P-1977	746.00	6.00	130.00	Open	1.28	1051.98	1051.98	0.00	0.00
4279	P-1978	670.00	6.00	130.00	Open	2.64	1056.79	1056.79	0.00	0.00
4280	P-1979	847.00	6.00	130.00	Open	1.91	1061.95	1061.95	0.00	0.00
4281	P-1980	711.00	6.00	130.00	Open	0.46	993.37	993.37	0.00	0.00
4283	P-1981	662.00	6.00	130.00	Open	3.75	1064.93	1064.93	0.00	0.00
4285	P-1982	690.00	6.00	130.00	Open	-26.10	991.30	991.36	0.06	0.00
4286	P-1983	890.00	6.00	130.00	Open	29.62	1059.68	1059.58	0.10	0.00
4287	P-1984	670.00	6.00	130.00	Open	-3.44	1051.87	1051.87	0.00	0.00
4289	P-1985	692.00	6.00	130.00	Open	-0.63	1052.37	1052.37	0.00	0.00
4290	P-1986	681.00	6.00	130.00	Open	6.76	1053.71	1053.70	0.00	0.00
4291	P-1987	716.00	6.00	130.00	Open	3.52	1064.81	1064.81	0.00	0.00
4293	P-1988	681.00	6.00	130.00	Open	2.07	1322.91	1322.91	0.00	0.00
4295	P-1989	690.00	6.00	130.00	Open	13.02	1057.33	1057.31	0.02	0.00
4298	P-1990	936.00	6.00	130.00	Open	1.75	1053.00	1053.00	0.00	0.00
4300	P-1991	699.00	6.00	130.00	Open	0.28	1052.03	1052.03	0.00	0.00
4302	P-1992	711.00	6.00	130.00	Open	3.40	1053.03	1053.03	0.00	0.00
4303	P-1993	754.00	6.00	130.00	Open	2.24	1058.41	1058.41	0.00	0.00
4304	P-1994	718.00	6.00	130.00	Open	-5.31	1061.95	1061.95	0.00	0.00
4305	P-1995	697.00	6.00	130.00	Open	2.37	1059.76	1059.76	0.00	0.00
4306	P-1996	698.00	6.00	130.00	Open	-4.97	1059.86	1059.87	0.00	0.00
4307	P-1997	716.00	6.00	130.00	Open	0.91	981.47	981.47	0.00	0.00
4308	P-1998	793.00	6.00	130.00	Open	5.37	1322.92	1322.91	0.00	0.00
4310	P-1999	707.00	6.00	130.00	Open	-18.68	1051.31	1051.35	0.03	0.00
4312	P-2000	721.00	6.00	130.00	Open	15.72	1054.03	1054.00	0.02	0.00
4313	P-2001	713.00	6.00	130.00	Open	-3.17	1058.24	1058.24	0.00	0.00
4314	P-2002	898.00	6.00	130.00	Open	2.44	1059.01	1059.00	0.00	0.00
4315	P-2003	718.00	6.00	130.00	Open	-10.19	1052.65	1052.66	0.01	0.00
4316	P-2004	740.00	6.00	130.00	Open	3.64	1052.71	1052.71	0.00	0.00
4317	P-2005	737.00	6.00	130.00	Open	4.92	1053.00	1053.00	0.00	0.00
4318	P-2006	867.00	6.00	130.00	Open	-1.09	988.98	988.98	0.00	0.00
4320	P-2007	793.00	6.00	130.00	Open	5.19	1064.96	1064.96	0.00	0.00
4321	P-2008	758.00	6.00	130.00	Open	2.11	1064.96	1064.96	0.00	0.00
4322	P-2009	764.00	6.00	130.00	Open	2.32	1063.11	1063.11	0.00	0.00
4324	P-2010	832.00	6.00	130.00	Open	-0.50	1056.79	1056.79	0.00	0.00
4325	P-2011	866.00	6.00	130.00	Open	-3.85	1051.84	1051.84	0.00	0.00
4327	P-2012	745.00	6.00	130.00	Open	-1.28	1052.04	1052.04	0.00	0.00
4329	P-2013	822.00	6.00	130.00	Open	-4.12	1052.98	1052.98	0.00	0.00
4331	P-2014	791.00	6.00	130.00	Open	2.56	1056.78	1056.78	0.00	0.00
4332	P-2015	764.00	6.00	130.00	Open	9.74	1052.73	1052.72	0.01	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4333	P-2016	759.00	6.00	130.00	Open	1.44	1052.09	1052.09	0.00	0.00
4334	P-2017	760.00	6.00	130.00	Open	1.48	1052.03	1052.03	0.00	0.00
4336	P-2018	819.00	6.00	130.00	Open	-6.08	1052.98	1052.99	0.00	0.00
4337	P-2019	803.00	6.00	130.00	Open	3.21	1057.64	1057.64	0.00	0.00
4338	P-2020	778.00	6.00	130.00	Open	1.64	1053.00	1053.00	0.00	0.00
4339	P-2021	827.00	6.00	130.00	Open	-2.20	1051.82	1051.82	0.00	0.00
4341	P-2022	855.00	6.00	130.00	Open	5.19	1052.54	1052.54	0.00	0.00
4344	P-2023	999.00	6.00	130.00	Open	0.74	1322.92	1322.91	0.00	0.00
4345	P-2024	784.00	6.00	130.00	Open	-17.28	1052.68	1052.71	0.03	0.00
4346	P-2025	804.00	6.00	130.00	Open	4.60	981.48	981.47	0.00	0.00
4347	P-2026	823.00	6.00	130.00	Open	34.35	1059.87	1059.76	0.12	0.00
4348	P-2027	948.00	6.00	130.00	Open	0.54	1052.09	1052.09	0.00	0.00
4350	P-2028	810.00	6.00	130.00	Open	3.40	1052.72	1052.72	0.00	0.00
4351	P-2029	817.00	6.00	130.00	Open	0.23	1057.64	1057.64	0.00	0.00
4352	P-2030	906.00	6.00	130.00	Open	3.04	1052.99	1052.99	0.00	0.00
4353	P-2031	823.00	6.00	130.00	Open	1.99	1052.99	1052.99	0.00	0.00
4355	P-2032	924.00	6.00	130.00	Open	0.54	1057.64	1057.64	0.00	0.00
4356	P-2033	827.00	6.00	130.00	Open	11.35	1057.27	1057.26	0.02	0.00
4359	P-2034	1038.00	6.00	130.00	Open	22.44	1051.86	1051.80	0.07	0.00
4361	P-2035	865.00	6.00	130.00	Open	-7.80	1053.99	1054.00	0.01	0.00
4362	P-2036	838.00	6.00	130.00	Open	-1.08	1052.07	1052.07	0.00	0.00
4364	P-2037	864.00	6.00	130.00	Open	12.31	1057.29	1057.27	0.02	0.00
4366	P-2038	854.00	6.00	130.00	Open	19.67	1051.80	1051.75	0.04	0.00
4367	P-2039	921.00	6.00	130.00	Open	-0.63	1056.91	1056.91	0.00	0.00
4368	P-2040	860.00	6.00	130.00	Open	2.55	1053.06	1053.06	0.00	0.00
4369	P-2041	866.00	6.00	130.00	Open	0.23	1052.99	1052.99	0.00	0.00
4371	P-2042	913.00	6.00	130.00	Open	0.43	1064.93	1064.93	0.00	0.00
4372	P-2043	881.00	6.00	130.00	Open	14.25	1064.92	1064.90	0.02	0.00
4373	P-2044	872.00	6.00	130.00	Open	-0.23	1052.99	1052.99	0.00	0.00
4375	P-2045	876.00	6.00	130.00	Open	-3.45	1064.88	1064.88	0.00	0.00
4376	P-2046	889.00	6.00	130.00	Open	0.28	1051.73	1051.73	0.00	0.00
4378	P-2047	894.00	6.00	130.00	Open	1.48	1057.43	1057.43	0.00	0.00
4381	P-2048	924.00	6.00	130.00	Open	3.02	1052.99	1052.99	0.00	0.00
4383	P-2049	1066.00	6.00	130.00	Open	-7.32	1057.27	1057.28	0.01	0.00
4385	P-2050	929.00	6.00	130.00	Open	-1.34	1056.91	1056.91	0.00	0.00
4387	P-2051	905.00	6.00	130.00	Open	10.00	1057.26	1057.24	0.01	0.00
4388	P-2052	905.00	6.00	130.00	Open	12.87	1057.31	1057.29	0.02	0.00
4389	P-2053	954.00	6.00	130.00	Open	-13.70	1051.21	1051.24	0.03	0.00
4390	P-2054	950.00	6.00	130.00	Open	-13.35	1051.27	1051.30	0.02	0.00
4391	P-2055	970.00	6.00	130.00	Open	7.32	1062.81	1062.80	0.01	0.00
4393	P-2056	985.00	6.00	130.00	Open	2.99	1055.83	1055.83	0.00	0.00
4394	P-2057	923.00	6.00	130.00	Open	7.12	1056.78	1056.78	0.01	0.00
4397	P-2058	989.00	6.00	130.00	Open	2.84	1062.79	1062.79	0.00	0.00
4398	P-2059	971.00	6.00	130.00	Open	-2.44	1051.74	1051.74	0.00	0.00
4400	P-2060	999.00	6.00	130.00	Open	4.40	1053.16	1053.16	0.00	0.00
4401	P-2061	1105.00	6.00	130.00	Open	2.70	1052.09	1052.09	0.00	0.00
4402	P-2062	945.00	6.00	130.00	Open	6.79	1064.88	1064.87	0.01	0.00
4404	P-2063	955.00	6.00	130.00	Open	13.35	1051.80	1051.78	0.02	0.00
4405	P-2064	957.00	6.00	130.00	Open	0.38	1052.99	1052.99	0.00	0.00
4406	P-2065	999.00	6.00	130.00	Open	-0.38	1052.99	1052.99	0.00	0.00
4408	P-2066	986.00	6.00	130.00	Open	4.05	1057.43	1057.43	0.00	0.00
4409	P-2067	1015.00	6.00	130.00	Open	-2.84	1052.03	1052.03	0.00	0.00
4411	P-2068	994.00	6.00	130.00	Open	4.63	1064.87	1064.87	0.00	0.00
4412	P-2069	1121.00	6.00	130.00	Open	-2.92	1053.99	1054.00	0.00	0.00
4414	P-2070	998.00	6.00	130.00	Open	-1.70	1056.91	1056.91	0.00	0.00
4416	P-2071	1024.00	6.00	130.00	Open	35.91	1052.62	1052.46	0.16	0.00
4417	P-2072	1039.00	6.00	130.00	Open	-1.34	1052.99	1052.99	0.00	0.00
4418	P-2073	1058.00	6.00	130.00	Open	-5.28	1054.00	1054.00	0.00	0.00
4419	P-2074	1100.00	6.00	130.00	Open	2.07	1052.53	1052.53	0.00	0.00
4421	P-2075	1027.00	6.00	130.00	Open	-3.27	1052.13	1052.13	0.00	0.00
4423	P-2076	1036.00	6.00	130.00	Open	9.19	1052.11	1052.09	0.01	0.00
4425	P-2077	1115.00	6.00	130.00	Open	6.75	1052.55	1052.54	0.01	0.00
4426	P-2078	1146.00	6.00	130.00	Open	-2.73	1051.74	1051.74	0.00	0.00
4427	P-2079	1062.00	6.00	130.00	Open	-1.31	1052.13	1052.13	0.00	0.00
4428	P-2080	1071.00	6.00	130.00	Open	7.10	993.44	993.43	0.01	0.00
4429	P-2081	1349.00	6.00	130.00	Open	2.12	1052.04	1052.03	0.00	0.00
4430	P-2082	1099.00	6.00	130.00	Open	1.44	1064.93	1064.93	0.00	0.00
4431	P-2083	1269.00	6.00	130.00	Open	1.24	1068.85	1068.85	0.00	0.00
4434	P-2084	1309.00	6.00	130.00	Open	-3.16	1322.91	1322.91	0.00	0.00
4435	P-2085	1341.00	6.00	130.00	Open	1.59	1064.93	1064.93	0.00	0.00
4436	P-2086	1183.00	6.00	130.00	Open	3.52	1064.95	1064.94	0.00	0.00
4437	P-2087	1215.00	6.00	130.00	Open	3.63	1052.54	1052.53	0.00	0.00
4438	P-2088	1200.00	6.00	130.00	Open	3.75	1052.99	1052.99	0.00	0.00
4440	P-2089	1313.00	6.00	130.00	Open	-61.61	1057.74	1058.30	0.56	0.00
4442	P-2090	1412.00	6.00	130.00	Open	0.69	1322.91	1322.91	0.00	0.00
4444	P-2091	1641.00	6.00	130.00	Open	-0.60	1218.03	1218.03	0.00	0.00
4445	P-2092	2157.00	6.00	130.00	Open	8.12	991.28	991.26	0.02	0.00
4446	P-2093	1966.00	6.00	130.00	Open	-13.71	993.39	993.44	0.05	0.00
4448	P-2094	1.00	6.10	130.00	Open	-0.26	1322.92	1322.92	0.00	0.00
4450	P-2095	1.00	6.10	130.00	Open	0.48	1058.25	1058.25	0.00	0.00
4452	P-2096	1.00	6.10	130.00	Open	0.48	1057.97	1057.97	0.00	0.00
4455	P-2097	2.00	6.10	130.00	Open	-0.26	1322.96	1322.96	0.00	0.00
4457	P-2098	2.00	6.10	130.00	Open	0.28	1056.06	1056.06	0.00	0.00
4460	P-2099	2.00	6.10	130.00	Open	-1.93	1216.97	1216.97	0.00	0.00
4463	P-2100	2.00	6.10	130.00	Open	0.48	1064.94	1064.94	0.00	0.00
4465	P-2101	3.00	6.10	130.00	Open	0.48	1051.80	1051.80	0.00	0.00
4467	P-2102	3.00	6.10	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
4469	P-2103	3.00	6.10	130.00	Open	-0.48	1051.83	1051.83	0.00	0.00
4472	P-2104	3.00	6.10	130.00	Open	-0.48	1059.99	1059.99	0.00	0.00
4475	P-2105	3.00	6.10	130.00	Open	0.48	1052.14	1052.14	0.00	0.00
4477	P-2106	3.00	6.10	130.00	Open	0.88	1051.74	1051.74	0.00	0.00
4480	P-2107	3.00	6.10	130.00	Open	0.68	1057.74	1057.74	0.00	0.00
4482	P-2108	3.00	6.10	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
4484	P-2109	3.00	6.10	130.00	Open	-0.48	1051.84	1051.84	0.00	0.00
4487	P-2110	3.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4489	P-2111	3.00	6.10	130.00	Open	0.68	1056.83	1056.83	0.00	0.00
4491	P-2112	3.00	6.10	130.00	Open	0.28	1052.13	1052.13	0.00	0.00
4493	P-2113	3.00	6.10	130.00	Open	0.08	981.47	981.47	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4495	P-2114	3.00	6.10	130.00	Open	0.08	1064.98	1064.98	0.00	0.00
4497	P-2115	4.00	6.10	130.00	Open	0.08	1052.24	1052.24	0.00	0.00
4499	P-2116	4.00	6.10	130.00	Open	1.28	1051.91	1051.91	0.00	0.00
4502	P-2117	4.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
4504	P-2118	4.00	6.10	130.00	Open	-1.68	1053.01	1053.01	0.00	0.00
4507	P-2119	4.00	6.10	130.00	Open	2.49	1051.74	1051.74	0.00	0.00
4510	P-2120	4.00	6.10	130.00	Open	-0.48	1063.62	1063.62	0.00	0.00
4512	P-2121	4.00	6.10	130.00	Open	0.88	1051.76	1051.76	0.00	0.00
4515	P-2122	4.00	6.10	130.00	Open	0.88	1051.74	1051.74	0.00	0.00
4517	P-2123	4.00	6.10	130.00	Open	0.48	1057.42	1057.42	0.00	0.00
4519	P-2124	4.00	6.10	130.00	Open	0.40	1322.92	1322.92	0.00	0.00
4521	P-2125	4.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
4523	P-2126	4.00	6.10	130.00	Open	0.08	1051.98	1051.98	0.00	0.00
4526	P-2127	4.00	6.10	130.00	Open	-0.28	1064.02	1064.02	0.00	0.00
4528	P-2128	4.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4531	P-2129	4.00	6.10	130.00	Open	-0.08	1052.99	1052.99	0.00	0.00
4533	P-2130	4.00	6.10	130.00	Open	0.08	1064.95	1064.95	0.00	0.00
4535	P-2131	4.00	6.10	130.00	Open	0.28	1051.78	1051.78	0.00	0.00
4537	P-2132	4.00	6.10	130.00	Open	0.68	981.47	981.47	0.00	0.00
4539	P-2133	4.00	6.10	130.00	Open	0.28	1053.01	1053.01	0.00	0.00
4542	P-2134	4.00	6.10	130.00	Open	0.11	1322.91	1322.91	0.00	0.00
4545	P-2135	4.00	6.10	130.00	Open	0.88	1052.09	1052.09	0.00	0.00
4547	P-2136	4.00	6.10	130.00	Open	-0.28	1053.00	1053.00	0.00	0.00
4550	P-2137	4.00	6.10	130.00	Open	0.08	1051.73	1051.73	0.00	0.00
4553	P-2138	4.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
4555	P-2139	4.00	6.10	130.00	Open	0.08	1056.64	1056.64	0.00	0.00
4557	P-2140	4.00	6.10	130.00	Open	-0.48	1051.92	1051.92	0.00	0.00
4559	P-2141	4.00	6.10	130.00	Open	-0.20	1218.02	1218.02	0.00	0.00
4562	P-2142	4.00	6.10	130.00	Open	-0.88	1059.74	1059.74	0.00	0.00
4564	P-2143	4.00	6.10	130.00	Open	-0.08	1051.83	1051.83	0.00	0.00
4567	P-2144	4.00	6.10	130.00	Open	0.28	1062.04	1062.04	0.00	0.00
4569	P-2145	4.00	6.10	130.00	Open	0.08	1052.24	1052.24	0.00	0.00
4572	P-2146	4.00	6.10	130.00	Open	-1.08	1052.99	1052.99	0.00	0.00
4574	P-2147	4.00	6.10	130.00	Open	0.48	1052.99	1052.99	0.00	0.00
4577	P-2148	4.00	6.10	130.00	Open	1.08	1052.06	1052.06	0.00	0.00
4580	P-2149	4.00	6.10	130.00	Open	1.28	1053.00	1053.00	0.00	0.00
4583	P-2150	4.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4585	P-2151	4.00	6.10	130.00	Open	0.48	1052.97	1052.97	0.00	0.00
4587	P-2152	4.00	6.10	130.00	Open	0.08	1052.00	1052.00	0.00	0.00
5068	P-2153	7.00	6.10	130.00	Open	0.48	981.48	981.48	0.00	0.00
5071	P-2154	7.00	6.10	130.00	Open	0.08	1062.19	1062.19	0.00	0.00
5073	P-2155	7.00	6.10	130.00	Open	2.09	1052.70	1052.70	0.00	0.00
5075	P-2156	7.00	6.10	130.00	Open	-0.28	1052.18	1052.18	0.00	0.00
5077	P-2157	7.00	6.10	130.00	Open	0.28	1064.93	1064.93	0.00	0.00
5079	P-2158	7.00	6.10	130.00	Open	0.08	1052.84	1052.84	0.00	0.00
5081	P-2159	7.00	6.10	130.00	Open	0.48	1052.12	1052.12	0.00	0.00
5083	P-2160	7.00	6.10	130.00	Open	-0.08	1064.92	1064.92	0.00	0.00
5085	P-2161	7.00	6.10	130.00	Open	0.48	1051.71	1051.71	0.00	0.00
5087	P-2162	7.00	6.10	130.00	Open	0.08	1052.73	1052.73	0.00	0.00
5089	P-2163	7.00	6.10	130.00	Open	0.48	1056.79	1056.79	0.00	0.00
5091	P-2164	7.00	6.10	130.00	Open	-0.48	1063.59	1063.59	0.00	0.00
5093	P-2165	7.00	6.10	130.00	Open	0.08	1057.84	1057.84	0.00	0.00
5096	P-2166	7.00	6.10	130.00	Open	0.48	1052.72	1052.72	0.00	0.00
5098	P-2167	7.00	6.10	130.00	Open	0.48	1052.93	1052.93	0.00	0.00
5100	P-2168	7.00	6.10	130.00	Open	-0.08	1052.71	1052.71	0.00	0.00
5102	P-2169	7.00	6.10	130.00	Open	0.68	981.48	981.48	0.00	0.00
5105	P-2170	7.00	6.10	130.00	Open	0.48	1051.84	1051.84	0.00	0.00
5107	P-2171	7.00	6.10	130.00	Open	-0.48	1054.25	1054.25	0.00	0.00
5109	P-2172	9.00	6.10	130.00	Open	0.08	1059.16	1059.16	0.00	0.00
5111	P-2173	7.00	6.10	130.00	Open	0.68	1052.99	1052.99	0.00	0.00
5113	P-2174	7.00	6.10	130.00	Open	0.88	1052.13	1052.13	0.00	0.00
5115	P-2175	7.00	6.10	130.00	Open	-0.48	1052.72	1052.72	0.00	0.00
5117	P-2176	7.00	6.10	130.00	Open	-0.08	1061.12	1061.12	0.00	0.00
5119	P-2177	7.00	6.10	130.00	Open	0.28	1053.07	1053.07	0.00	0.00
5122	P-2178	7.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
5125	P-2179	7.00	6.10	130.00	Open	-0.08	1061.12	1061.12	0.00	0.00
5127	P-2180	7.00	6.10	130.00	Open	-0.08	1061.12	1061.12	0.00	0.00
5129	P-2181	7.00	6.10	130.00	Open	-0.28	1063.13	1063.13	0.00	0.00
5131	P-2182	7.00	6.10	130.00	Open	0.48	1062.54	1062.54	0.00	0.00
5133	P-2183	7.00	6.10	130.00	Open	-0.28	1061.13	1061.13	0.00	0.00
5135	P-2184	7.00	6.10	130.00	Open	0.08	1054.37	1054.37	0.00	0.00
5137	P-2185	7.00	6.10	130.00	Open	0.08	1057.28	1057.28	0.00	0.00
5140	P-2186	7.00	6.10	130.00	Open	-0.08	1057.64	1057.64	0.00	0.00
5142	P-2187	7.00	6.10	130.00	Open	-0.08	1054.24	1054.24	0.00	0.00
5144	P-2188	7.00	6.10	130.00	Open	0.08	1053.23	1053.23	0.00	0.00
5146	P-2189	7.00	6.10	130.00	Open	0.68	1052.88	1052.88	0.00	0.00
5148	P-2190	7.00	6.10	130.00	Open	0.88	1052.65	1052.65	0.00	0.00
5150	P-2191	7.00	6.10	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
5153	P-2192	7.00	6.10	130.00	Open	0.88	963.94	963.94	0.00	0.00
5156	P-2193	7.00	6.10	130.00	Open	-0.08	1064.81	1064.81	0.00	0.00
5159	P-2194	7.00	6.10	130.00	Open	0.48	1053.00	1053.00	0.00	0.00
5161	P-2195	7.00	6.10	130.00	Open	0.28	1052.54	1052.54	0.00	0.00
5164	P-2196	7.00	6.10	130.00	Open	-0.08	1064.81	1064.81	0.00	0.00
5166	P-2197	7.00	6.10	130.00	Open	0.08	1052.54	1052.54	0.00	0.00
5169	P-2198	7.00	6.10	130.00	Open	-0.08	1052.21	1052.21	0.00	0.00
5171	P-2199	7.00	6.10	130.00	Open	-0.48	1064.93	1064.93	0.00	0.00
5173	P-2200	7.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
5175	P-2201	7.00	6.10	130.00	Open	-0.08	1061.13	1061.13	0.00	0.00
5177	P-2202	7.00	6.10	130.00	Open	0.08	1053.01	1053.01	0.00	0.00
5179	P-2203	7.00	6.10	130.00	Open	-0.48	1053.70	1053.70	0.00	0.00
5181	P-2204	7.00	6.10	130.00	Open	0.68	1051.83	1051.83	0.00	0.00
5183	P-2205	7.00	6.10	130.00	Open	0.88	1056.79	1056.79	0.00	0.00
5186	P-2206	7.00	6.10	130.00	Open	-0.26	1322.93	1322.93	0.00	0.00
5188	P-2207	7.00	6.10	130.00	Open	0.08	1052.88	1052.88	0.00	0.00
5190	P-2208	7.00	6.10	130.00	Open	1.28	1054.00	1054.00	0.00	0.00
5192	P-2209	7.00	6.10	130.00	Open	0.88	1052.96	1052.96	0.00	0.00
5194	P-2210	7.00	6.10	130.00	Open	-1.88	1059.68	1059.68	0.00	0.00
5196	P-2211	7.00	6.10	130.00	Open	0.08	1062.64	1062.64	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5198	P-2212	7.00	6.10	130.00	Open	0.08	1064.94	1064.94	0.00	0.00
5200	P-2213	7.00	6.10	130.00	Open	0.88	1057.28	1057.28	0.00	0.00
5203	P-2214	7.00	6.10	130.00	Open	0.88	1052.54	1052.54	0.00	0.00
5205	P-2215	7.00	6.10	130.00	Open	0.28	963.95	963.95	0.00	0.00
5207	P-2216	7.00	6.10	130.00	Open	0.88	1064.93	1064.93	0.00	0.00
5209	P-2217	7.00	6.10	130.00	Open	0.28	1053.02	1053.02	0.00	0.00
5211	P-2218	7.00	6.10	130.00	Open	0.48	1052.99	1052.99	0.00	0.00
5214	P-2219	7.00	6.10	130.00	Open	0.08	1052.20	1052.20	0.00	0.00
5217	P-2220	7.00	6.10	130.00	Open	-1.08	1054.25	1054.25	0.00	0.00
5220	P-2221	7.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
5222	P-2222	7.00	6.10	130.00	Open	1.48	1057.61	1057.61	0.00	0.00
5225	P-2223	7.00	6.10	130.00	Open	-1.08	981.49	981.49	0.00	0.00
5228	P-2224	7.00	6.10	130.00	Open	0.08	1057.31	1057.31	0.00	0.00
5231	P-2225	7.00	6.10	130.00	Open	-0.08	1056.74	1056.74	0.00	0.00
5233	P-2226	7.00	6.10	130.00	Open	0.28	1052.55	1052.55	0.00	0.00
5235	P-2227	7.00	6.10	130.00	Open	0.68	1053.28	1053.28	0.00	0.00
5238	P-2228	7.00	6.10	130.00	Open	-0.28	1053.98	1053.98	0.00	0.00
5241	P-2229	7.00	6.10	130.00	Open	1.88	1056.80	1056.80	0.00	0.00
5244	P-2230	7.00	6.10	130.00	Open	-0.20	1217.47	1217.47	0.00	0.00
5246	P-2231	7.00	6.10	130.00	Open	0.48	1051.86	1051.86	0.00	0.00
5249	P-2232	7.00	6.10	130.00	Open	0.48	1061.45	1061.45	0.00	0.00
5251	P-2233	7.00	6.10	130.00	Open	-0.28	1053.16	1053.16	0.00	0.00
5253	P-2234	7.00	6.10	130.00	Open	-0.08	1062.69	1062.69	0.00	0.00
5255	P-2235	7.00	6.10	130.00	Open	-0.20	1217.77	1217.77	0.00	0.00
5258	P-2236	7.00	6.10	130.00	Open	0.63	1218.03	1218.03	0.00	0.00
5260	P-2237	7.00	6.10	130.00	Open	0.68	1051.81	1051.81	0.00	0.00
5262	P-2238	7.00	6.10	130.00	Open	-0.11	1322.94	1322.94	0.00	0.00
5264	P-2239	7.00	6.10	130.00	Open	-0.08	1053.00	1053.00	0.00	0.00
5266	P-2240	7.00	6.10	130.00	Open	1.08	1052.79	1052.79	0.00	0.00
5268	P-2241	7.00	6.10	130.00	Open	-0.48	1053.30	1053.30	0.00	0.00
5270	P-2242	7.00	6.10	130.00	Open	0.48	1052.02	1052.02	0.00	0.00
5273	P-2243	7.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
5275	P-2244	7.00	6.10	130.00	Open	0.68	1057.57	1057.57	0.00	0.00
5278	P-2245	7.00	6.10	130.00	Open	0.68	1056.92	1056.92	0.00	0.00
5280	P-2246	7.00	6.10	130.00	Open	0.81	1218.03	1218.03	0.00	0.00
5283	P-2247	7.00	6.10	130.00	Open	-0.48	1061.13	1061.13	0.00	0.00
5285	P-2248	7.00	6.10	130.00	Open	0.28	1053.92	1053.92	0.00	0.00
5287	P-2249	7.00	6.10	130.00	Open	-0.20	1216.49	1216.49	0.00	0.00
5289	P-2250	7.00	6.10	130.00	Open	0.28	1057.53	1057.53	0.00	0.00
5291	P-2251	7.00	6.10	130.00	Open	0.08	1057.28	1057.28	0.00	0.00
5294	P-2252	7.00	6.10	130.00	Open	0.48	1052.09	1052.09	0.00	0.00
5296	P-2253	7.00	6.10	130.00	Open	0.48	1059.15	1059.15	0.00	0.00
5298	P-2254	7.00	6.10	130.00	Open	-0.08	1053.03	1053.03	0.00	0.00
5301	P-2255	7.00	6.10	130.00	Open	0.48	1059.86	1059.86	0.00	0.00
5303	P-2256	8.00	6.10	130.00	Open	-0.88	1058.34	1058.34	0.00	0.00
5306	P-2257	7.00	6.10	130.00	Open	0.08	1055.40	1055.40	0.00	0.00
5788	P-2258	9.00	6.10	130.00	Open	0.48	1053.99	1053.99	0.00	0.00
5790	P-2259	9.00	6.10	130.00	Open	1.48	1052.31	1052.31	0.00	0.00
5792	P-2260	9.00	6.10	130.00	Open	0.28	1052.49	1052.49	0.00	0.00
5795	P-2261	9.00	6.10	130.00	Open	-0.48	1063.11	1063.11	0.00	0.00
5798	P-2262	9.00	6.10	130.00	Open	-0.08	1056.91	1056.91	0.00	0.00
5801	P-2263	9.00	6.10	130.00	Open	0.68	1052.87	1052.87	0.00	0.00
5804	P-2264	9.00	6.10	130.00	Open	-0.20	1218.43	1218.43	0.00	0.00
5806	P-2265	9.00	6.10	130.00	Open	-0.28	1056.78	1056.78	0.00	0.00
5808	P-2266	9.00	6.10	130.00	Open	-0.08	1052.45	1052.45	0.00	0.00
5810	P-2267	9.00	6.10	130.00	Open	0.29	993.48	993.48	0.00	0.00
5812	P-2268	9.00	6.10	130.00	Open	0.48	1061.38	1061.38	0.00	0.00
5814	P-2269	9.00	6.10	130.00	Open	0.48	1052.33	1052.33	0.00	0.00
5817	P-2270	9.00	6.10	130.00	Open	-0.28	1059.77	1059.77	0.00	0.00
5819	P-2271	9.00	6.10	130.00	Open	0.88	1061.19	1061.19	0.00	0.00
5821	P-2272	9.00	6.10	130.00	Open	0.68	981.49	981.49	0.00	0.00
5823	P-2273	9.00	6.10	130.00	Open	0.88	1052.79	1052.79	0.00	0.00
5825	P-2274	9.00	6.10	130.00	Open	-0.08	1059.87	1059.87	0.00	0.00
5827	P-2275	9.00	6.10	130.00	Open	0.28	1052.35	1052.35	0.00	0.00
5830	P-2276	9.00	6.10	130.00	Open	1.08	1052.68	1052.68	0.00	0.00
5832	P-2277	9.00	6.10	130.00	Open	0.48	1061.63	1061.63	0.00	0.00
5834	P-2278	9.00	6.10	130.00	Open	0.08	1057.35	1057.35	0.00	0.00
5837	P-2279	9.00	6.10	130.00	Open	-0.08	1059.87	1059.87	0.00	0.00
5839	P-2280	9.00	6.10	130.00	Open	2.09	1051.74	1051.74	0.00	0.00
5842	P-2281	9.00	6.10	130.00	Open	0.28	1052.98	1052.98	0.00	0.00
5844	P-2282	9.00	6.10	130.00	Open	-0.48	1064.82	1064.82	0.00	0.00
5846	P-2283	9.00	6.10	130.00	Open	-0.08	1064.61	1064.61	0.00	0.00
5848	P-2284	9.00	6.10	130.00	Open	-0.20	1218.50	1218.50	0.00	0.00
5850	P-2285	9.00	6.10	130.00	Open	0.48	1051.74	1051.74	0.00	0.00
5852	P-2286	9.00	6.10	130.00	Open	-1.88	1064.82	1064.82	0.00	0.00
5855	P-2287	9.00	6.10	130.00	Open	0.88	1054.15	1054.15	0.00	0.00
5857	P-2288	9.00	6.10	130.00	Open	0.48	1053.02	1053.02	0.00	0.00
5859	P-2289	9.00	6.10	130.00	Open	0.20	1218.13	1218.13	0.00	0.00
5861	P-2290	9.00	6.10	130.00	Open	-0.28	1057.28	1057.28	0.00	0.00
5864	P-2291	9.00	6.10	130.00	Open	0.68	1052.66	1052.66	0.00	0.00
5866	P-2292	9.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5868	P-2293	9.00	6.10	130.00	Open	0.48	1054.67	1054.67	0.00	0.00
5871	P-2294	9.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5873	P-2295	9.00	6.10	130.00	Open	0.08	1051.82	1051.82	0.00	0.00
5875	P-2296	9.00	6.10	130.00	Open	1.68	1057.43	1057.43	0.00	0.00
5877	P-2297	9.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5880	P-2298	9.00	6.10	130.00	Open	-0.20	1218.55	1218.55	0.00	0.00
5882	P-2299	9.00	6.10	130.00	Open	-0.48	1062.54	1062.54	0.00	0.00
5884	P-2300	9.00	6.10	130.00	Open	0.08	1058.64	1058.64	0.00	0.00
5886	P-2301	9.00	6.10	130.00	Open	-0.20	1218.02	1218.02	0.00	0.00
5888	P-2302	9.00	6.10	130.00	Open	-0.20	1218.10	1218.10	0.00	0.00
5890	P-2303	9.00	6.10	130.00	Open	0.08	1058.78	1058.78	0.00	0.00
5892	P-2304	9.00	6.10	130.00	Open	-0.48	1052.71	1052.71	0.00	0.00
5894	P-2305	9.00	6.10	130.00	Open	-0.48	1059.76	1059.76	0.00	0.00
5896	P-2306	9.00	6.10	130.00	Open	0.08	1052.06	1052.06	0.00	0.00
5899	P-2307	9.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5901	P-2308	9.00	6.10	130.00	Open	0.48	1056.39	1056.39	0.00	0.00
5903	P-2309	10.00	6.10	130.00	Open	-0.68	1061.12	1061.12	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5906	P-2310	9.00	6.10	130.00	Open	2.49	1052.52	1052.52	0.00	0.00
5908	P-2311	9.00	6.10	130.00	Open	-0.20	1218.38	1218.38	0.00	0.00
5910	P-2312	9.00	6.10	130.00	Open	0.20	1216.70	1216.70	0.00	0.00
5912	P-2313	10.00	6.10	130.00	Open	0.29	1218.74	1218.74	0.00	0.00
5914	P-2314	10.00	6.10	130.00	Open	0.20	1217.91	1217.91	0.00	0.00
5916	P-2315	10.00	6.10	130.00	Open	-0.20	1218.68	1218.68	0.00	0.00
5918	P-2316	10.00	6.10	130.00	Open	0.88	1057.97	1057.97	0.00	0.00
5921	P-2317	10.00	6.10	130.00	Open	-0.20	1218.23	1218.23	0.00	0.00
5923	P-2318	10.00	6.10	130.00	Open	-0.68	1051.82	1051.82	0.00	0.00
5926	P-2319	10.00	6.10	130.00	Open	0.28	1057.27	1057.27	0.00	0.00
5928	P-2320	10.00	6.10	130.00	Open	-0.20	1218.96	1218.96	0.00	0.00
5930	P-2321	10.00	6.10	130.00	Open	0.28	1051.78	1051.78	0.00	0.00
5932	P-2322	10.00	6.10	130.00	Open	0.88	1054.42	1054.42	0.00	0.00
5935	P-2323	10.00	6.10	130.00	Open	0.08	1058.63	1058.63	0.00	0.00
5937	P-2324	10.00	6.10	130.00	Open	0.08	1057.97	1057.97	0.00	0.00
5940	P-2325	10.00	6.10	130.00	Open	0.48	1051.96	1051.96	0.00	0.00
5943	P-2326	10.00	6.10	130.00	Open	0.48	1057.97	1057.97	0.00	0.00
5946	P-2327	10.00	6.10	130.00	Open	0.29	1217.30	1217.30	0.00	0.00
5948	P-2328	10.00	6.10	130.00	Open	-0.20	1219.00	1219.00	0.00	0.00
5950	P-2329	10.00	6.10	130.00	Open	0.48	1051.81	1051.81	0.00	0.00
5952	P-2330	10.00	6.10	130.00	Open	0.48	981.48	981.48	0.00	0.00
5954	P-2331	10.00	6.10	130.00	Open	0.08	1057.24	1057.24	0.00	0.00
5956	P-2332	10.00	6.10	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
5958	P-2333	10.00	6.10	130.00	Open	0.08	963.95	963.95	0.00	0.00
5960	P-2334	10.00	6.10	130.00	Open	-0.68	1053.97	1053.97	0.00	0.00
5962	P-2335	10.00	6.10	130.00	Open	-0.20	1218.32	1218.32	0.00	0.00
5964	P-2336	10.00	6.10	130.00	Open	-0.26	1322.91	1322.91	0.00	0.00
5966	P-2337	10.00	6.10	130.00	Open	-0.28	1064.86	1064.86	0.00	0.00
5968	P-2338	10.00	6.10	130.00	Open	0.48	1052.86	1052.86	0.00	0.00
5971	P-2339	10.00	6.10	130.00	Open	0.20	1218.60	1218.60	0.00	0.00
5973	P-2340	10.00	6.10	130.00	Open	-0.37	1218.85	1218.85	0.00	0.00
5975	P-2341	10.00	6.10	130.00	Open	0.48	1052.86	1052.86	0.00	0.00
5978	P-2342	10.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5980	P-2343	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5982	P-2344	10.00	6.10	130.00	Open	0.08	1052.21	1052.21	0.00	0.00
5985	P-2345	10.00	6.10	130.00	Open	-0.20	1218.60	1218.60	0.00	0.00
5987	P-2346	10.00	6.10	130.00	Open	0.88	1052.36	1052.36	0.00	0.00
5990	P-2347	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5992	P-2348	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5994	P-2349	10.00	6.10	130.00	Open	-0.20	1218.61	1218.61	0.00	0.00
5996	P-2350	10.00	6.10	130.00	Open	0.68	1052.25	1052.25	0.00	0.00
5998	P-2351	10.00	6.10	130.00	Open	-0.20	1218.62	1218.62	0.00	0.00
6000	P-2352	10.00	6.10	130.00	Open	0.68	1052.38	1052.38	0.00	0.00
6003	P-2353	10.00	6.10	130.00	Open	0.08	1055.82	1055.82	0.00	0.00
6005	P-2354	10.00	6.10	130.00	Open	-0.28	1052.72	1052.72	0.00	0.00
6007	P-2355	10.00	6.10	130.00	Open	0.48	1062.25	1062.25	0.00	0.00
6009	P-2356	10.00	6.10	130.00	Open	0.08	1057.30	1057.30	0.00	0.00
6012	P-2357	10.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
6014	P-2358	10.00	6.10	130.00	Open	0.08	1057.64	1057.64	0.00	0.00
6016	P-2359	10.00	6.10	130.00	Open	-0.08	1059.75	1059.75	0.00	0.00
6018	P-2360	10.00	6.10	130.00	Open	0.08	1052.88	1052.88	0.00	0.00
6021	P-2361	10.00	6.10	130.00	Open	0.28	1052.37	1052.37	0.00	0.00
6023	P-2362	10.00	6.10	130.00	Open	0.88	1054.10	1054.10	0.00	0.00
6025	P-2363	10.00	6.10	130.00	Open	0.48	1056.92	1056.92	0.00	0.00
6028	P-2364	10.00	6.10	130.00	Open	0.28	1052.09	1052.09	0.00	0.00
6030	P-2365	10.00	6.10	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
6033	P-2366	10.00	6.10	130.00	Open	0.28	1064.88	1064.88	0.00	0.00
6035	P-2367	10.00	6.10	130.00	Open	0.28	1052.41	1052.41	0.00	0.00
6037	P-2368	10.00	6.10	130.00	Open	-0.48	1057.67	1057.67	0.00	0.00
6040	P-2369	10.00	6.10	130.00	Open	0.88	1052.72	1052.72	0.00	0.00
6043	P-2370	10.00	6.10	130.00	Open	-0.68	1064.94	1064.94	0.00	0.00
6046	P-2371	10.00	6.10	130.00	Open	-0.28	1061.88	1061.88	0.00	0.00
6049	P-2372	10.00	6.10	130.00	Open	0.68	1052.86	1052.86	0.00	0.00
6051	P-2373	10.00	6.10	130.00	Open	1.88	1057.63	1057.63	0.00	0.00
6054	P-2374	10.00	6.10	130.00	Open	0.48	1052.74	1052.74	0.00	0.00
6057	P-2375	10.00	6.10	130.00	Open	0.08	1052.00	1052.00	0.00	0.00
6060	P-2376	10.00	6.10	130.00	Open	-0.63	988.98	988.98	0.00	0.00
6063	P-2377	10.00	6.10	130.00	Open	-0.20	1217.75	1217.75	0.00	0.00
6066	P-2378	10.00	6.10	130.00	Open	-0.20	1218.17	1218.17	0.00	0.00
6068	P-2379	10.00	6.10	130.00	Open	-0.46	967.36	967.36	0.00	0.00
6071	P-2380	10.00	6.10	130.00	Open	-0.20	1217.79	1217.79	0.00	0.00
6074	P-2381	10.00	6.10	130.00	Open	-0.20	988.99	988.99	0.00	0.00
6077	P-2382	10.00	6.10	130.00	Open	-0.08	1061.12	1061.12	0.00	0.00
6079	P-2383	10.00	6.10	130.00	Open	0.08	1064.91	1064.91	0.00	0.00
6082	P-2384	10.00	6.10	130.00	Open	0.88	1064.87	1064.87	0.00	0.00
6084	P-2385	10.00	6.10	130.00	Open	0.08	1052.03	1052.03	0.00	0.00
6086	P-2386	10.00	6.10	130.00	Open	0.20	1218.24	1218.24	0.00	0.00
6089	P-2387	10.00	6.10	130.00	Open	-0.20	1218.29	1218.29	0.00	0.00
6092	P-2388	10.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
6094	P-2389	10.00	6.10	130.00	Open	0.08	1058.82	1058.82	0.00	0.00
6096	P-2390	10.00	6.10	130.00	Open	0.28	1053.99	1053.99	0.00	0.00
6098	P-2391	10.00	6.10	130.00	Open	0.08	1051.74	1051.74	0.00	0.00
6100	P-2392	10.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
6102	P-2393	10.00	6.10	130.00	Open	0.48	1051.74	1051.74	0.00	0.00
6105	P-2394	10.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
6108	P-2395	10.00	6.10	130.00	Open	0.08	1053.38	1053.38	0.00	0.00
6110	P-2396	10.00	6.10	130.00	Open	0.29	1217.99	1217.99	0.00	0.00
6112	P-2397	10.00	6.10	130.00	Open	0.20	1218.17	1218.17	0.00	0.00
6115	P-2398	10.00	6.10	130.00	Open	0.20	1218.34	1218.34	0.00	0.00
6118	P-2399	10.00	6.10	130.00	Open	-0.20	1218.20	1218.20	0.00	0.00
6120	P-2400	10.00	6.10	130.00	Open	-0.48	1053.20	1053.20	0.00	0.00
6123	P-2401	10.00	6.10	130.00	Open	0.20	1218.16	1218.16	0.00	0.00
6126	P-2402	10.00	6.10	130.00	Open	0.08	1051.74	1051.74	0.00	0.00
6129	P-2403	10.00	6.10	130.00	Open	0.68	1051.80	1051.80	0.00	0.00
6131	P-2404	10.00	6.10	130.00	Open	-0.20	1218.31	1218.31	0.00	0.00
6133	P-2405	10.00	6.10	130.00	Open	0.28	1064.98	1064.98	0.00	0.00
6136	P-2406	10.00	6.10	130.00	Open	0.88	1052.99	1052.99	0.00	0.00
6138	P-2407	10.00	6.10	130.00	Open	0.08	1057.48	1057.48	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6141	P-2408	10.00	6.10	130.00	Open	0.28	1058.31	1058.31	0.00	0.00
6143	P-2409	10.00	6.10	130.00	Open	0.29	1218.03	1218.03	0.00	0.00
6145	P-2410	10.00	6.10	130.00	Open	0.48	1051.79	1051.79	0.00	0.00
6147	P-2411	10.00	6.10	130.00	Open	0.48	1064.96	1064.96	0.00	0.00
6149	P-2412	10.00	6.10	130.00	Open	0.88	963.94	963.94	0.00	0.00
6152	P-2413	10.00	6.10	130.00	Open	0.68	1051.76	1051.76	0.00	0.00
6154	P-2414	10.00	6.10	130.00	Open	-0.68	1059.76	1059.76	0.00	0.00
6156	P-2415	10.00	6.10	130.00	Open	0.68	873.78	873.78	0.00	0.00
6159	P-2416	10.00	6.10	130.00	Open	0.88	1052.12	1052.12	0.00	0.00
6162	P-2417	10.00	6.10	130.00	Open	0.08	1064.97	1064.97	0.00	0.00
6165	P-2418	10.00	6.10	130.00	Open	0.68	1062.80	1062.80	0.00	0.00
6167	P-2419	10.00	6.10	130.00	Open	0.28	1057.58	1057.58	0.00	0.00
6170	P-2420	10.00	6.10	130.00	Open	0.08	1058.43	1058.43	0.00	0.00
6172	P-2421	10.00	6.10	130.00	Open	0.28	1057.87	1057.87	0.00	0.00
6174	P-2422	10.00	6.10	130.00	Open	0.48	1057.27	1057.27	0.00	0.00
6177	P-2423	10.00	6.10	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
6179	P-2424	11.00	6.10	130.00	Open	-0.48	1063.05	1063.05	0.00	0.00
6181	P-2425	11.00	6.10	130.00	Open	-0.48	1062.40	1062.40	0.00	0.00
6183	P-2426	11.00	6.10	130.00	Open	-0.11	1322.98	1322.98	0.00	0.00
6185	P-2427	11.00	6.10	130.00	Open	0.68	1064.88	1064.88	0.00	0.00
6187	P-2428	11.00	6.10	130.00	Open	1.28	1064.93	1064.93	0.00	0.00
6190	P-2429	11.00	6.10	130.00	Open	0.48	1052.86	1052.86	0.00	0.00
6193	P-2430	11.00	6.10	130.00	Open	1.08	1052.53	1052.53	0.00	0.00
6195	P-2431	11.00	6.10	130.00	Open	0.28	1056.39	1056.39	0.00	0.00
6198	P-2432	11.00	6.10	130.00	Open	0.88	1051.84	1051.84	0.00	0.00
6201	P-2433	11.00	6.10	130.00	Open	0.88	1051.78	1051.78	0.00	0.00
6204	P-2434	11.00	6.10	130.00	Open	0.20	1218.19	1218.19	0.00	0.00
6207	P-2435	11.00	6.10	130.00	Open	-0.20	1218.01	1218.01	0.00	0.00
6209	P-2436	11.00	6.10	130.00	Open	0.28	1058.74	1058.74	0.00	0.00
6211	P-2437	11.00	6.10	130.00	Open	1.08	1052.87	1052.87	0.00	0.00
6214	P-2438	11.00	6.10	130.00	Open	0.08	1052.86	1052.86	0.00	0.00
6217	P-2439	11.00	6.10	130.00	Open	0.48	1059.75	1059.75	0.00	0.00
6219	P-2440	11.00	6.10	130.00	Open	-0.48	1057.64	1057.64	0.00	0.00
6221	P-2441	11.00	6.10	130.00	Open	0.20	1218.35	1218.35	0.00	0.00
6224	P-2442	11.00	6.10	130.00	Open	0.20	1218.21	1218.21	0.00	0.00
6227	P-2443	11.00	6.10	130.00	Open	-1.48	1059.01	1059.01	0.00	0.00
6230	P-2444	11.00	6.10	130.00	Open	1.28	1053.00	1053.00	0.00	0.00
6232	P-2445	11.00	6.10	130.00	Open	0.20	1218.23	1218.23	0.00	0.00
6235	P-2446	11.00	6.10	130.00	Open	-0.88	1061.88	1061.88	0.00	0.00
6238	P-2447	11.00	6.10	130.00	Open	0.48	1052.12	1052.12	0.00	0.00
6241	P-2448	11.00	6.10	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
6244	P-2449	11.00	6.10	130.00	Open	0.08	1060.72	1060.72	0.00	0.00
6247	P-2450	11.00	6.10	130.00	Open	-0.28	1053.48	1053.48	0.00	0.00
6250	P-2451	11.00	6.10	130.00	Open	-0.20	1217.87	1217.87	0.00	0.00
6252	P-2452	11.00	6.10	130.00	Open	0.48	1058.47	1058.47	0.00	0.00
6254	P-2453	11.00	6.10	130.00	Open	0.28	1053.00	1053.00	0.00	0.00
6257	P-2454	11.00	6.10	130.00	Open	-0.08	1062.79	1062.79	0.00	0.00
6259	P-2455	11.00	6.10	130.00	Open	1.08	1057.97	1057.97	0.00	0.00
6262	P-2456	11.00	6.10	130.00	Open	0.88	1058.14	1058.14	0.00	0.00
6264	P-2457	11.00	6.10	130.00	Open	-0.20	1217.93	1217.93	0.00	0.00
6266	P-2458	11.00	6.10	130.00	Open	-0.20	1217.83	1217.83	0.00	0.00
6268	P-2459	11.00	6.10	130.00	Open	-0.20	1217.89	1217.89	0.00	0.00
6270	P-2460	11.00	6.10	130.00	Open	-0.20	1217.92	1217.92	0.00	0.00
6272	P-2461	11.00	6.10	130.00	Open	-0.37	1217.76	1217.76	0.00	0.00
6275	P-2462	11.00	6.10	130.00	Open	-0.20	967.37	967.37	0.00	0.00
6278	P-2463	11.00	6.10	130.00	Open	0.48	1053.00	1053.00	0.00	0.00
6280	P-2464	11.00	6.10	130.00	Open	-0.88	1064.96	1064.96	0.00	0.00
6282	P-2465	11.00	6.10	130.00	Open	-0.08	1064.98	1064.98	0.00	0.00
6284	P-2466	11.00	6.10	130.00	Open	-0.08	1055.73	1055.73	0.00	0.00
6287	P-2467	11.00	6.10	130.00	Open	0.08	1061.76	1061.76	0.00	0.00
6289	P-2468	11.00	6.10	130.00	Open	-0.48	1051.92	1051.92	0.00	0.00
6291	P-2469	11.00	6.10	130.00	Open	1.28	1056.20	1056.20	0.00	0.00
6294	P-2470	11.00	6.10	130.00	Open	0.88	1059.77	1059.77	0.00	0.00
6296	P-2471	11.00	6.10	130.00	Open	0.48	873.78	873.78	0.00	0.00
6299	P-2472	11.00	6.10	130.00	Open	1.68	1051.30	1051.30	0.00	0.00
6301	P-2473	11.00	6.10	130.00	Open	0.48	1051.76	1051.76	0.00	0.00
6304	P-2474	11.00	6.10	130.00	Open	0.08	1057.34	1057.34	0.00	0.00
6307	P-2475	11.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6309	P-2476	11.00	6.10	130.00	Open	0.08	1058.89	1058.89	0.00	0.00
6311	P-2477	11.00	6.10	130.00	Open	-0.08	1051.92	1051.92	0.00	0.00
6313	P-2478	11.00	6.10	130.00	Open	1.48	1051.80	1051.80	0.00	0.00
6316	P-2479	11.00	6.10	130.00	Open	0.88	1051.03	1051.03	0.00	0.00
6318	P-2480	11.00	6.10	130.00	Open	0.28	1052.56	1052.56	0.00	0.00
6320	P-2481	11.00	6.10	130.00	Open	-0.88	1056.05	1056.05	0.00	0.00
6323	P-2482	11.00	6.10	130.00	Open	1.48	1052.86	1052.86	0.00	0.00
6326	P-2483	11.00	6.10	130.00	Open	0.68	1051.79	1051.79	0.00	0.00
6328	P-2484	11.00	6.10	130.00	Open	-0.20	1218.25	1218.25	0.00	0.00
6330	P-2485	11.00	6.10	130.00	Open	0.08	1052.68	1052.68	0.00	0.00
6333	P-2486	11.00	6.10	130.00	Open	0.20	993.44	993.44	0.00	0.00
6336	P-2487	11.00	6.10	130.00	Open	1.68	1051.81	1051.81	0.00	0.00
6339	P-2488	11.00	6.10	130.00	Open	0.08	1052.51	1052.51	0.00	0.00
6342	P-2489	11.00	6.10	130.00	Open	0.20	1216.88	1216.88	0.00	0.00
6344	P-2490	11.00	6.10	130.00	Open	-0.48	1059.76	1059.76	0.00	0.00
6346	P-2491	11.00	6.10	130.00	Open	0.68	1056.79	1056.79	0.00	0.00
6348	P-2492	11.00	6.10	130.00	Open	1.28	1051.81	1051.81	0.00	0.00
6351	P-2493	11.00	6.10	130.00	Open	0.48	1056.39	1056.39	0.00	0.00
6354	P-2494	11.00	6.10	130.00	Open	-0.28	1059.76	1059.76	0.00	0.00
6357	P-2495	11.00	6.10	130.00	Open	-0.88	1053.48	1053.48	0.00	0.00
6359	P-2496	11.00	6.10	130.00	Open	-1.28	1062.79	1062.79	0.00	0.00
6361	P-2497	11.00	6.10	130.00	Open	2.09	1051.81	1051.81	0.00	0.00
6363	P-2498	11.00	6.10	130.00	Open	-0.08	1064.82	1064.82	0.00	0.00
6366	P-2499	11.00	6.10	130.00	Open	-0.08	1059.76	1059.76	0.00	0.00
6369	P-2500	12.00	6.10	130.00	Open	0.20	993.44	993.44	0.00	0.00
6371	P-2501	11.00	6.10	130.00	Open	-0.20	1217.72	1217.72	0.00	0.00
6373	P-2502	11.00	6.10	130.00	Open	0.28	1051.74	1051.74	0.00	0.00
6376	P-2503	11.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
6378	P-2504	11.00	6.10	130.00	Open	0.48	1051.74	1051.74	0.00	0.00
6380	P-2505	12.00	6.10	130.00	Open	0.28	1057.53	1057.53	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6383	P-2506	12.00	6.10	130.00	Open	-0.29	1218.15	1218.15	0.00	0.00
6385	P-2507	12.00	6.10	130.00	Open	0.08	1058.75	1058.75	0.00	0.00
6387	P-2508	12.00	6.10	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
6390	P-2509	12.00	6.10	130.00	Open	-0.08	1056.05	1056.05	0.00	0.00
6393	P-2510	12.00	6.10	130.00	Open	-0.08	1059.76	1059.76	0.00	0.00
6395	P-2511	12.00	6.10	130.00	Open	-1.08	1059.76	1059.76	0.00	0.00
6397	P-2512	12.00	6.10	130.00	Open	-0.08	1060.47	1060.47	0.00	0.00
6399	P-2513	12.00	6.10	130.00	Open	-0.48	1064.98	1064.98	0.00	0.00
6402	P-2514	12.00	6.10	130.00	Open	0.20	1218.47	1218.47	0.00	0.00
6404	P-2515	12.00	6.10	130.00	Open	-0.28	1059.99	1059.99	0.00	0.00
6407	P-2516	12.00	6.10	130.00	Open	0.48	1060.27	1060.27	0.00	0.00
6409	P-2517	12.00	6.10	130.00	Open	-0.48	1059.01	1059.01	0.00	0.00
6411	P-2518	12.00	6.10	130.00	Open	-0.48	1061.88	1061.88	0.00	0.00
6414	P-2519	12.00	6.10	130.00	Open	-0.08	1059.76	1059.76	0.00	0.00
6416	P-2520	12.00	6.10	130.00	Open	-0.28	1064.99	1064.99	0.00	0.00
6418	P-2521	12.00	6.10	130.00	Open	-0.28	1064.83	1064.83	0.00	0.00
6421	P-2522	12.00	6.10	130.00	Open	-0.28	1057.00	1057.00	0.00	0.00
6423	P-2523	12.00	6.10	130.00	Open	-0.08	1051.98	1051.98	0.00	0.00
6425	P-2524	12.00	6.10	130.00	Open	0.08	1064.98	1064.98	0.00	0.00
6428	P-2525	12.00	6.10	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
6430	P-2526	12.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
6432	P-2527	12.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6435	P-2528	12.00	6.10	130.00	Open	-0.37	1218.15	1218.15	0.00	0.00
6438	P-2529	12.00	6.10	130.00	Open	0.20	1218.32	1218.32	0.00	0.00
6441	P-2530	12.00	6.10	130.00	Open	0.68	1051.76	1051.76	0.00	0.00
6443	P-2531	12.00	6.10	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
6445	P-2532	12.00	6.10	130.00	Open	-0.48	1064.96	1064.96	0.00	0.00
6447	P-2533	12.00	6.10	130.00	Open	-1.28	1059.77	1059.77	0.00	0.00
6449	P-2534	12.00	6.10	130.00	Open	-0.48	1059.77	1059.77	0.00	0.00
6451	P-2535	12.00	6.10	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
6454	P-2536	12.00	6.10	130.00	Open	0.08	1057.75	1057.75	0.00	0.00
6457	P-2537	12.00	6.10	130.00	Open	0.08	1052.04	1052.04	0.00	0.00
6459	P-2538	12.00	6.10	130.00	Open	0.68	1052.03	1052.03	0.00	0.00
6461	P-2539	12.00	6.10	130.00	Open	-0.26	1322.98	1322.98	0.00	0.00
6463	P-2540	12.00	6.10	130.00	Open	0.20	1218.58	1218.58	0.00	0.00
6465	P-2541	12.00	6.10	130.00	Open	0.08	1053.93	1053.93	0.00	0.00
6468	P-2542	12.00	6.10	130.00	Open	-0.28	1053.48	1053.48	0.00	0.00
6470	P-2543	12.00	6.10	130.00	Open	1.08	1051.83	1051.83	0.00	0.00
6473	P-2544	12.00	6.10	130.00	Open	-0.68	1064.82	1064.82	0.00	0.00
6475	P-2545	12.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
6478	P-2546	12.00	6.10	130.00	Open	-0.08	1061.12	1061.12	0.00	0.00
6480	P-2547	12.00	6.10	130.00	Open	1.08	1052.09	1052.09	0.00	0.00
6482	P-2548	12.00	6.10	130.00	Open	0.08	1064.92	1064.92	0.00	0.00
6485	P-2549	12.00	6.10	130.00	Open	0.08	1053.01	1053.01	0.00	0.00
6487	P-2550	12.00	6.10	130.00	Open	0.20	1218.37	1218.37	0.00	0.00
6489	P-2551	12.00	6.10	130.00	Open	0.48	1052.79	1052.79	0.00	0.00
6491	P-2552	12.00	6.10	130.00	Open	0.68	1052.76	1052.76	0.00	0.00
6494	P-2553	12.00	6.10	130.00	Open	0.08	1055.93	1055.93	0.00	0.00
6496	P-2554	12.00	6.10	130.00	Open	0.08	1052.19	1052.19	0.00	0.00
6498	P-2555	12.00	6.10	130.00	Open	0.20	1217.75	1217.75	0.00	0.00
6501	P-2556	12.00	6.10	130.00	Open	1.48	1054.00	1054.00	0.00	0.00
6503	P-2557	12.00	6.10	130.00	Open	0.68	1052.64	1052.64	0.00	0.00
6505	P-2558	12.00	6.10	130.00	Open	0.28	1051.81	1051.81	0.00	0.00
6508	P-2559	12.00	6.10	130.00	Open	-0.11	1322.97	1322.97	0.00	0.00
6510	P-2560	12.00	6.10	130.00	Open	-0.08	1060.34	1060.34	0.00	0.00
6513	P-2561	12.00	6.10	130.00	Open	-0.48	1059.86	1059.86	0.00	0.00
6515	P-2562	12.00	6.10	130.00	Open	0.48	1064.92	1064.92	0.00	0.00
6518	P-2563	12.00	6.10	130.00	Open	0.68	1052.86	1052.86	0.00	0.00
6521	P-2564	12.00	6.10	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
6523	P-2565	12.00	6.10	130.00	Open	1.28	1053.98	1053.98	0.00	0.00
6525	P-2566	12.00	6.10	130.00	Open	1.48	1056.05	1056.05	0.00	0.00
6527	P-2567	12.00	6.10	130.00	Open	0.20	1218.65	1218.65	0.00	0.00
6529	P-2568	12.00	6.10	130.00	Open	0.48	1056.20	1056.20	0.00	0.00
6532	P-2569	12.00	6.10	130.00	Open	0.20	1216.06	1216.06	0.00	0.00
6534	P-2570	12.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
6536	P-2571	12.00	6.10	130.00	Open	-0.48	1059.99	1059.99	0.00	0.00
6539	P-2572	12.00	6.10	130.00	Open	-0.68	1064.98	1064.98	0.00	0.00
6542	P-2573	12.00	6.10	130.00	Open	0.68	1057.65	1057.65	0.00	0.00
6544	P-2574	12.00	6.10	130.00	Open	-0.29	1215.66	1215.66	0.00	0.00
6546	P-2575	13.00	6.10	130.00	Open	-0.48	1059.76	1059.76	0.00	0.00
6549	P-2576	13.00	6.10	130.00	Open	0.68	1051.76	1051.76	0.00	0.00
6552	P-2577	13.00	6.10	130.00	Open	0.28	1052.12	1052.12	0.00	0.00
6555	P-2578	13.00	6.10	130.00	Open	0.48	1053.42	1053.42	0.00	0.00
6558	P-2579	13.00	6.10	130.00	Open	0.28	1051.89	1051.89	0.00	0.00
6561	P-2580	13.00	6.10	130.00	Open	0.48	1052.12	1052.12	0.00	0.00
6564	P-2581	13.00	6.10	130.00	Open	0.08	1053.02	1053.02	0.00	0.00
6566	P-2582	13.00	6.10	130.00	Open	-1.88	1061.12	1061.12	0.00	0.00
6569	P-2583	13.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
6571	P-2584	13.00	6.10	130.00	Open	-0.08	1053.48	1053.48	0.00	0.00
6574	P-2585	13.00	6.10	130.00	Open	0.68	1052.03	1052.03	0.00	0.00
6576	P-2586	13.00	6.10	130.00	Open	-0.68	1056.78	1056.78	0.00	0.00
6578	P-2587	13.00	6.10	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
6581	P-2588	13.00	6.10	130.00	Open	0.28	1057.30	1057.30	0.00	0.00
6584	P-2589	13.00	6.10	130.00	Open	0.28	1052.13	1052.13	0.00	0.00
6586	P-2590	13.00	6.10	130.00	Open	-0.20	1218.12	1218.12	0.00	0.00
6588	P-2591	13.00	6.10	130.00	Open	0.08	1052.17	1052.17	0.00	0.00
6590	P-2592	13.00	6.10	130.00	Open	0.08	1053.03	1053.03	0.00	0.00
6592	P-2593	13.00	6.10	130.00	Open	0.28	1052.51	1052.51	0.00	0.00
6595	P-2594	13.00	6.10	130.00	Open	-0.28	1052.09	1052.09	0.00	0.00
6597	P-2595	13.00	6.10	130.00	Open	0.48	1051.76	1051.76	0.00	0.00
6599	P-2596	13.00	6.10	130.00	Open	0.20	1218.31	1218.31	0.00	0.00
6602	P-2597	13.00	6.10	130.00	Open	0.08	1052.04	1052.04	0.00	0.00
6604	P-2598	13.00	6.10	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
6607	P-2599	13.00	6.10	130.00	Open	-0.08	1060.27	1060.27	0.00	0.00
6610	P-2600	13.00	6.10	130.00	Open	-0.28	1060.48	1060.48	0.00	0.00
6612	P-2601	13.00	6.10	130.00	Open	-0.08	1053.00	1053.00	0.00	0.00
6615	P-2602	13.00	6.10	130.00	Open	0.28	1057.27	1057.27	0.00	0.00
6617	P-2603	13.00	6.10	130.00	Open	1.08	1052.99	1052.99	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6619	P-2604	13.00	6.10	130.00	Open	0.08	1054.66	1054.66	0.00	0.00
6622	P-2605	13.00	6.10	130.00	Open	0.48	1057.53	1057.53	0.00	0.00
6625	P-2606	13.00	6.10	130.00	Open	-1.28	1054.25	1054.25	0.00	0.00
6628	P-2607	13.00	6.10	130.00	Open	0.68	1055.79	1055.79	0.00	0.00
6631	P-2608	13.00	6.10	130.00	Open	0.08	1052.53	1052.53	0.00	0.00
6634	P-2609	13.00	6.10	130.00	Open	0.28	1051.31	1051.31	0.00	0.00
6636	P-2610	13.00	6.10	130.00	Open	0.08	1058.85	1058.85	0.00	0.00
6638	P-2611	13.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
6640	P-2612	13.00	6.10	130.00	Open	1.48	1053.73	1053.73	0.00	0.00
6643	P-2613	13.00	6.10	130.00	Open	0.08	1064.92	1064.92	0.00	0.00
6646	P-2614	13.00	6.10	130.00	Open	0.20	1218.14	1218.14	0.00	0.00
6648	P-2615	13.00	6.10	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
6651	P-2616	13.00	6.10	130.00	Open	0.08	1056.91	1056.91	0.00	0.00
6653	P-2617	13.00	6.10	130.00	Open	-0.48	1064.93	1064.93	0.00	0.00
6655	P-2618	13.00	6.10	130.00	Open	-0.20	1218.05	1218.05	0.00	0.00
6657	P-2619	13.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6659	P-2620	13.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
6661	P-2621	13.00	6.10	130.00	Open	-0.88	1064.91	1064.91	0.00	0.00
6664	P-2622	13.00	6.10	130.00	Open	0.28	1061.12	1061.12	0.00	0.00
6667	P-2623	13.00	6.10	130.00	Open	0.08	1053.04	1053.04	0.00	0.00
6670	P-2624	13.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
6672	P-2625	13.00	6.10	130.00	Open	0.08	1053.42	1053.42	0.00	0.00
6674	P-2626	13.00	6.10	130.00	Open	0.48	1055.29	1055.29	0.00	0.00
6676	P-2627	13.00	6.10	130.00	Open	-0.88	1064.91	1064.91	0.00	0.00
6679	P-2628	13.00	6.10	130.00	Open	0.08	1056.76	1056.76	0.00	0.00
6681	P-2629	13.00	6.10	130.00	Open	0.88	1053.22	1053.22	0.00	0.00
6683	P-2630	14.00	6.10	130.00	Open	0.28	1052.40	1052.40	0.00	0.00
6686	P-2631	14.00	6.10	130.00	Open	0.68	1051.74	1051.74	0.00	0.00
6689	P-2632	14.00	6.10	130.00	Open	-0.68	1064.82	1064.82	0.00	0.00
6692	P-2633	14.00	6.10	130.00	Open	-0.08	1057.64	1057.64	0.00	0.00
6694	P-2634	14.00	6.10	130.00	Open	1.88	1052.50	1052.50	0.00	0.00
6697	P-2635	14.00	6.10	130.00	Open	0.08	1052.95	1052.95	0.00	0.00
6699	P-2636	14.00	6.10	130.00	Open	0.08	1056.35	1056.35	0.00	0.00
6701	P-2637	14.00	6.10	130.00	Open	0.28	1064.90	1064.90	0.00	0.00
6703	P-2638	14.00	6.10	130.00	Open	0.08	1053.24	1053.24	0.00	0.00
6706	P-2639	14.00	6.10	130.00	Open	-0.08	1057.64	1057.64	0.00	0.00
6708	P-2640	14.00	6.10	130.00	Open	-0.88	1064.96	1064.96	0.00	0.00
6710	P-2641	14.00	6.10	130.00	Open	0.08	1057.29	1057.29	0.00	0.00
6712	P-2642	14.00	6.10	130.00	Open	0.48	1057.29	1057.29	0.00	0.00
6715	P-2643	14.00	6.10	130.00	Open	-0.68	1060.09	1060.09	0.00	0.00
6718	P-2644	14.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
6720	P-2645	14.00	6.10	130.00	Open	-0.20	1218.07	1218.07	0.00	0.00
6722	P-2646	14.00	6.10	130.00	Open	-0.48	1060.15	1060.15	0.00	0.00
6724	P-2647	14.00	6.10	130.00	Open	0.68	1051.90	1051.90	0.00	0.00
6727	P-2648	14.00	6.10	130.00	Open	-0.28	1064.82	1064.82	0.00	0.00
6730	P-2649	14.00	6.10	130.00	Open	0.28	1053.37	1053.37	0.00	0.00
6732	P-2650	14.00	6.10	130.00	Open	0.20	1218.42	1218.42	0.00	0.00
6734	P-2651	14.00	6.10	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
6736	P-2652	14.00	6.10	130.00	Open	1.28	1052.53	1052.53	0.00	0.00
6738	P-2653	14.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
6741	P-2654	14.00	6.10	130.00	Open	0.48	1063.54	1063.54	0.00	0.00
6743	P-2655	14.00	6.10	130.00	Open	0.28	1052.54	1052.54	0.00	0.00
6746	P-2656	14.00	6.10	130.00	Open	-1.08	981.48	981.48	0.00	0.00
7228	P-2657	11.00	8.00	130.00	Open	0.08	1064.94	1064.94	0.00	0.00
7230	P-2658	11.00	8.00	130.00	Open	26.47	1218.14	1218.14	0.00	0.00
7231	P-2659	11.00	8.00	130.00	Open	0.28	1061.12	1061.12	0.00	0.00
7233	P-2660	11.00	8.00	130.00	Open	0.08	1053.58	1053.58	0.00	0.00
7236	P-2661	11.00	8.00	130.00	Open	0.68	1053.01	1053.01	0.00	0.00
7238	P-2662	11.00	8.00	130.00	Open	2.04	873.78	873.78	0.00	0.00
7239	P-2663	11.00	8.00	130.00	Open	1.76	1061.11	1061.11	0.00	0.00
7240	P-2664	11.00	8.00	130.00	Open	0.88	1064.93	1064.93	0.00	0.00
7242	P-2665	11.00	8.00	130.00	Open	0.20	1217.76	1217.76	0.00	0.00
7245	P-2666	11.00	8.00	130.00	Open	7.40	1061.12	1061.12	0.00	0.00
7247	P-2667	11.00	8.00	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
7250	P-2668	11.00	8.00	130.00	Open	-0.08	1052.00	1052.00	0.00	0.00
7252	P-2669	11.00	8.00	130.00	Open	-33.47	1057.43	1057.43	0.00	0.00
7253	P-2670	11.00	8.00	130.00	Open	-0.08	1057.28	1057.28	0.00	0.00
7256	P-2671	11.00	8.00	130.00	Open	-0.96	1056.39	1056.39	0.00	0.00
7257	P-2672	12.00	8.00	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7259	P-2673	12.00	8.00	130.00	Open	8.94	1057.97	1057.97	0.00	0.00
7261	P-2675	12.00	8.00	130.00	Open	0.20	988.99	988.99	0.00	0.00
7264	P-2676	13.00	8.00	130.00	Open	1.84	1051.83	1051.83	0.00	0.00
7265	P-2677	13.00	8.00	130.00	Open	-0.68	1051.73	1051.73	0.00	0.00
7267	P-2678	13.00	8.00	130.00	Open	29.79	1064.99	1064.98	0.00	0.00
7270	P-2679	13.00	8.00	130.00	Open	36.40	1053.03	1053.03	0.00	0.00
7271	P-2680	13.00	8.00	130.00	Open	4.71	1057.28	1057.28	0.00	0.00
7273	P-2681	13.00	8.00	130.00	Open	1.16	1064.81	1064.81	0.00	0.00
7274	P-2682	13.00	8.00	130.00	Open	11.57	1052.51	1052.51	0.00	0.00
7275	P-2683	13.00	8.00	130.00	Open	8.80	1062.81	1062.81	0.00	0.00
7276	P-2684	13.00	8.00	130.00	Open	4.68	1059.01	1059.01	0.00	0.00
7278	P-2685	13.00	8.00	130.00	Open	-0.08	1056.92	1056.92	0.00	0.00
7281	P-2686	13.00	8.00	130.00	Open	4.25	1322.91	1322.91	0.00	0.00
7282	P-2687	13.00	8.00	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
7285	P-2688	14.00	8.00	130.00	Open	1.16	1061.88	1061.88	0.00	0.00
7286	P-2689	14.00	8.00	130.00	Open	-1.36	1061.87	1061.87	0.00	0.00
7287	P-2690	14.00	8.00	130.00	Open	-1.08	1056.92	1056.92	0.00	0.00
7290	P-2691	14.00	8.00	130.00	Open	3.75	1051.83	1051.83	0.00	0.00
7291	P-2692	14.00	8.00	130.00	Open	4.77	1217.75	1217.75	0.00	0.00
7292	P-2693	15.00	8.00	130.00	Open	-54.43	1063.11	1063.11	0.00	0.00
7293	P-2694	15.00	8.00	130.00	Open	3.12	1218.15	1218.15	0.00	0.00
7294	P-2695	15.00	8.00	130.00	Open	-0.08	1057.30	1057.30	0.00	0.00
7296	P-2696	15.00	8.00	130.00	Open	0.28	981.48	981.48	0.00	0.00
7298	P-2697	15.00	8.00	130.00	Open	-58.76	1052.56	1052.56	0.00	0.00
7300	P-2698	15.00	8.00	130.00	Open	0.08	1056.26	1056.26	0.00	0.00
7302	P-2699	15.00	8.00	130.00	Open	223.10	1052.74	1052.72	0.02	0.00
7303	P-2700	16.00	8.00	130.00	Open	3.74	1216.97	1216.97	0.00	0.00
7304	P-2701	17.00	8.00	130.00	Open	1.56	1064.98	1064.98	0.00	0.00
7306	P-2702	16.00	8.00	130.00	Open	12.59	1051.80	1051.80	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7307	P-2703	16.00	8.00	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
7312	P-2705	17.00	8.00	130.00	Open	3.20	1064.91	1064.91	0.00	0.00
7313	P-2706	17.00	8.00	130.00	Open	3.07	1062.55	1062.55	0.00	0.00
7314	P-2707	17.00	8.00	130.00	Open	3.63	1051.98	1051.98	0.00	0.00
7315	P-2708	17.00	8.00	130.00	Open	0.94	1218.15	1218.15	0.00	0.00
7317	P-2709	17.00	8.00	130.00	Open	14.35	993.44	993.44	0.00	0.00
7318	P-2710	17.00	8.00	130.00	Open	4.35	1051.81	1051.81	0.00	0.00
7319	P-2711	18.00	8.00	130.00	Open	-0.08	1052.86	1052.86	0.00	0.00
7321	P-2712	18.00	8.00	130.00	Open	0.91	1064.94	1064.94	0.00	0.00
7322	P-2713	18.00	8.00	130.00	Open	4.80	1064.81	1064.81	0.00	0.00
7324	P-2714	18.00	8.00	130.00	Open	13.30	1057.33	1057.33	0.00	0.00
7326	P-2715	18.00	8.00	130.00	Open	-0.20	1218.15	1218.15	0.00	0.00
7328	P-2716	18.00	8.00	130.00	Open	5.71	1052.99	1052.99	0.00	0.00
7330	P-2717	18.00	8.00	130.00	Open	-1.11	1056.64	1056.64	0.00	0.00
7331	P-2718	18.00	8.00	130.00	Open	-1.36	1052.56	1052.56	0.00	0.00
7332	P-2719	18.00	8.00	130.00	Open	10.99	1064.82	1064.82	0.00	0.00
7333	P-2720	19.00	8.00	130.00	Open	0.90	1051.74	1051.74	0.00	0.00
7334	P-2721	19.00	8.00	130.00	Open	6.40	1217.75	1217.75	0.00	0.00
7335	P-2722	30.00	8.00	130.00	Open	-0.48	1059.33	1059.33	0.00	0.00
7338	P-2723	19.00	8.00	130.00	Open	0.08	1064.81	1064.81	0.00	0.00
7341	P-2724	20.00	8.00	130.00	Open	-0.08	1056.92	1056.92	0.00	0.00
7344	P-2725	21.00	8.00	130.00	Open	0.48	1054.86	1054.86	0.00	0.00
7347	P-2726	21.00	8.00	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
7349	P-2727	21.00	8.00	130.00	Open	0.08	1053.10	1053.10	0.00	0.00
7351	P-2728	21.00	8.00	130.00	Open	-1.12	988.98	988.98	0.00	0.00
7352	P-2729	21.00	8.00	130.00	Open	-41.34	1051.97	1051.97	0.00	0.00
7353	P-2730	22.00	8.00	130.00	Open	-9.37	1051.74	1051.74	0.00	0.00
7354	P-2731	22.00	8.00	130.00	Open	31.31	1051.88	1051.88	0.00	0.00
7355	P-2732	24.00	8.00	130.00	Open	-38.85	1051.89	1051.89	0.00	0.00
7356	P-2733	23.00	8.00	130.00	Open	0.08	1064.98	1064.98	0.00	0.00
7358	P-2734	27.00	8.00	130.00	Open	9.24	1051.85	1051.85	0.00	0.00
7360	P-2735	24.00	8.00	130.00	Open	2.79	1051.96	1051.96	0.00	0.00
7361	P-2736	24.00	8.00	130.00	Open	-10.14	1052.24	1052.24	0.00	0.00
7362	P-2737	24.00	8.00	130.00	Open	81.24	1053.93	1053.92	0.00	0.00
7363	P-2738	24.00	8.00	130.00	Open	2.76	1056.20	1056.20	0.00	0.00
7364	P-2739	25.00	8.00	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
7366	P-2740	25.00	8.00	130.00	Open	-10.14	1052.20	1052.20	0.00	0.00
7367	P-2741	25.00	8.00	130.00	Open	1.51	1064.93	1064.93	0.00	0.00
7370	P-2742	25.00	8.00	130.00	Open	-102.47	1053.03	1053.04	0.01	0.00
7371	P-2743	26.00	8.00	130.00	Open	59.42	1063.20	1063.20	0.00	0.00
7372	P-2744	26.00	8.00	130.00	Open	2.24	1052.49	1052.49	0.00	0.00
7373	P-2745	26.00	8.00	130.00	Open	10.12	1061.12	1061.12	0.00	0.00
7375	P-2746	26.00	8.00	130.00	Open	0.48	1052.85	1052.85	0.00	0.00
7377	P-2747	27.00	8.00	130.00	Open	18.47	1064.82	1064.82	0.00	0.00
7379	P-2748	27.00	8.00	130.00	Open	0.08	1057.28	1057.28	0.00	0.00
7382	P-2749	28.00	8.00	130.00	Open	0.63	1052.85	1052.85	0.00	0.00
7383	P-2750	28.00	8.00	130.00	Open	-0.29	1218.03	1218.03	0.00	0.00
7385	P-2751	28.00	8.00	130.00	Open	1.91	1060.15	1060.15	0.00	0.00
7387	P-2752	28.00	8.00	130.00	Open	-6.87	988.99	988.99	0.00	0.00
7388	P-2753	29.00	8.00	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
7390	P-2754	29.00	8.00	130.00	Open	7.24	1057.27	1057.27	0.00	0.00
7391	P-2755	29.00	8.00	130.00	Open	-23.48	1057.57	1057.57	0.00	0.00
7392	P-2756	29.00	8.00	130.00	Open	3.20	1056.78	1056.78	0.00	0.00
7393	P-2757	29.00	8.00	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
7396	P-2758	29.00	8.00	130.00	Open	9.60	1052.80	1052.80	0.00	0.00
7398	P-2759	30.00	8.00	130.00	Open	5.56	1053.48	1053.48	0.00	0.00
7399	P-2760	30.00	8.00	130.00	Open	0.48	1056.83	1056.83	0.00	0.00
7401	P-2761	30.00	8.00	130.00	Open	0.28	1054.66	1054.66	0.00	0.00
7403	P-2762	30.00	8.00	130.00	Open	0.16	1056.92	1056.92	0.00	0.00
7404	P-2763	31.00	8.00	130.00	Open	-18.73	1053.01	1053.01	0.00	0.00
7405	P-2764	31.00	8.00	130.00	Open	-11.13	1064.97	1064.97	0.00	0.00
7406	P-2765	31.00	8.00	130.00	Open	6.00	1218.03	1218.03	0.00	0.00
7407	P-2766	31.00	8.00	130.00	Open	2.52	1064.94	1064.94	0.00	0.00
7411	P-2768	32.00	8.00	130.00	Open	7.97	1052.50	1052.50	0.00	0.00
7412	P-2769	32.00	8.00	130.00	Open	16.33	1052.12	1052.12	0.00	0.00
7414	P-2770	32.00	8.00	130.00	Open	1.23	1064.94	1064.94	0.00	0.00
7415	P-2771	32.00	8.00	130.00	Open	0.08	1053.10	1053.10	0.00	0.00
7418	P-2772	32.00	8.00	130.00	Open	0.08	1051.98	1051.98	0.00	0.00
7420	P-2773	33.00	8.00	130.00	Open	1.26	1064.93	1064.93	0.00	0.00
7421	P-2774	34.00	8.00	130.00	Open	1.44	1061.88	1061.88	0.00	0.00
7423	P-2775	35.00	8.00	130.00	Open	0.63	1064.98	1064.98	0.00	0.00
7424	P-2776	35.00	8.00	130.00	Open	64.31	1060.27	1060.26	0.00	0.00
7425	P-2777	36.00	8.00	130.00	Open	6.67	1051.83	1051.83	0.00	0.00
7427	P-2778	36.00	8.00	130.00	Open	15.64	1064.93	1064.93	0.00	0.00
7428	P-2779	39.00	8.00	130.00	Open	30.59	1218.28	1218.28	0.00	0.00
7430	P-2780	36.00	8.00	130.00	Open	16.10	1061.12	1061.12	0.00	0.00
7432	P-2781	38.00	8.00	130.00	Open	8.04	981.48	981.48	0.00	0.00
7433	P-2782	38.00	8.00	130.00	Open	-5.66	1218.02	1218.02	0.00	0.00
7435	P-2783	38.00	8.00	130.00	Open	-35.60	1051.96	1051.96	0.00	0.00
7436	P-2784	38.00	8.00	130.00	Open	0.63	1061.12	1061.12	0.00	0.00
7438	P-2785	38.00	8.00	130.00	Open	10.11	1061.12	1061.12	0.00	0.00
7440	P-2786	38.00	8.00	130.00	Open	11.81	1064.93	1064.93	0.00	0.00
7441	P-2787	38.00	8.00	130.00	Open	2.26	1218.03	1218.03	0.00	0.00
7442	P-2788	38.00	8.00	130.00	Open	7.75	1064.81	1064.81	0.00	0.00
7443	P-2789	39.00	8.00	130.00	Open	0.60	1218.03	1218.03	0.00	0.00
7444	P-2790	40.00	8.00	130.00	Open	5.48	1064.81	1064.81	0.00	0.00
7445	P-2791	40.00	8.00	130.00	Open	-1.64	1054.63	1054.63	0.00	0.00
7446	P-2792	40.00	8.00	130.00	Open	1.64	1064.93	1064.93	0.00	0.00
7447	P-2793	40.00	8.00	130.00	Open	0.77	1052.12	1052.12	0.00	0.00
7449	P-2794	42.00	8.00	130.00	Open	39.89	1052.02	1052.01	0.00	0.00
7451	P-2795	41.00	8.00	130.00	Open	5.33	1051.84	1051.84	0.00	0.00
7453	P-2796	41.00	8.00	130.00	Open	54.54	1052.09	1052.09	0.00	0.00
7455	P-2797	42.00	8.00	130.00	Open	0.28	1056.06	1056.06	0.00	0.00
7457	P-2798	42.00	8.00	130.00	Open	14.24	1051.84	1051.84	0.00	0.00
7458	P-2799	42.00	8.00	130.00	Open	9.80	1064.98	1064.98	0.00	0.00
7459	P-2800	44.00	8.00	130.00	Open	0.08	1057.42	1057.42	0.00	0.00
7462	P-2801	43.00	8.00	130.00	Open	-8.48	1052.86	1052.86	0.00	0.00
7464	P-2802	43.00	8.00	130.00	Open	-42.25	1051.97	1051.98	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7466	P-2803	43.00	8.00	130.00	Open	-33.13	1051.95	1051.95	0.00	0.00
7467	P-2804	44.00	8.00	130.00	Open	4.40	1064.93	1064.93	0.00	0.00
7468	P-2805	44.00	8.00	130.00	Open	3.35	1056.91	1056.91	0.00	0.00
7470	P-2806	45.00	8.00	130.00	Open	0.69	1057.32	1057.32	0.00	0.00
7471	P-2807	45.00	8.00	130.00	Open	12.23	1064.82	1064.82	0.00	0.00
7472	P-2808	45.00	8.00	130.00	Open	0.48	1057.29	1057.29	0.00	0.00
7475	P-2809	47.00	8.00	130.00	Open	3.28	1322.91	1322.91	0.00	0.00
7477	P-2810	48.00	8.00	130.00	Open	0.56	1059.33	1059.33	0.00	0.00
7478	P-2811	47.00	8.00	130.00	Open	5.03	1064.92	1064.92	0.00	0.00
7480	P-2812	47.00	8.00	130.00	Open	2.59	1057.28	1057.28	0.00	0.00
7482	P-2813	47.00	8.00	130.00	Open	21.66	1064.82	1064.82	0.00	0.00
7483	P-2814	47.00	8.00	130.00	Open	4.06	1056.91	1056.91	0.00	0.00
7484	P-2815	48.00	8.00	130.00	Open	0.96	1052.54	1052.54	0.00	0.00
7485	P-2816	49.00	8.00	130.00	Open	0.20	1216.97	1216.97	0.00	0.00
7487	P-2817	50.00	8.00	130.00	Open	-5.66	967.43	967.43	0.00	0.00
7488	P-2818	50.00	8.00	130.00	Open	26.64	1057.30	1057.30	0.00	0.00
7490	P-2819	59.00	8.00	130.00	Open	3.10	1057.28	1057.28	0.00	0.00
7492	P-2820	50.00	8.00	130.00	Open	29.40	1051.83	1051.82	0.00	0.00
7494	P-2821	50.00	8.00	130.00	Open	1.59	1059.99	1059.99	0.00	0.00
7495	P-2822	50.00	8.00	130.00	Open	120.12	1054.88	1054.86	0.02	0.00
7496	P-2823	51.00	8.00	130.00	Open	-7.92	1052.86	1052.86	0.00	0.00
7498	P-2824	51.00	8.00	130.00	Open	-11.60	1052.20	1052.20	0.00	0.00
7499	P-2825	51.00	8.00	130.00	Open	8.75	1322.92	1322.92	0.00	0.00
7500	P-2826	52.00	8.00	130.00	Open	-16.01	1051.74	1051.74	0.00	0.00
7502	P-2827	52.00	8.00	130.00	Open	-1.76	1051.74	1051.74	0.00	0.00
7503	P-2828	53.00	8.00	130.00	Open	19.50	1051.82	1051.82	0.00	0.00
7504	P-2829	53.00	8.00	130.00	Open	4.32	1052.11	1052.11	0.00	0.00
7506	P-2830	54.00	8.00	130.00	Open	-21.26	1052.88	1052.88	0.00	0.00
7507	P-2831	54.00	8.00	130.00	Open	0.43	1056.26	1056.26	0.00	0.00
7509	P-2832	54.00	8.00	130.00	Open	0.48	1052.86	1052.86	0.00	0.00
7512	P-2833	71.00	8.00	130.00	Open	-58.47	1051.21	1051.22	0.01	0.00
7513	P-2834	54.00	8.00	130.00	Open	5.56	1052.54	1052.54	0.00	0.00
7515	P-2835	57.00	8.00	130.00	Open	14.62	1053.00	1053.00	0.00	0.00
7516	P-2836	55.00	8.00	130.00	Open	-0.08	1053.01	1053.01	0.00	0.00
7518	P-2837	55.00	8.00	130.00	Open	0.08	1061.12	1061.12	0.00	0.00
7521	P-2838	56.00	8.00	130.00	Open	12.84	967.36	967.36	0.00	0.00
7522	P-2839	57.00	8.00	130.00	Open	4.09	1059.99	1059.99	0.00	0.00
7523	P-2840	57.00	8.00	130.00	Open	0.08	1061.12	1061.12	0.00	0.00
7525	P-2841	58.00	8.00	130.00	Open	10.28	1064.93	1064.93	0.00	0.00
7527	P-2842	58.00	8.00	130.00	Open	-19.36	1051.74	1051.74	0.00	0.00
7530	P-2843	58.00	8.00	130.00	Open	-0.83	1051.73	1051.73	0.00	0.00
7531	P-2844	58.00	8.00	130.00	Open	8.42	1216.97	1216.97	0.00	0.00
7532	P-2845	59.00	8.00	130.00	Open	1.16	1053.00	1053.00	0.00	0.00
7534	P-2846	59.00	8.00	130.00	Open	-51.89	1052.46	1052.46	0.00	0.00
7535	P-2847	60.00	8.00	130.00	Open	0.20	1218.15	1218.15	0.00	0.00
7537	P-2848	60.00	8.00	130.00	Open	-109.22	1053.22	1053.24	0.02	0.00
7539	P-2849	60.00	8.00	130.00	Open	10.68	1216.97	1216.97	0.00	0.00
7540	P-2850	61.00	8.00	130.00	Open	20.41	1064.83	1064.83	0.00	0.00
7542	P-2851	62.00	8.00	130.00	Open	0.99	1051.73	1051.73	0.00	0.00
7544	P-2852	62.00	8.00	130.00	Open	6.48	1059.99	1059.99	0.00	0.00
7545	P-2853	63.00	8.00	130.00	Open	0.08	1061.11	1061.11	0.00	0.00
7547	P-2854	63.00	8.00	130.00	Open	118.28	1052.38	1052.36	0.02	0.00
7549	P-2855	64.00	8.00	130.00	Open	-15.95	1057.30	1057.30	0.00	0.00
7550	P-2856	65.00	8.00	130.00	Open	33.73	1052.38	1052.38	0.00	0.00
7552	P-2857	65.00	8.00	130.00	Open	51.02	1052.02	1052.02	0.00	0.00
7554	P-2858	69.00	8.00	130.00	Open	3.50	1064.91	1064.91	0.00	0.00
7555	P-2859	65.00	8.00	130.00	Open	1.36	1057.53	1057.53	0.00	0.00
7556	P-2860	66.00	8.00	130.00	Open	0.63	1053.10	1053.10	0.00	0.00
7557	P-2861	67.00	8.00	130.00	Open	7.92	1064.93	1064.93	0.00	0.00
7558	P-2862	67.00	8.00	130.00	Open	30.09	1051.93	1051.93	0.00	0.00
7560	P-2863	68.00	8.00	130.00	Open	1.79	1056.39	1056.39	0.00	0.00
7562	P-2864	68.00	8.00	130.00	Open	20.49	1056.78	1056.78	0.00	0.00
7563	P-2865	68.00	8.00	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
7564	P-2866	68.00	8.00	130.00	Open	-34.84	1051.96	1051.96	0.00	0.00
7565	P-2867	68.00	8.00	130.00	Open	-4.66	1218.15	1218.15	0.00	0.00
7566	P-2868	68.00	8.00	130.00	Open	66.38	1060.46	1060.46	0.01	0.00
7567	P-2869	70.00	8.00	130.00	Open	8.09	1052.04	1052.04	0.00	0.00
7568	P-2870	68.00	8.00	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
7570	P-2871	69.00	8.00	130.00	Open	-42.10	1051.97	1051.97	0.00	0.00
7571	P-2872	70.00	8.00	130.00	Open	9.46	1057.30	1057.30	0.00	0.00
7572	P-2873	71.00	8.00	130.00	Open	-10.16	1051.74	1051.74	0.00	0.00
7573	P-2874	71.00	8.00	130.00	Open	0.08	1061.12	1061.12	0.00	0.00
7575	P-2875	72.00	8.00	130.00	Open	52.08	1052.26	1052.25	0.01	0.00
7577	P-2876	72.00	8.00	130.00	Open	-1.95	1052.68	1052.68	0.00	0.00
7579	P-2877	72.00	8.00	130.00	Open	5.06	1064.94	1064.93	0.00	0.00
7580	P-2878	73.00	8.00	130.00	Open	-2.94	1052.06	1052.06	0.00	0.00
7581	P-2879	73.00	8.00	130.00	Open	-4.34	1056.39	1056.39	0.00	0.00
7583	P-2880	74.00	8.00	130.00	Open	-14.37	1051.74	1051.74	0.00	0.00
7584	P-2881	74.00	8.00	130.00	Open	5.03	1052.12	1052.12	0.00	0.00
7585	P-2882	74.00	8.00	130.00	Open	1.16	1057.97	1057.97	0.00	0.00
7586	P-2883	79.00	8.00	130.00	Open	-71.95	1052.87	1052.88	0.01	0.00
7587	P-2884	76.00	8.00	130.00	Open	-0.48	1059.99	1059.99	0.00	0.00
7589	P-2885	76.00	8.00	130.00	Open	10.14	1052.80	1052.80	0.00	0.00
7590	P-2886	76.00	8.00	130.00	Open	6.19	1062.55	1062.55	0.00	0.00
7591	P-2887	77.00	8.00	130.00	Open	21.24	1052.54	1052.54	0.00	0.00
7592	P-2888	77.00	8.00	130.00	Open	7.24	1051.80	1051.80	0.00	0.00
7594	P-2889	78.00	8.00	130.00	Open	-38.09	1057.67	1057.68	0.00	0.00
7596	P-2890	78.00	8.00	130.00	Open	48.38	1217.82	1217.82	0.01	0.00
7598	P-2891	79.00	8.00	130.00	Open	0.38	1057.32	1057.32	0.00	0.00
7599	P-2892	79.00	8.00	130.00	Open	0.08	1059.01	1059.01	0.00	0.00
7601	P-2893	96.00	8.00	130.00	Open	0.37	1218.02	1218.02	0.00	0.00
7603	P-2894	134.00	8.00	130.00	Open	40.24	1052.02	1052.02	0.01	0.00
7604	P-2895	81.00	8.00	130.00	Open	-6.07	988.99	988.99	0.00	0.00
7605	P-2896	81.00	8.00	130.00	Open	27.11	1052.58	1052.58	0.00	0.00
7607	P-2897	81.00	8.00	130.00	Open	114.22	1052.54	1052.51	0.03	0.00
7609	P-2898	98.00	8.00	130.00	Open	-7.61	1052.72	1052.72	0.00	0.00
7611	P-2899	82.00	8.00	130.00	Open	67.88	1053.06	1053.05	0.01	0.00
7613	P-2900	84.00	8.00	130.00	Open	8.57	1051.74	1051.74	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7615	P-2901	85.00	8.00	130.00	Open	-48.30	1051.98	1051.98	0.01	0.00
7616	P-2902	86.00	8.00	130.00	Open	-0.48	1055.31	1055.31	0.00	0.00
7618	P-2903	86.00	8.00	130.00	Open	-113.93	1053.42	1053.45	0.03	0.00
7620	P-2904	87.00	8.00	130.00	Open	-14.40	1057.53	1057.53	0.00	0.00
7621	P-2905	89.00	8.00	130.00	Open	-13.16	1052.86	1052.86	0.00	0.00
7623	P-2906	89.00	8.00	130.00	Open	1.34	1218.03	1218.03	0.00	0.00
7624	P-2907	90.00	8.00	130.00	Open	-32.13	1051.99	1052.00	0.00	0.00
7625	P-2908	95.00	8.00	130.00	Open	30.59	993.49	993.48	0.00	0.00
7626	P-2909	90.00	8.00	130.00	Open	78.52	1053.82	1053.81	0.01	0.00
7627	P-2910	91.00	8.00	130.00	Open	6.66	1051.89	1051.89	0.00	0.00
7628	P-2911	91.00	8.00	130.00	Open	2.72	1218.02	1218.02	0.00	0.00
7630	P-2912	93.00	8.00	130.00	Open	-133.04	1051.89	1051.93	0.04	0.00
7631	P-2913	98.00	8.00	130.00	Open	-10.79	1055.31	1055.31	0.00	0.00
7635	P-2915	94.00	8.00	130.00	Open	0.20	1218.15	1218.15	0.00	0.00
7637	P-2916	94.00	8.00	130.00	Open	37.98	1052.11	1052.10	0.00	0.00
7638	P-2917	94.00	8.00	130.00	Open	0.08	1052.03	1052.03	0.00	0.00
7640	P-2918	95.00	8.00	130.00	Open	-0.15	1051.96	1051.96	0.00	0.00
7642	P-2919	95.00	8.00	130.00	Open	-12.51	1052.99	1052.99	0.00	0.00
7643	P-2920	97.00	8.00	130.00	Open	0.28	1051.83	1051.83	0.00	0.00
7645	P-2921	97.00	8.00	130.00	Open	30.07	1064.99	1064.99	0.00	0.00
7646	P-2922	97.00	8.00	130.00	Open	-21.67	1064.94	1064.94	0.00	0.00
7647	P-2923	98.00	8.00	130.00	Open	2.67	1051.98	1051.98	0.00	0.00
7648	P-2924	99.00	8.00	130.00	Open	28.92	1057.32	1057.32	0.00	0.00
7650	P-2925	100.00	8.00	130.00	Open	138.35	1056.11	1056.06	0.05	0.00
7651	P-2926	100.00	8.00	130.00	Open	9.69	1216.97	1216.97	0.00	0.00
7652	P-2927	100.00	8.00	130.00	Open	0.08	1052.08	1052.08	0.00	0.00
7654	P-2928	102.00	8.00	130.00	Open	4.96	1056.78	1056.78	0.00	0.00
7655	P-2929	102.00	8.00	130.00	Open	31.87	1218.35	1218.35	0.00	0.00
7656	P-2930	103.00	8.00	130.00	Open	9.56	1053.00	1053.00	0.00	0.00
7657	P-2931	103.00	8.00	130.00	Open	0.08	1064.82	1064.82	0.00	0.00
7659	P-2932	106.00	8.00	130.00	Open	-1.76	1051.98	1051.98	0.00	0.00
7660	P-2933	107.00	8.00	130.00	Open	-2.29	1051.73	1051.73	0.00	0.00
7662	P-2934	111.00	8.00	130.00	Open	5.97	1051.98	1051.98	0.00	0.00
7663	P-2935	108.00	8.00	130.00	Open	24.43	1051.83	1051.83	0.00	0.00
7664	P-2936	108.00	8.00	130.00	Open	-3.32	1053.01	1053.01	0.00	0.00
7665	P-2937	134.00	8.00	130.00	Open	0.68	1059.84	1059.84	0.00	0.00
7668	P-2938	109.00	8.00	130.00	Open	12.51	1052.51	1052.51	0.00	0.00
7669	P-2939	110.00	8.00	130.00	Open	27.76	1052.45	1052.45	0.00	0.00
7670	P-2940	115.00	8.00	130.00	Open	2.92	1056.20	1056.20	0.00	0.00
7672	P-2941	118.00	8.00	130.00	Open	-8.44	1057.53	1057.53	0.00	0.00
7673	P-2942	121.00	8.00	130.00	Open	-21.21	1051.85	1051.85	0.00	0.00
7674	P-2943	121.00	8.00	130.00	Open	-2.99	1051.96	1051.96	0.00	0.00
7675	P-2944	119.00	8.00	130.00	Open	15.44	1052.51	1052.51	0.00	0.00
7676	P-2945	120.00	8.00	130.00	Open	-0.48	1060.72	1060.72	0.00	0.00
7678	P-2946	122.00	8.00	130.00	Open	5.22	1051.98	1051.98	0.00	0.00
7679	P-2947	154.00	8.00	130.00	Open	-5.95	1057.28	1057.28	0.00	0.00
7680	P-2948	123.00	8.00	130.00	Open	3.32	1053.01	1053.01	0.00	0.00
7681	P-2949	124.00	8.00	130.00	Open	-0.29	988.98	988.98	0.00	0.00
7683	P-2950	126.00	8.00	130.00	Open	0.76	1064.91	1064.91	0.00	0.00
7684	P-2951	126.00	8.00	130.00	Open	3.40	1052.86	1052.86	0.00	0.00
7685	P-2952	126.00	8.00	130.00	Open	-33.89	1051.95	1051.96	0.00	0.00
7686	P-2953	129.00	8.00	130.00	Open	332.19	1054.63	1054.33	0.31	0.00
7687	P-2954	127.00	8.00	130.00	Open	5.56	1057.53	1057.53	0.00	0.00
7689	P-2955	129.00	8.00	130.00	Open	1.88	1052.50	1052.50	0.00	0.00
7691	P-2956	129.00	8.00	130.00	Open	0.08	1057.28	1057.28	0.00	0.00
7694	P-2957	129.00	8.00	130.00	Open	-12.24	1064.97	1064.97	0.00	0.00
7695	P-2958	134.00	8.00	130.00	Open	-27.00	1057.59	1057.59	0.00	0.00
7696	P-2959	136.00	8.00	130.00	Open	-66.11	1052.64	1052.66	0.02	0.00
7697	P-2960	137.00	8.00	130.00	Open	16.80	1064.98	1064.98	0.00	0.00
7698	P-2961	137.00	8.00	130.00	Open	16.42	967.37	967.37	0.00	0.00
7700	P-2962	138.00	8.00	130.00	Open	5.56	1054.67	1054.67	0.00	0.00
7702	P-2963	139.00	8.00	130.00	Open	8.30	1218.15	1218.15	0.00	0.00
7703	P-2964	139.00	8.00	130.00	Open	9.79	1053.48	1053.48	0.00	0.00
7704	P-2965	140.00	8.00	130.00	Open	1.11	1057.34	1057.34	0.00	0.00
7705	P-2966	142.00	8.00	130.00	Open	5.59	1057.97	1057.97	0.00	0.00
7707	P-2967	166.00	8.00	130.00	Open	7.58	1052.99	1052.99	0.00	0.00
4590	P-2968	4.00	6.10	130.00	Open	0.08	1061.15	1061.15	0.00	0.00
4592	P-2969	4.00	6.10	130.00	Open	-0.08	1052.39	1052.39	0.00	0.00
4594	P-2970	4.00	6.10	130.00	Open	0.48	1051.85	1051.85	0.00	0.00
4597	P-2971	4.00	6.10	130.00	Open	-1.08	1051.84	1051.84	0.00	0.00
4600	P-2972	5.00	6.10	130.00	Open	-0.37	1216.97	1216.97	0.00	0.00
4602	P-2973	5.00	6.10	130.00	Open	-1.28	1063.23	1063.23	0.00	0.00
4604	P-2974	5.00	6.10	130.00	Open	0.08	1061.48	1061.48	0.00	0.00
4606	P-2975	5.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
4608	P-2976	5.00	6.10	130.00	Open	0.88	1051.64	1051.64	0.00	0.00
4611	P-2977	5.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
4613	P-2978	5.00	6.10	130.00	Open	0.88	1051.85	1051.85	0.00	0.00
4616	P-2979	5.00	6.10	130.00	Open	-0.88	1051.92	1051.92	0.00	0.00
4618	P-2980	5.00	6.10	130.00	Open	-3.28	1322.91	1322.91	0.00	0.00
4620	P-2981	5.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
4622	P-2982	5.00	6.10	130.00	Open	0.08	1053.06	1053.06	0.00	0.00
4624	P-2983	5.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4626	P-2984	5.00	6.10	130.00	Open	-0.48	1056.91	1056.91	0.00	0.00
4629	P-2985	5.00	6.10	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
4632	P-2986	5.00	6.10	130.00	Open	-0.48	1051.83	1051.83	0.00	0.00
4635	P-2987	5.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
4637	P-2988	5.00	6.10	130.00	Open	-0.26	1322.91	1322.91	0.00	0.00
4639	P-2989	5.00	6.10	130.00	Open	0.48	981.48	981.48	0.00	0.00
4641	P-2990	5.00	6.10	130.00	Open	-0.08	1052.06	1052.06	0.00	0.00
4643	P-2991	5.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4645	P-2992	5.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
4647	P-2993	5.00	6.10	130.00	Open	0.72	1215.86	1215.86	0.00	0.00
4649	P-2994	5.00	6.10	130.00	Open	0.68	1053.00	1053.00	0.00	0.00
4651	P-2995	5.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4653	P-2996	5.00	6.10	130.00	Open	-0.48	1052.37	1052.37	0.00	0.00
4655	P-2997	5.00	6.10	130.00	Open	0.08	1052.10	1052.10	0.00	0.00
4657	P-2998	5.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4659	P-2999	5.00	6.10	130.00	Open	0.48	1057.32	1057.32	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4661	P-3000	5.00	6.10	130.00	Open	-1.28	1064.93	1064.93	0.00	0.00
4663	P-3001	5.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
4666	P-3002	5.00	6.10	130.00	Open	0.88	1053.00	1053.00	0.00	0.00
4669	P-3003	5.00	6.10	130.00	Open	0.08	1053.02	1053.02	0.00	0.00
4671	P-3004	5.00	6.10	130.00	Open	-1.68	1051.86	1051.86	0.00	0.00
4673	P-3005	5.00	6.10	130.00	Open	0.20	1218.21	1218.21	0.00	0.00
4675	P-3006	5.00	6.10	130.00	Open	-0.20	988.99	988.99	0.00	0.00
4678	P-3007	5.00	6.10	130.00	Open	0.48	1052.12	1052.12	0.00	0.00
4681	P-3008	5.00	6.10	130.00	Open	0.88	963.94	963.94	0.00	0.00
4683	P-3009	5.00	6.10	130.00	Open	1.48	1056.82	1056.82	0.00	0.00
4685	P-3010	5.00	6.10	130.00	Open	0.28	1052.04	1052.04	0.00	0.00
4687	P-3011	5.00	6.10	130.00	Open	0.48	1052.04	1052.04	0.00	0.00
4689	P-3012	5.00	6.10	130.00	Open	-0.28	1064.93	1064.93	0.00	0.00
4691	P-3013	5.00	6.10	130.00	Open	0.08	1056.81	1056.81	0.00	0.00
4693	P-3014	5.00	6.10	130.00	Open	-0.37	1216.97	1216.97	0.00	0.00
4695	P-3015	5.00	6.10	130.00	Open	-0.40	1322.95	1322.95	0.00	0.00
4697	P-3016	5.00	6.10	130.00	Open	-0.20	1217.94	1217.94	0.00	0.00
4699	P-3017	5.00	6.10	130.00	Open	-0.68	1051.89	1051.89	0.00	0.00
4701	P-3018	5.00	6.10	130.00	Open	0.88	1051.85	1051.85	0.00	0.00
4703	P-3019	5.00	6.10	130.00	Open	0.08	1061.33	1061.33	0.00	0.00
4705	P-3020	5.00	6.10	130.00	Open	0.28	981.48	981.48	0.00	0.00
4708	P-3021	5.00	6.10	130.00	Open	-0.08	981.49	981.49	0.00	0.00
4710	P-3022	5.00	6.10	130.00	Open	0.88	981.47	981.47	0.00	0.00
4712	P-3023	5.00	6.10	130.00	Open	-0.08	1052.08	1052.08	0.00	0.00
4714	P-3024	5.00	6.10	130.00	Open	-0.08	1052.04	1052.04	0.00	0.00
4716	P-3025	5.00	6.10	130.00	Open	-0.29	1217.76	1217.76	0.00	0.00
4719	P-3026	5.00	6.10	130.00	Open	0.08	1053.00	1053.00	0.00	0.00
4721	P-3027	5.00	6.10	130.00	Open	-0.08	1053.01	1053.01	0.00	0.00
4724	P-3028	5.00	6.10	130.00	Open	0.28	1051.89	1051.89	0.00	0.00
4727	P-3029	5.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4730	P-3030	5.00	6.10	130.00	Open	-1.08	1063.24	1063.24	0.00	0.00
4732	P-3031	5.00	6.10	130.00	Open	-0.20	1217.78	1217.78	0.00	0.00
4734	P-3032	5.00	6.10	130.00	Open	-0.08	1051.82	1051.82	0.00	0.00
4737	P-3033	5.00	6.10	130.00	Open	0.88	1052.79	1052.79	0.00	0.00
4739	P-3034	5.00	6.10	130.00	Open	0.48	1061.67	1061.67	0.00	0.00
4741	P-3035	5.00	6.10	130.00	Open	-0.72	1216.97	1216.97	0.00	0.00
4744	P-3036	5.00	6.10	130.00	Open	-0.11	1322.95	1322.95	0.00	0.00
4746	P-3037	5.00	6.10	130.00	Open	-1.08	1064.93	1064.93	0.00	0.00
4748	P-3038	5.00	6.10	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
4750	P-3039	5.00	6.10	130.00	Open	-0.08	1052.11	1052.11	0.00	0.00
4752	P-3040	5.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
4754	P-3041	5.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
4756	P-3042	5.00	6.10	130.00	Open	-0.68	1053.06	1053.06	0.00	0.00
4758	P-3043	5.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4760	P-3044	5.00	6.10	130.00	Open	0.48	1052.96	1052.96	0.00	0.00
4762	P-3045	5.00	6.10	130.00	Open	0.28	981.48	981.48	0.00	0.00
4764	P-3046	5.00	6.10	130.00	Open	-0.48	1051.85	1051.85	0.00	0.00
4767	P-3047	5.00	6.10	130.00	Open	0.68	1064.97	1064.97	0.00	0.00
4770	P-3048	5.00	6.10	130.00	Open	0.08	981.47	981.47	0.00	0.00
4772	P-3049	5.00	6.10	130.00	Open	-0.08	1063.11	1063.11	0.00	0.00
4774	P-3050	5.00	6.10	130.00	Open	-0.28	1064.93	1064.93	0.00	0.00
4776	P-3051	5.00	6.10	130.00	Open	0.08	1051.98	1051.98	0.00	0.00
4778	P-3052	6.00	6.10	130.00	Open	0.48	1057.53	1057.53	0.00	0.00
4781	P-3053	6.00	6.10	130.00	Open	0.48	1051.21	1051.21	0.00	0.00
4783	P-3054	6.00	6.10	130.00	Open	0.88	1064.98	1064.98	0.00	0.00
4785	P-3055	6.00	6.10	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
4788	P-3056	6.00	6.10	130.00	Open	-0.08	1063.20	1063.20	0.00	0.00
4791	P-3057	6.00	6.10	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
4793	P-3058	6.00	6.10	130.00	Open	0.48	1062.54	1062.54	0.00	0.00
4795	P-3059	6.00	6.10	130.00	Open	-0.48	1051.90	1051.90	0.00	0.00
4797	P-3060	6.00	6.10	130.00	Open	-0.28	1052.28	1052.28	0.00	0.00
4799	P-3061	6.00	6.10	130.00	Open	-0.08	1053.16	1053.16	0.00	0.00
4801	P-3062	6.00	6.10	130.00	Open	0.08	981.48	981.48	0.00	0.00
4803	P-3063	6.00	6.10	130.00	Open	0.08	1061.84	1061.84	0.00	0.00
4805	P-3064	6.00	6.10	130.00	Open	-0.88	1052.30	1052.30	0.00	0.00
4807	P-3065	6.00	6.10	130.00	Open	-0.08	1064.61	1064.61	0.00	0.00
4809	P-3066	6.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4811	P-3067	6.00	6.10	130.00	Open	-0.68	1064.93	1064.93	0.00	0.00
4813	P-3068	6.00	6.10	130.00	Open	0.08	1052.02	1052.02	0.00	0.00
4815	P-3069	6.00	6.10	130.00	Open	-0.68	1057.59	1057.59	0.00	0.00
4817	P-3070	6.00	6.10	130.00	Open	-0.08	1052.32	1052.32	0.00	0.00
4819	P-3071	6.00	6.10	130.00	Open	0.08	1052.26	1052.26	0.00	0.00
4822	P-3072	6.00	6.10	130.00	Open	-0.28	1052.09	1052.09	0.00	0.00
4824	P-3073	6.00	6.10	130.00	Open	0.08	1052.04	1052.04	0.00	0.00
4827	P-3074	6.00	6.10	130.00	Open	0.48	1051.79	1051.79	0.00	0.00
4830	P-3075	6.00	6.10	130.00	Open	-0.08	1063.11	1063.11	0.00	0.00
4832	P-3076	6.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
4835	P-3077	6.00	6.10	130.00	Open	-0.08	1052.26	1052.26	0.00	0.00
4837	P-3078	6.00	6.10	130.00	Open	0.28	1052.02	1052.02	0.00	0.00
4840	P-3079	6.00	6.10	130.00	Open	0.08	1064.94	1064.94	0.00	0.00
4842	P-3080	6.00	6.10	130.00	Open	0.08	1052.64	1052.64	0.00	0.00
4844	P-3081	6.00	6.10	130.00	Open	-1.08	1053.04	1053.04	0.00	0.00
4847	P-3082	6.00	6.10	130.00	Open	-0.08	1056.91	1056.91	0.00	0.00
4849	P-3083	6.00	6.10	130.00	Open	-0.28	1052.56	1052.56	0.00	0.00
4851	P-3084	6.00	6.10	130.00	Open	0.63	1218.03	1218.03	0.00	0.00
4854	P-3085	6.00	6.10	130.00	Open	-0.28	1052.15	1052.15	0.00	0.00
4856	P-3086	6.00	6.10	130.00	Open	-0.08	1063.04	1063.04	0.00	0.00
4858	P-3087	6.00	6.10	130.00	Open	0.08	1057.29	1057.29	0.00	0.00
4861	P-3088	6.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
4863	P-3089	6.00	6.10	130.00	Open	-0.48	1061.13	1061.13	0.00	0.00
4865	P-3090	6.00	6.10	130.00	Open	-0.48	1051.73	1051.73	0.00	0.00
4867	P-3091	6.00	6.10	130.00	Open	-0.28	1062.85	1062.85	0.00	0.00
4869	P-3092	6.00	6.10	130.00	Open	-0.88	1063.82	1063.82	0.00	0.00
4871	P-3093	6.00	6.10	130.00	Open	0.08	1053.00	1053.00	0.00	0.00
4873	P-3094	6.00	6.10	130.00	Open	0.28	1053.06	1053.06	0.00	0.00
4875	P-3095	6.00	6.10	130.00	Open	-0.08	1051.83	1051.83	0.00	0.00
4878	P-3096	6.00	6.10	130.00	Open	-0.08	1052.85	1052.85	0.00	0.00
4881	P-3097	6.00	6.10	130.00	Open	0.88	1052.46	1052.46	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
4884	P-3098	6.00	6.10	130.00	Open	0.88	1057.64	1057.64	0.00	0.00
4887	P-3099	6.00	6.10	130.00	Open	0.28	1057.29	1057.29	0.00	0.00
4890	P-3100	6.00	6.10	130.00	Open	0.48	1053.82	1053.82	0.00	0.00
4893	P-3101	6.00	6.10	130.00	Open	-0.11	1322.93	1322.93	0.00	0.00
4895	P-3102	6.00	6.10	130.00	Open	-0.68	1053.16	1053.16	0.00	0.00
4897	P-3103	6.00	6.10	130.00	Open	-0.11	1322.94	1322.94	0.00	0.00
4899	P-3104	6.00	6.10	130.00	Open	-0.28	1062.85	1062.85	0.00	0.00
4901	P-3105	6.00	6.10	130.00	Open	-0.48	1059.79	1059.79	0.00	0.00
4903	P-3106	6.00	6.10	130.00	Open	0.29	1218.14	1218.14	0.00	0.00
4906	P-3107	6.00	6.10	130.00	Open	-0.08	1060.60	1060.60	0.00	0.00
4908	P-3108	6.00	6.10	130.00	Open	0.68	1051.76	1051.76	0.00	0.00
4910	P-3109	6.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4912	P-3110	6.00	6.10	130.00	Open	0.48	1053.84	1053.84	0.00	0.00
4914	P-3111	6.00	6.10	130.00	Open	0.28	1052.24	1052.24	0.00	0.00
4917	P-3112	6.00	6.10	130.00	Open	3.29	1053.02	1053.02	0.00	0.00
4920	P-3113	6.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
4922	P-3114	6.00	6.10	130.00	Open	-0.08	1051.84	1051.84	0.00	0.00
4924	P-3115	6.00	6.10	130.00	Open	0.08	1057.30	1057.30	0.00	0.00
4927	P-3116	6.00	6.10	130.00	Open	0.08	1053.80	1053.80	0.00	0.00
4929	P-3117	6.00	6.10	130.00	Open	0.08	1057.33	1057.33	0.00	0.00
4932	P-3118	6.00	6.10	130.00	Open	0.48	1056.92	1056.92	0.00	0.00
4935	P-3119	6.00	6.10	130.00	Open	0.08	1052.19	1052.19	0.00	0.00
4938	P-3120	6.00	6.10	130.00	Open	-0.20	1216.98	1216.98	0.00	0.00
4940	P-3121	6.00	6.10	130.00	Open	0.88	1051.75	1051.75	0.00	0.00
4942	P-3122	6.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
4944	P-3123	6.00	6.10	130.00	Open	0.08	1054.93	1054.93	0.00	0.00
4946	P-3124	6.00	6.10	130.00	Open	1.28	1052.12	1052.12	0.00	0.00
4949	P-3125	6.00	6.10	130.00	Open	1.08	1062.43	1062.43	0.00	0.00
4951	P-3126	6.00	6.10	130.00	Open	0.08	1051.10	1051.10	0.00	0.00
4954	P-3127	6.00	6.10	130.00	Open	0.88	1057.49	1057.49	0.00	0.00
4956	P-3128	6.00	6.10	130.00	Open	0.28	1057.29	1057.29	0.00	0.00
4959	P-3129	6.00	6.10	130.00	Open	-0.48	1064.93	1064.93	0.00	0.00
4961	P-3130	6.00	6.10	130.00	Open	-0.48	994.76	994.76	0.00	0.00
4963	P-3131	6.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
4966	P-3132	6.00	6.10	130.00	Open	-0.48	1053.98	1053.98	0.00	0.00
4969	P-3133	6.00	6.10	130.00	Open	-0.11	1322.92	1322.92	0.00	0.00
4971	P-3134	6.00	6.10	130.00	Open	-0.28	1056.91	1056.91	0.00	0.00
4973	P-3135	6.00	6.10	130.00	Open	0.08	1052.54	1052.54	0.00	0.00
4975	P-3136	6.00	6.10	130.00	Open	0.28	1051.27	1051.27	0.00	0.00
4977	P-3137	6.00	6.10	130.00	Open	0.28	1056.91	1056.91	0.00	0.00
4979	P-3138	6.00	6.10	130.00	Open	0.08	1052.80	1052.80	0.00	0.00
4981	P-3139	6.00	6.10	130.00	Open	0.08	1051.98	1051.98	0.00	0.00
4983	P-3140	6.00	6.10	130.00	Open	1.28	1051.88	1051.88	0.00	0.00
4986	P-3141	6.00	6.10	130.00	Open	-0.48	1064.82	1064.82	0.00	0.00
4989	P-3142	6.00	6.10	130.00	Open	0.68	1064.81	1064.81	0.00	0.00
4992	P-3143	6.00	6.10	130.00	Open	0.88	1061.38	1061.38	0.00	0.00
4994	P-3144	6.00	6.10	130.00	Open	0.28	1052.44	1052.44	0.00	0.00
4997	P-3145	6.00	6.10	130.00	Open	-0.48	1062.81	1062.81	0.00	0.00
5000	P-3146	6.00	6.10	130.00	Open	1.68	1059.87	1059.87	0.00	0.00
5002	P-3147	6.00	6.10	130.00	Open	-0.08	1061.13	1061.13	0.00	0.00
5004	P-3148	6.00	6.10	130.00	Open	0.48	1052.37	1052.37	0.00	0.00
5006	P-3149	6.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
5008	P-3150	6.00	6.10	130.00	Open	-0.28	1053.00	1053.00	0.00	0.00
5011	P-3151	6.00	6.10	130.00	Open	0.08	1063.19	1063.19	0.00	0.00
5013	P-3152	6.00	6.10	130.00	Open	2.29	1056.79	1056.79	0.00	0.00
5015	P-3153	6.00	6.10	130.00	Open	-0.08	1052.03	1052.03	0.00	0.00
5017	P-3154	6.00	6.10	130.00	Open	-0.08	1059.82	1059.82	0.00	0.00
5020	P-3155	6.00	6.10	130.00	Open	-0.48	1052.99	1052.99	0.00	0.00
5023	P-3156	6.00	6.10	130.00	Open	0.63	1218.03	1218.03	0.00	0.00
5026	P-3157	6.00	6.10	130.00	Open	-0.48	1061.13	1061.13	0.00	0.00
5028	P-3158	6.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
5031	P-3159	6.00	6.10	130.00	Open	1.08	1064.97	1064.97	0.00	0.00
5034	P-3160	6.00	6.10	130.00	Open	0.20	1217.85	1217.85	0.00	0.00
5036	P-3161	6.00	6.10	130.00	Open	0.68	1052.79	1052.79	0.00	0.00
5038	P-3162	6.00	6.10	130.00	Open	0.48	1051.74	1051.74	0.00	0.00
5041	P-3163	6.00	6.10	130.00	Open	1.08	1053.01	1053.01	0.00	0.00
5044	P-3164	6.00	6.10	130.00	Open	0.28	1052.17	1052.17	0.00	0.00
5047	P-3165	6.00	6.10	130.00	Open	0.08	1052.20	1052.20	0.00	0.00
5050	P-3166	7.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
5052	P-3167	7.00	6.10	130.00	Open	0.48	1057.59	1057.59	0.00	0.00
5055	P-3168	7.00	6.10	130.00	Open	-0.08	1062.99	1062.99	0.00	0.00
5057	P-3169	7.00	6.10	130.00	Open	-0.08	1052.13	1052.13	0.00	0.00
5059	P-3170	7.00	6.10	130.00	Open	0.08	1052.80	1052.80	0.00	0.00
5061	P-3171	7.00	6.10	130.00	Open	0.37	1218.03	1218.03	0.00	0.00
5064	P-3172	7.00	6.10	130.00	Open	2.09	981.48	981.48	0.00	0.00
5066	P-3173	7.00	6.10	130.00	Open	-0.08	1061.12	1061.12	0.00	0.00
5309	P-3174	7.00	6.10	130.00	Open	-0.68	1053.00	1053.00	0.00	0.00
5311	P-3175	8.00	6.10	130.00	Open	0.08	1060.49	1060.49	0.00	0.00
5313	P-3176	8.00	6.10	130.00	Open	0.88	1051.84	1051.84	0.00	0.00
5316	P-3177	8.00	6.10	130.00	Open	-0.08	1062.90	1062.90	0.00	0.00
5318	P-3178	8.00	6.10	130.00	Open	-0.68	1064.82	1064.82	0.00	0.00
5321	P-3179	8.00	6.10	130.00	Open	-0.08	1064.98	1064.98	0.00	0.00
5324	P-3180	8.00	6.10	130.00	Open	0.28	1057.28	1057.28	0.00	0.00
5327	P-3181	8.00	6.10	130.00	Open	0.08	1052.45	1052.45	0.00	0.00
5330	P-3182	8.00	6.10	130.00	Open	-0.20	1217.95	1217.95	0.00	0.00
5332	P-3183	8.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5334	P-3184	8.00	6.10	130.00	Open	-0.08	1062.56	1062.56	0.00	0.00
5336	P-3185	8.00	6.10	130.00	Open	-0.88	1055.31	1055.31	0.00	0.00
5339	P-3186	8.00	6.10	130.00	Open	-0.48	1059.74	1059.74	0.00	0.00
5341	P-3187	8.00	6.10	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
5344	P-3188	8.00	6.10	130.00	Open	0.48	1052.54	1052.54	0.00	0.00
5346	P-3189	8.00	6.10	130.00	Open	0.28	1052.09	1052.09	0.00	0.00
5348	P-3190	8.00	6.10	130.00	Open	-0.88	1061.11	1061.11	0.00	0.00
5351	P-3191	8.00	6.10	130.00	Open	0.48	1056.78	1056.78	0.00	0.00
5353	P-3192	8.00	6.10	130.00	Open	0.28	1054.67	1054.67	0.00	0.00
5355	P-3193	8.00	6.10	130.00	Open	-0.20	1216.97	1216.97	0.00	0.00
5358	P-3194	8.00	6.10	130.00	Open	-0.08	1055.31	1055.31	0.00	0.00
5361	P-3195	8.00	6.10	130.00	Open	-0.08	1052.68	1052.68	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5363	P-3196	8.00	6.10	130.00	Open	-0.08	1055.31	1055.31	0.00	0.00
5365	P-3197	8.00	6.10	130.00	Open	0.08	1057.53	1057.53	0.00	0.00
5368	P-3198	8.00	6.10	130.00	Open	0.08	1051.80	1051.80	0.00	0.00
5370	P-3199	8.00	6.10	130.00	Open	-0.48	1053.09	1053.09	0.00	0.00
5373	P-3200	8.00	6.10	130.00	Open	0.08	1064.95	1064.95	0.00	0.00
5375	P-3201	8.00	6.10	130.00	Open	-0.48	1064.81	1064.81	0.00	0.00
5378	P-3202	8.00	6.10	130.00	Open	0.08	1056.31	1056.31	0.00	0.00
5381	P-3203	8.00	6.10	130.00	Open	0.88	1051.74	1051.74	0.00	0.00
5384	P-3204	8.00	6.10	130.00	Open	-0.88	1054.26	1054.26	0.00	0.00
5387	P-3205	8.00	6.10	130.00	Open	0.08	1064.94	1064.94	0.00	0.00
5389	P-3206	8.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
5391	P-3207	8.00	6.10	130.00	Open	-0.83	1322.91	1322.91	0.00	0.00
5393	P-3208	8.00	6.10	130.00	Open	1.28	1052.99	1052.99	0.00	0.00
5395	P-3209	8.00	6.10	130.00	Open	3.49	1051.89	1051.89	0.00	0.00
5398	P-3210	8.00	6.10	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
5400	P-3211	8.00	6.10	130.00	Open	0.48	1053.18	1053.18	0.00	0.00
5403	P-3212	8.00	6.10	130.00	Open	-0.28	1052.79	1052.79	0.00	0.00
5405	P-3213	8.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
5407	P-3214	8.00	6.10	130.00	Open	-0.68	1052.72	1052.72	0.00	0.00
5409	P-3215	8.00	6.10	130.00	Open	-0.08	1054.24	1054.24	0.00	0.00
5411	P-3216	8.00	6.10	130.00	Open	0.28	1053.01	1053.01	0.00	0.00
5413	P-3217	8.00	6.10	130.00	Open	1.08	1051.73	1051.73	0.00	0.00
5415	P-3218	8.00	6.10	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
5417	P-3219	8.00	6.10	130.00	Open	0.48	1053.38	1053.38	0.00	0.00
5420	P-3220	8.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
5422	P-3221	8.00	6.10	130.00	Open	0.08	1052.56	1052.56	0.00	0.00
5425	P-3222	8.00	6.10	130.00	Open	-0.08	1053.03	1053.03	0.00	0.00
5427	P-3223	8.00	6.10	130.00	Open	0.08	1053.11	1053.11	0.00	0.00
5429	P-3224	8.00	6.10	130.00	Open	0.48	1052.64	1052.64	0.00	0.00
5431	P-3225	8.00	6.10	130.00	Open	0.48	1064.90	1064.90	0.00	0.00
5434	P-3226	8.00	6.10	130.00	Open	-0.68	1064.82	1064.82	0.00	0.00
5436	P-3227	8.00	6.10	130.00	Open	-0.40	1322.92	1322.92	0.00	0.00
5438	P-3228	8.00	6.10	130.00	Open	0.28	1052.64	1052.64	0.00	0.00
5441	P-3229	8.00	6.10	130.00	Open	-1.28	1059.76	1059.76	0.00	0.00
5443	P-3230	8.00	6.10	130.00	Open	0.48	1052.79	1052.79	0.00	0.00
5445	P-3231	8.00	6.10	130.00	Open	-0.28	1055.31	1055.31	0.00	0.00
5447	P-3232	8.00	6.10	130.00	Open	0.48	1052.66	1052.66	0.00	0.00
5449	P-3233	8.00	6.10	130.00	Open	0.08	1054.02	1054.02	0.00	0.00
5451	P-3234	8.00	6.10	130.00	Open	0.08	1051.71	1051.71	0.00	0.00
5453	P-3235	8.00	6.10	130.00	Open	0.28	1057.32	1057.32	0.00	0.00
5456	P-3236	8.00	6.10	130.00	Open	0.48	1051.84	1051.84	0.00	0.00
5459	P-3237	8.00	6.10	130.00	Open	1.48	1052.12	1052.12	0.00	0.00
5461	P-3238	8.00	6.10	130.00	Open	-0.88	1064.93	1064.93	0.00	0.00
5464	P-3239	8.00	6.10	130.00	Open	-0.68	1064.93	1064.93	0.00	0.00
5467	P-3240	8.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
5469	P-3241	8.00	6.10	130.00	Open	0.88	1051.72	1051.72	0.00	0.00
5471	P-3242	8.00	6.10	130.00	Open	0.08	1059.86	1059.86	0.00	0.00
5473	P-3243	8.00	6.10	130.00	Open	0.68	1052.04	1052.04	0.00	0.00
5476	P-3244	8.00	6.10	130.00	Open	0.88	1057.28	1057.28	0.00	0.00
5478	P-3245	8.00	6.10	130.00	Open	0.28	1051.28	1051.28	0.00	0.00
5480	P-3246	8.00	6.10	130.00	Open	1.28	1055.46	1055.46	0.00	0.00
5482	P-3247	8.00	6.10	130.00	Open	0.48	1051.93	1051.93	0.00	0.00
5485	P-3248	8.00	6.10	130.00	Open	0.68	1051.99	1051.99	0.00	0.00
5487	P-3249	8.00	6.10	130.00	Open	-0.68	1064.93	1064.93	0.00	0.00
5489	P-3250	8.00	6.10	130.00	Open	-0.68	1052.35	1052.35	0.00	0.00
5491	P-3251	8.00	6.10	130.00	Open	-0.20	1218.32	1218.32	0.00	0.00
5493	P-3252	8.00	6.10	130.00	Open	-0.28	1053.56	1053.56	0.00	0.00
5495	P-3253	8.00	6.10	130.00	Open	0.28	1064.97	1064.97	0.00	0.00
5497	P-3254	8.00	6.10	130.00	Open	0.68	1052.11	1052.11	0.00	0.00
5499	P-3255	8.00	6.10	130.00	Open	0.48	1054.25	1054.25	0.00	0.00
5501	P-3256	8.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
5503	P-3257	8.00	6.10	130.00	Open	-1.48	1059.00	1059.00	0.00	0.00
5505	P-3258	8.00	6.10	130.00	Open	0.68	1052.03	1052.03	0.00	0.00
5508	P-3259	8.00	6.10	130.00	Open	0.29	1218.68	1218.68	0.00	0.00
5510	P-3260	8.00	6.10	130.00	Open	0.08	1057.63	1057.63	0.00	0.00
5512	P-3261	8.00	6.10	130.00	Open	-0.88	1051.84	1051.84	0.00	0.00
5515	P-3262	8.00	6.10	130.00	Open	0.48	1052.43	1052.43	0.00	0.00
5517	P-3263	8.00	6.10	130.00	Open	0.48	1058.04	1058.04	0.00	0.00
5519	P-3264	8.00	6.10	130.00	Open	0.28	1051.80	1051.80	0.00	0.00
5522	P-3265	8.00	6.10	130.00	Open	0.48	1054.97	1054.97	0.00	0.00
5525	P-3266	8.00	6.10	130.00	Open	0.48	1051.80	1051.80	0.00	0.00
5528	P-3267	8.00	6.10	130.00	Open	0.08	1052.20	1052.20	0.00	0.00
5531	P-3268	8.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
5533	P-3269	8.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
5535	P-3270	8.00	6.10	130.00	Open	-0.28	1053.70	1053.70	0.00	0.00
5537	P-3271	8.00	6.10	130.00	Open	0.48	1053.81	1053.81	0.00	0.00
5539	P-3272	8.00	6.10	130.00	Open	1.28	1051.78	1051.78	0.00	0.00
5541	P-3273	8.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5543	P-3274	8.00	6.10	130.00	Open	-0.08	1052.48	1052.48	0.00	0.00
5545	P-3275	8.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
5547	P-3276	8.00	6.10	130.00	Open	0.48	1052.31	1052.31	0.00	0.00
5550	P-3277	8.00	6.10	130.00	Open	0.48	1056.96	1056.96	0.00	0.00
5552	P-3278	8.00	6.10	130.00	Open	0.08	1051.78	1051.78	0.00	0.00
5554	P-3279	8.00	6.10	130.00	Open	-1.28	1056.76	1056.76	0.00	0.00
5556	P-3280	8.00	6.10	130.00	Open	1.28	1060.72	1060.72	0.00	0.00
5559	P-3281	8.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
5562	P-3282	8.00	6.10	130.00	Open	1.88	1052.12	1052.12	0.00	0.00
5565	P-3283	8.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5568	P-3284	8.00	6.10	130.00	Open	-0.20	1217.82	1217.82	0.00	0.00
5570	P-3285	8.00	6.10	130.00	Open	0.08	1052.03	1052.03	0.00	0.00
5572	P-3286	8.00	6.10	130.00	Open	0.88	1051.40	1051.40	0.00	0.00
5574	P-3287	8.00	6.10	130.00	Open	0.28	1052.06	1052.06	0.00	0.00
5576	P-3288	8.00	6.10	130.00	Open	0.48	1051.87	1051.87	0.00	0.00
5578	P-3289	8.00	6.10	130.00	Open	-0.20	1218.07	1218.07	0.00	0.00
5580	P-3290	8.00	6.10	130.00	Open	1.28	1060.74	1060.74	0.00	0.00
5582	P-3291	8.00	6.10	130.00	Open	0.28	1064.94	1064.94	0.00	0.00
5584	P-3292	8.00	6.10	130.00	Open	-0.48	1064.93	1064.93	0.00	0.00
5587	P-3293	8.00	6.10	130.00	Open	0.48	1052.53	1052.53	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
5590	P-3294	8.00	6.10	130.00	Open	0.48	1056.82	1056.82	0.00	0.00
5592	P-3295	8.00	6.10	130.00	Open	0.48	1052.01	1052.01	0.00	0.00
5594	P-3296	9.00	6.10	130.00	Open	0.08	1051.93	1051.93	0.00	0.00
5597	P-3297	9.00	6.10	130.00	Open	0.88	1051.74	1051.74	0.00	0.00
5600	P-3298	9.00	6.10	130.00	Open	0.48	1051.94	1051.94	0.00	0.00
5603	P-3299	9.00	6.10	130.00	Open	0.46	1218.03	1218.03	0.00	0.00
5605	P-3300	9.00	6.10	130.00	Open	-4.42	1217.88	1217.88	0.00	0.00
5607	P-3301	9.00	6.10	130.00	Open	-0.48	1055.83	1055.83	0.00	0.00
5609	P-3302	9.00	6.10	130.00	Open	0.88	1064.91	1064.91	0.00	0.00
5611	P-3303	9.00	6.10	130.00	Open	-0.48	1064.93	1064.93	0.00	0.00
5614	P-3304	9.00	6.10	130.00	Open	0.28	1056.25	1056.25	0.00	0.00
5616	P-3305	9.00	6.10	130.00	Open	-0.88	1059.58	1059.58	0.00	0.00
5618	P-3306	9.00	6.10	130.00	Open	0.08	1052.56	1052.56	0.00	0.00
5620	P-3307	9.00	6.10	130.00	Open	0.08	1057.13	1057.13	0.00	0.00
5622	P-3308	9.00	6.10	130.00	Open	0.88	1051.74	1051.74	0.00	0.00
5625	P-3309	9.00	6.10	130.00	Open	0.48	1056.39	1056.39	0.00	0.00
5628	P-3310	9.00	6.10	130.00	Open	0.08	1052.36	1052.36	0.00	0.00
5631	P-3311	9.00	6.10	130.00	Open	-0.08	1058.41	1058.41	0.00	0.00
5633	P-3312	9.00	6.10	130.00	Open	0.08	1055.08	1055.08	0.00	0.00
5635	P-3313	9.00	6.10	130.00	Open	1.08	1051.87	1051.87	0.00	0.00
5637	P-3314	9.00	6.10	130.00	Open	0.08	1054.67	1054.67	0.00	0.00
5640	P-3315	9.00	6.10	130.00	Open	0.48	1052.34	1052.34	0.00	0.00
5642	P-3316	9.00	6.10	130.00	Open	-0.20	1218.02	1218.02	0.00	0.00
5645	P-3317	9.00	6.10	130.00	Open	0.08	1056.91	1056.91	0.00	0.00
5648	P-3318	9.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5650	P-3319	9.00	6.10	130.00	Open	0.20	1218.27	1218.27	0.00	0.00
5653	P-3320	9.00	6.10	130.00	Open	0.48	1056.20	1056.20	0.00	0.00
5656	P-3321	9.00	6.10	130.00	Open	0.68	1061.37	1061.37	0.00	0.00
5659	P-3322	9.00	6.10	130.00	Open	1.48	1052.09	1052.09	0.00	0.00
5662	P-3323	9.00	6.10	130.00	Open	1.08	1052.98	1052.98	0.00	0.00
5664	P-3324	9.00	6.10	130.00	Open	0.48	1056.64	1056.64	0.00	0.00
5666	P-3325	9.00	6.10	130.00	Open	0.28	1052.04	1052.04	0.00	0.00
5668	P-3326	9.00	6.10	130.00	Open	0.29	1218.03	1218.03	0.00	0.00
5670	P-3327	9.00	6.10	130.00	Open	-0.88	1062.81	1062.81	0.00	0.00
5673	P-3328	9.00	6.10	130.00	Open	0.88	1051.86	1051.86	0.00	0.00
5675	P-3329	9.00	6.10	130.00	Open	-0.08	1059.82	1059.82	0.00	0.00
5677	P-3330	9.00	6.10	130.00	Open	-0.08	1064.87	1064.87	0.00	0.00
5680	P-3331	9.00	6.10	130.00	Open	-0.48	1060.74	1060.74	0.00	0.00
5682	P-3332	9.00	6.10	130.00	Open	0.28	1051.93	1051.93	0.00	0.00
5684	P-3333	9.00	6.10	130.00	Open	-1.08	1051.92	1051.92	0.00	0.00
5686	P-3334	9.00	6.10	130.00	Open	0.88	1056.69	1056.69	0.00	0.00
5688	P-3335	9.00	6.10	130.00	Open	-2.09	1061.11	1061.11	0.00	0.00
5691	P-3336	9.00	6.10	130.00	Open	0.28	1051.81	1051.81	0.00	0.00
5694	P-3337	9.00	6.10	130.00	Open	0.08	1052.53	1052.53	0.00	0.00
5696	P-3338	9.00	6.10	130.00	Open	-0.48	1064.98	1064.98	0.00	0.00
5698	P-3339	9.00	6.10	130.00	Open	0.48	1052.36	1052.36	0.00	0.00
5701	P-3340	9.00	6.10	130.00	Open	0.28	1057.28	1057.28	0.00	0.00
5704	P-3341	9.00	6.10	130.00	Open	0.08	1057.78	1057.78	0.00	0.00
5706	P-3342	9.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
5708	P-3343	9.00	6.10	130.00	Open	-0.08	1053.86	1053.86	0.00	0.00
5710	P-3344	9.00	6.10	130.00	Open	0.28	1060.46	1060.46	0.00	0.00
5713	P-3345	9.00	6.10	130.00	Open	0.08	1051.35	1051.35	0.00	0.00
5715	P-3346	9.00	6.10	130.00	Open	1.08	1057.28	1057.28	0.00	0.00
5718	P-3347	9.00	6.10	130.00	Open	0.48	1057.33	1057.33	0.00	0.00
5720	P-3348	9.00	6.10	130.00	Open	0.48	1051.79	1051.79	0.00	0.00
5722	P-3349	9.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
5725	P-3350	9.00	6.10	130.00	Open	-0.08	1064.82	1064.82	0.00	0.00
5728	P-3351	9.00	6.10	130.00	Open	-0.11	1322.96	1322.96	0.00	0.00
5730	P-3352	9.00	6.10	130.00	Open	0.68	1057.28	1057.28	0.00	0.00
5733	P-3353	9.00	6.10	130.00	Open	0.28	1052.74	1052.74	0.00	0.00
5735	P-3354	9.00	6.10	130.00	Open	-0.88	1051.82	1051.82	0.00	0.00
5738	P-3355	9.00	6.10	130.00	Open	-0.48	1051.85	1051.85	0.00	0.00
5740	P-3356	9.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
5742	P-3357	9.00	6.10	130.00	Open	0.08	1052.03	1052.03	0.00	0.00
5744	P-3358	9.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
5747	P-3359	9.00	6.10	130.00	Open	0.08	1058.71	1058.71	0.00	0.00
5749	P-3360	9.00	6.10	130.00	Open	0.20	1218.28	1218.28	0.00	0.00
5752	P-3361	9.00	6.10	130.00	Open	0.08	1064.88	1064.88	0.00	0.00
5754	P-3362	9.00	6.10	130.00	Open	-0.88	1059.87	1059.87	0.00	0.00
5756	P-3363	9.00	6.10	130.00	Open	-0.48	1061.87	1061.87	0.00	0.00
5759	P-3364	9.00	6.10	130.00	Open	0.48	1052.56	1052.56	0.00	0.00
5762	P-3365	9.00	6.10	130.00	Open	0.46	1216.30	1216.30	0.00	0.00
5764	P-3366	9.00	6.10	130.00	Open	0.08	1058.06	1058.06	0.00	0.00
5766	P-3367	9.00	6.10	130.00	Open	0.28	1056.17	1056.17	0.00	0.00
5768	P-3368	9.00	6.10	130.00	Open	-0.08	1064.92	1064.92	0.00	0.00
5770	P-3369	9.00	6.10	130.00	Open	0.48	1057.43	1057.43	0.00	0.00
5772	P-3370	9.00	6.10	130.00	Open	-0.28	1061.11	1061.11	0.00	0.00
5775	P-3371	9.00	6.10	130.00	Open	-0.08	1052.45	1052.45	0.00	0.00
5777	P-3372	9.00	6.10	130.00	Open	-0.08	1059.09	1059.09	0.00	0.00
5779	P-3373	9.00	6.10	130.00	Open	0.08	1064.91	1064.91	0.00	0.00
5782	P-3374	9.00	6.10	130.00	Open	0.68	1053.01	1053.01	0.00	0.00
5784	P-3375	9.00	6.10	130.00	Open	0.68	1052.99	1052.99	0.00	0.00
5786	P-3376	9.00	6.10	130.00	Open	0.08	1053.00	1053.00	0.00	0.00
6749	P-3377	14.00	6.10	130.00	Open	0.28	1056.26	1056.26	0.00	0.00
6752	P-3378	14.00	6.10	130.00	Open	0.48	1053.73	1053.73	0.00	0.00
6754	P-3379	14.00	6.10	130.00	Open	0.88	1057.13	1057.13	0.00	0.00
6756	P-3380	14.00	6.10	130.00	Open	0.68	1057.87	1057.87	0.00	0.00
6758	P-3381	14.00	6.10	130.00	Open	0.08	1053.10	1053.10	0.00	0.00
6761	P-3382	14.00	6.10	130.00	Open	1.08	1058.01	1058.01	0.00	0.00
6763	P-3383	14.00	6.10	130.00	Open	0.48	1057.53	1057.53	0.00	0.00
6766	P-3384	14.00	6.10	130.00	Open	0.48	1052.09	1052.09	0.00	0.00
6768	P-3385	14.00	6.10	130.00	Open	0.48	1057.33	1057.33	0.00	0.00
6770	P-3386	14.00	6.10	130.00	Open	-1.08	1059.87	1059.87	0.00	0.00
6772	P-3387	14.00	6.10	130.00	Open	0.28	1052.68	1052.68	0.00	0.00
6775	P-3388	14.00	6.10	130.00	Open	0.88	1055.97	1055.97	0.00	0.00
6778	P-3389	14.00	6.10	130.00	Open	1.88	1051.73	1051.73	0.00	0.00
6781	P-3390	14.00	6.10	130.00	Open	-0.08	1052.71	1052.71	0.00	0.00
6783	P-3391	14.00	6.10	130.00	Open	0.28	1052.50	1052.50	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
6786	P-3392	14.00	6.10	130.00	Open	0.48	1057.43	1057.43	0.00	0.00
6789	P-3393	14.00	6.10	130.00	Open	0.20	993.47	993.47	0.00	0.00
6792	P-3394	14.00	6.10	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
6794	P-3395	14.00	6.10	130.00	Open	0.08	1051.97	1051.97	0.00	0.00
6797	P-3396	14.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
6799	P-3397	15.00	6.10	130.00	Open	2.09	1052.52	1052.52	0.00	0.00
6801	P-3398	15.00	6.10	130.00	Open	-1.88	1051.74	1051.74	0.00	0.00
6803	P-3399	15.00	6.10	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
6806	P-3400	15.00	6.10	130.00	Open	-0.88	1059.01	1059.01	0.00	0.00
6808	P-3401	15.00	6.10	130.00	Open	0.68	1052.50	1052.50	0.00	0.00
6811	P-3402	15.00	6.10	130.00	Open	1.68	1051.23	1051.23	0.00	0.00
6813	P-3403	15.00	6.10	130.00	Open	0.28	1058.69	1058.69	0.00	0.00
6815	P-3404	15.00	6.10	130.00	Open	0.20	988.98	988.98	0.00	0.00
6817	P-3405	15.00	6.10	130.00	Open	0.48	1057.29	1057.29	0.00	0.00
6820	P-3406	15.00	6.10	130.00	Open	-0.68	1064.82	1064.82	0.00	0.00
6822	P-3407	15.00	6.10	130.00	Open	-0.28	1060.94	1060.94	0.00	0.00
6824	P-3408	15.00	6.10	130.00	Open	0.08	1054.88	1054.88	0.00	0.00
6827	P-3409	15.00	6.10	130.00	Open	0.28	1052.58	1052.58	0.00	0.00
6830	P-3410	15.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
6832	P-3411	15.00	6.10	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
6835	P-3412	15.00	6.10	130.00	Open	1.28	1052.50	1052.50	0.00	0.00
6838	P-3413	15.00	6.10	130.00	Open	0.48	1052.72	1052.72	0.00	0.00
6841	P-3414	15.00	6.10	130.00	Open	-0.48	1060.74	1060.74	0.00	0.00
6843	P-3415	15.00	6.10	130.00	Open	-1.28	1052.71	1052.71	0.00	0.00
6845	P-3416	15.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
6847	P-3417	15.00	6.10	130.00	Open	0.48	1064.95	1064.95	0.00	0.00
6849	P-3418	15.00	6.10	130.00	Open	0.88	1056.78	1056.78	0.00	0.00
6851	P-3419	15.00	6.10	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
6853	P-3420	15.00	6.10	130.00	Open	1.48	1056.78	1056.78	0.00	0.00
6855	P-3421	15.00	6.10	130.00	Open	-0.40	1322.92	1322.92	0.00	0.00
6858	P-3422	15.00	6.10	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
6860	P-3423	16.00	6.10	130.00	Open	0.28	1052.55	1052.55	0.00	0.00
6863	P-3424	16.00	6.10	130.00	Open	0.28	1056.76	1056.76	0.00	0.00
6865	P-3425	16.00	6.10	130.00	Open	0.48	1051.93	1051.93	0.00	0.00
6868	P-3426	16.00	6.10	130.00	Open	-0.68	1054.24	1054.24	0.00	0.00
6871	P-3427	16.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
6874	P-3428	16.00	6.10	130.00	Open	0.37	1218.52	1218.52	0.00	0.00
6876	P-3429	16.00	6.10	130.00	Open	0.48	1053.45	1053.45	0.00	0.00
6879	P-3430	16.00	6.10	130.00	Open	-1.99	1322.92	1322.92	0.00	0.00
6881	P-3431	16.00	6.10	130.00	Open	-0.28	1061.87	1061.87	0.00	0.00
6883	P-3432	16.00	6.10	130.00	Open	0.48	1064.91	1064.91	0.00	0.00
6886	P-3433	16.00	6.10	130.00	Open	0.08	1057.31	1057.31	0.00	0.00
6888	P-3434	16.00	6.10	130.00	Open	0.48	1057.29	1057.29	0.00	0.00
6891	P-3435	16.00	6.10	130.00	Open	0.08	1052.06	1052.06	0.00	0.00
6894	P-3436	16.00	6.10	130.00	Open	0.68	1057.26	1057.26	0.00	0.00
6896	P-3437	16.00	6.10	130.00	Open	0.28	963.94	963.94	0.00	0.00
6899	P-3438	16.00	6.10	130.00	Open	0.28	1056.78	1056.78	0.00	0.00
6902	P-3439	16.00	6.10	130.00	Open	0.08	1060.74	1060.74	0.00	0.00
6904	P-3440	16.00	6.10	130.00	Open	-2.09	1056.05	1056.05	0.00	0.00
6907	P-3441	16.00	6.10	130.00	Open	0.88	1057.33	1057.33	0.00	0.00
6909	P-3442	16.00	6.10	130.00	Open	0.28	1052.99	1052.99	0.00	0.00
6911	P-3443	16.00	6.10	130.00	Open	0.08	963.95	963.95	0.00	0.00
6914	P-3444	16.00	6.10	130.00	Open	0.28	1056.78	1056.78	0.00	0.00
6917	P-3445	17.00	6.10	130.00	Open	0.08	1056.92	1056.92	0.00	0.00
6920	P-3446	17.00	6.10	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
6922	P-3447	17.00	6.10	130.00	Open	0.88	1056.78	1056.78	0.00	0.00
6924	P-3448	17.00	6.10	130.00	Open	-0.48	1057.37	1057.37	0.00	0.00
6926	P-3449	17.00	6.10	130.00	Open	0.08	1051.94	1051.94	0.00	0.00
6928	P-3450	17.00	6.10	130.00	Open	0.08	963.95	963.95	0.00	0.00
6931	P-3451	17.00	6.10	130.00	Open	0.20	1217.86	1217.86	0.00	0.00
6933	P-3452	17.00	6.10	130.00	Open	-0.48	1054.33	1054.33	0.00	0.00
6936	P-3453	17.00	6.10	130.00	Open	0.48	1057.48	1057.48	0.00	0.00
6938	P-3454	17.00	6.10	130.00	Open	0.88	1053.99	1053.99	0.00	0.00
6940	P-3455	17.00	6.10	130.00	Open	0.08	1063.48	1063.48	0.00	0.00
6942	P-3456	17.00	6.10	130.00	Open	0.88	1053.99	1053.99	0.00	0.00
6944	P-3457	17.00	6.10	130.00	Open	-0.08	1053.48	1053.48	0.00	0.00
6947	P-3458	18.00	6.10	130.00	Open	0.28	1052.40	1052.40	0.00	0.00
6949	P-3459	18.00	6.10	130.00	Open	0.08	1052.64	1052.64	0.00	0.00
6951	P-3460	18.00	6.10	130.00	Open	-0.29	1218.03	1218.03	0.00	0.00
6953	P-3461	18.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
6955	P-3462	18.00	6.10	130.00	Open	-0.68	1064.98	1064.98	0.00	0.00
6957	P-3463	18.00	6.10	130.00	Open	0.88	1051.82	1051.82	0.00	0.00
6960	P-3464	18.00	6.10	130.00	Open	0.08	1057.40	1057.40	0.00	0.00
6963	P-3465	18.00	6.10	130.00	Open	0.68	1054.24	1054.24	0.00	0.00
6965	P-3466	19.00	6.10	130.00	Open	0.28	1051.95	1051.95	0.00	0.00
6967	P-3467	19.00	6.10	130.00	Open	-0.28	1053.84	1053.84	0.00	0.00
6969	P-3468	19.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
6971	P-3469	19.00	6.10	130.00	Open	0.28	1051.95	1051.95	0.00	0.00
6973	P-3470	19.00	6.10	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
6975	P-3471	19.00	6.10	130.00	Open	1.28	1052.12	1052.12	0.00	0.00
6978	P-3472	19.00	6.10	130.00	Open	1.08	1051.22	1051.22	0.00	0.00
6981	P-3473	21.00	6.10	130.00	Open	-0.08	1052.10	1052.10	0.00	0.00
6983	P-3474	21.00	6.10	130.00	Open	0.68	981.47	981.47	0.00	0.00
6985	P-3475	22.00	6.10	130.00	Open	0.48	1057.34	1057.34	0.00	0.00
6987	P-3476	24.00	6.10	130.00	Open	0.68	1053.61	1053.61	0.00	0.00
6990	P-3477	24.00	6.10	130.00	Open	-1.68	1059.78	1059.78	0.00	0.00
6992	P-3478	28.00	6.10	130.00	Open	0.08	1052.25	1052.25	0.00	0.00
6995	P-3479	24.00	6.10	130.00	Open	0.48	1052.51	1052.51	0.00	0.00
6998	P-3480	24.00	6.10	130.00	Open	-0.68	1064.82	1064.82	0.00	0.00
7001	P-3481	24.00	6.10	130.00	Open	0.08	1052.98	1052.98	0.00	0.00
7003	P-3482	25.00	6.10	130.00	Open	0.08	1057.16	1057.16	0.00	0.00
7005	P-3483	25.00	6.10	130.00	Open	0.88	1056.92	1056.92	0.00	0.00
7008	P-3484	26.00	6.10	130.00	Open	0.68	1052.10	1052.10	0.00	0.00
7011	P-3485	27.00	6.10	130.00	Open	0.28	1057.01	1057.01	0.00	0.00
7013	P-3486	27.00	6.10	130.00	Open	-0.20	1218.24	1218.24	0.00	0.00
7015	P-3487	27.00	6.10	130.00	Open	0.08	1053.02	1053.02	0.00	0.00
7017	P-3488	28.00	6.10	130.00	Open	0.48	1064.93	1064.93	0.00	0.00
7020	P-3489	28.00	6.10	130.00	Open	0.08	1051.78	1051.78	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7022	P-3490	29.00	6.10	130.00	Open	0.08	1057.71	1057.71	0.00	0.00
7024	P-3491	31.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7026	P-3492	31.00	6.10	130.00	Open	-1.48	1051.86	1051.86	0.00	0.00
7028	P-3493	33.00	6.10	130.00	Open	0.48	1058.52	1058.52	0.00	0.00
7030	P-3494	34.00	6.10	130.00	Open	0.08	1061.95	1061.95	0.00	0.00
7032	P-3495	34.00	6.10	130.00	Open	0.08	1061.76	1061.76	0.00	0.00
7034	P-3496	34.00	6.10	130.00	Open	0.68	1052.02	1052.02	0.00	0.00
7037	P-3497	34.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7039	P-3498	34.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7041	P-3499	35.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7043	P-3500	35.00	6.10	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7045	P-3501	36.00	6.10	130.00	Open	-1.28	963.94	963.94	0.00	0.00
7047	P-3502	38.00	6.10	130.00	Open	-0.88	1052.02	1052.02	0.00	0.00
7050	P-3503	38.00	6.10	130.00	Open	0.68	1052.02	1052.02	0.00	0.00
7053	P-3504	38.00	6.10	130.00	Open	-0.11	1322.91	1322.91	0.00	0.00
7055	P-3505	38.00	6.10	130.00	Open	1.28	1052.52	1052.52	0.00	0.00
7057	P-3506	40.00	6.10	130.00	Open	0.28	1051.80	1051.80	0.00	0.00
7059	P-3507	42.00	6.10	130.00	Open	0.68	1051.80	1051.80	0.00	0.00
7061	P-3508	43.00	6.10	130.00	Open	0.08	1061.95	1061.95	0.00	0.00
7063	P-3509	47.00	6.10	130.00	Open	0.08	1061.13	1061.13	0.00	0.00
7065	P-3510	47.00	6.10	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
7067	P-3511	48.00	6.10	130.00	Open	1.68	1052.12	1052.12	0.00	0.00
7070	P-3512	50.00	6.10	130.00	Open	1.08	1052.42	1052.42	0.00	0.00
7073	P-3513	52.00	6.10	130.00	Open	0.08	1051.96	1051.96	0.00	0.00
7076	P-3514	54.00	6.10	130.00	Open	0.08	1061.76	1061.76	0.00	0.00
7078	P-3515	54.00	6.10	130.00	Open	-0.29	1216.98	1216.98	0.00	0.00
7081	P-3516	56.00	6.10	130.00	Open	0.08	1064.63	1064.63	0.00	0.00
7083	P-3517	63.00	6.10	130.00	Open	-0.20	1217.08	1217.08	0.00	0.00
7085	P-3518	63.00	6.10	130.00	Open	0.08	1062.25	1062.25	0.00	0.00
7087	P-3519	66.00	6.10	130.00	Open	0.28	1053.65	1053.65	0.00	0.00
7089	P-3520	74.00	6.10	130.00	Open	0.08	1055.70	1055.70	0.00	0.00
7091	P-3521	74.00	6.10	130.00	Open	0.28	1061.12	1061.12	0.00	0.00
7093	P-3522	89.00	6.10	130.00	Open	0.88	1057.34	1057.34	0.00	0.00
7095	P-3523	106.00	6.10	130.00	Open	0.08	1060.22	1060.22	0.00	0.00
7097	P-3524	190.00	6.10	130.00	Open	0.48	1059.16	1059.16	0.00	0.00
7099	P-3525	1.00	8.00	130.00	Open	2.41	1052.06	1052.06	0.00	0.00
7105	P-3527	2.00	8.00	130.00	Open	0.08	1051.76	1051.76	0.00	0.00
7107	P-3528	2.00	8.00	130.00	Open	0.20	1217.85	1217.85	0.00	0.00
7110	P-3529	3.00	8.00	130.00	Open	137.44	1056.06	1056.06	0.00	0.00
7112	P-3530	3.00	8.00	130.00	Open	2.99	1057.97	1057.97	0.00	0.00
7114	P-3531	3.00	8.00	130.00	Open	0.08	1064.82	1064.82	0.00	0.00
7116	P-3532	3.00	8.00	130.00	Open	0.08	1064.91	1064.91	0.00	0.00
7119	P-3533	3.00	8.00	130.00	Open	-0.08	1051.74	1051.74	0.00	0.00
7121	P-3534	3.00	8.00	130.00	Open	26.67	1218.14	1218.14	0.00	0.00
7123	P-3535	4.00	8.00	130.00	Open	-38.62	1051.96	1051.96	0.00	0.00
7125	P-3536	4.00	8.00	130.00	Open	0.48	1059.99	1059.99	0.00	0.00
7128	P-3537	4.00	8.00	130.00	Open	1.92	1218.02	1218.02	0.00	0.00
7129	P-3538	4.00	8.00	130.00	Open	2.44	1051.80	1051.80	0.00	0.00
7131	P-3539	5.00	8.00	130.00	Open	0.08	1051.74	1051.74	0.00	0.00
7134	P-3540	4.00	8.00	130.00	Open	0.08	1052.99	1052.99	0.00	0.00
7136	P-3541	4.00	8.00	130.00	Open	0.08	1056.05	1056.05	0.00	0.00
7138	P-3542	4.00	8.00	130.00	Open	0.20	1217.85	1217.85	0.00	0.00
7140	P-3543	5.00	8.00	130.00	Open	137.80	1056.06	1056.06	0.00	0.00
7142	P-3544	5.00	8.00	130.00	Open	0.08	1064.91	1064.91	0.00	0.00
7145	P-3545	5.00	8.00	130.00	Open	1.23	1053.00	1053.00	0.00	0.00
7147	P-3546	5.00	8.00	130.00	Open	215.25	1052.72	1052.72	0.01	0.00
7150	P-3547	6.00	8.00	130.00	Open	0.08	1061.88	1061.88	0.00	0.00
7152	P-3548	6.00	8.00	130.00	Open	0.08	1057.28	1057.28	0.00	0.00
7154	P-3549	6.00	8.00	130.00	Open	0.11	1322.98	1322.98	0.00	0.00
7156	P-3550	6.00	8.00	130.00	Open	0.48	1051.91	1051.91	0.00	0.00
7159	P-3551	7.00	8.00	130.00	Open	0.08	1056.05	1056.05	0.00	0.00
7161	P-3552	7.00	8.00	130.00	Open	-2.47	1218.03	1218.03	0.00	0.00
7163	P-3553	7.00	8.00	130.00	Open	331.63	1054.33	1054.31	0.02	0.00
7164	P-3554	7.00	8.00	130.00	Open	0.20	1218.03	1218.03	0.00	0.00
7166	P-3555	7.00	8.00	130.00	Open	2.44	1057.28	1057.28	0.00	0.00
7167	P-3556	7.00	8.00	130.00	Open	333.44	1053.71	1053.70	0.02	0.00
7168	P-3557	7.00	8.00	130.00	Open	-0.28	1064.94	1064.94	0.00	0.00
7170	P-3558	7.00	8.00	130.00	Open	26.41	1051.91	1051.91	0.00	0.00
7171	P-3559	7.00	8.00	130.00	Open	0.08	1057.28	1057.28	0.00	0.00
7174	P-3560	7.00	8.00	130.00	Open	0.48	1064.94	1064.94	0.00	0.00
7176	P-3561	8.00	8.00	130.00	Open	-48.34	1064.90	1064.90	0.00	0.00
7177	P-3562	8.00	8.00	130.00	Open	13.44	1053.00	1053.00	0.00	0.00
7178	P-3563	8.00	8.00	130.00	Open	6.25	1051.85	1051.85	0.00	0.00
7179	P-3564	8.00	8.00	130.00	Open	0.08	1059.76	1059.76	0.00	0.00
7181	P-3565	8.00	8.00	130.00	Open	0.28	1057.32	1057.32	0.00	0.00
7183	P-3566	8.00	8.00	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7185	P-3567	8.00	8.00	130.00	Open	-0.28	1064.94	1064.94	0.00	0.00
7187	P-3568	8.00	8.00	130.00	Open	0.08	1064.93	1064.93	0.00	0.00
7189	P-3569	8.00	8.00	130.00	Open	6.72	1053.01	1053.01	0.00	0.00
7191	P-3570	9.00	8.00	130.00	Open	4.96	1056.05	1056.05	0.00	0.00
7192	P-3571	9.00	8.00	130.00	Open	0.20	1218.20	1218.20	0.00	0.00
7195	P-3572	9.00	8.00	130.00	Open	0.08	1051.73	1051.73	0.00	0.00
7198	P-3573	9.00	8.00	130.00	Open	-0.08	1064.94	1064.94	0.00	0.00
7200	P-3574	9.00	8.00	130.00	Open	-0.76	1057.97	1057.97	0.00	0.00
7201	P-3575	9.00	8.00	130.00	Open	0.28	1064.94	1064.94	0.00	0.00
7203	P-3576	9.00	8.00	130.00	Open	0.48	1057.32	1057.32	0.00	0.00
7205	P-3577	9.00	8.00	130.00	Open	-9.60	1051.84	1051.84	0.00	0.00
7207	P-3578	10.00	8.00	130.00	Open	15.37	967.36	967.36	0.00	0.00
7208	P-3579	10.00	8.00	130.00	Open	7.63	1056.05	1056.05	0.00	0.00
7210	P-3580	10.00	8.00	130.00	Open	0.28	1064.94	1064.94	0.00	0.00
7212	P-3581	10.00	8.00	130.00	Open	-4.81	1051.73	1051.73	0.00	0.00
7214	P-3582	10.00	8.00	130.00	Open	0.20	988.99	988.99	0.00	0.00
7217	P-3583	10.00	8.00	130.00	Open	0.08	1056.11	1056.11	0.00	0.00
7220	P-3584	10.00	8.00	130.00	Open	0.20	1217.75	1217.75	0.00	0.00
7222	P-3585	10.00	8.00	130.00	Open	3.47	1061.11	1061.11	0.00	0.00
7224	P-3586	10.00	8.00	130.00	Open	0.08	1053.01	1053.01	0.00	0.00
7226	P-3587	10.00	8.00	130.00	Open	0.43	1054.66	1054.66	0.00	0.00
7949	P-3588	338.00	8.00	130.00	Open	-2.24	1053.22	1053.22	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7950	P-3589	339.00	8.00	130.00	Open	-7.26	988.99	988.99	0.00	0.00
7952	P-3590	338.00	8.00	130.00	Open	6.41	1051.84	1051.84	0.00	0.00
7954	P-3591	343.00	8.00	130.00	Open	2.99	1217.85	1217.85	0.00	0.00
7955	P-3592	340.00	8.00	130.00	Open	3.13	1059.99	1059.99	0.00	0.00
7956	P-3593	341.00	8.00	130.00	Open	-29.43	1053.04	1053.05	0.01	0.00
7957	P-3594	345.00	8.00	130.00	Open	50.47	1051.89	1051.86	0.02	0.00
7958	P-3595	344.00	8.00	130.00	Open	1.03	1057.28	1057.28	0.00	0.00
7959	P-3596	386.00	8.00	130.00	Open	-4.25	1051.73	1051.73	0.00	0.00
7960	P-3597	344.00	8.00	130.00	Open	-7.01	1052.03	1052.03	0.00	0.00
7961	P-3598	354.00	8.00	130.00	Open	-38.50	1051.87	1051.89	0.02	0.00
7962	P-3599	347.00	8.00	130.00	Open	-7.26	1218.11	1218.11	0.00	0.00
7963	P-3600	348.00	8.00	130.00	Open	9.06	1064.94	1064.94	0.00	0.00
7964	P-3601	363.00	8.00	130.00	Open	1.76	1057.53	1057.53	0.00	0.00
7965	P-3602	362.00	8.00	130.00	Open	-19.88	1052.08	1052.08	0.00	0.00
7967	P-3603	355.00	8.00	130.00	Open	1.03	1059.99	1059.99	0.00	0.00
7968	P-3604	393.00	8.00	130.00	Open	-8.16	1052.72	1052.72	0.00	0.00
7969	P-3605	358.00	8.00	130.00	Open	5.72	1059.99	1059.99	0.00	0.00
7970	P-3606	356.00	8.00	130.00	Open	3.44	1051.74	1051.74	0.00	0.00
7971	P-3607	357.00	8.00	130.00	Open	5.51	1218.03	1218.03	0.00	0.00
7972	P-3608	357.00	8.00	130.00	Open	11.40	1051.93	1051.93	0.00	0.00
7973	P-3609	361.00	8.00	130.00	Open	59.57	1063.24	1063.20	0.04	0.00
7974	P-3610	356.00	8.00	130.00	Open	34.18	1051.79	1051.78	0.01	0.00
7976	P-3611	357.00	8.00	130.00	Open	0.36	1051.74	1051.74	0.00	0.00
7978	P-3612	360.00	8.00	130.00	Open	25.34	1064.83	1064.82	0.01	0.00
7979	P-3613	359.00	8.00	130.00	Open	31.05	1057.36	1057.35	0.01	0.00
7980	P-3614	402.00	8.00	130.00	Open	-11.29	1064.97	1064.97	0.00	0.00
7981	P-3615	373.00	8.00	130.00	Open	1.84	1064.93	1064.93	0.00	0.00
7982	P-3616	361.00	8.00	130.00	Open	-52.85	1052.46	1052.49	0.03	0.00
7984	P-3617	364.00	8.00	130.00	Open	-16.91	1057.30	1057.31	0.00	0.00
7985	P-3618	364.00	8.00	130.00	Open	-9.43	1055.31	1055.31	0.00	0.00
7987	P-3619	613.00	8.00	130.00	Open	27.61	1052.45	1052.44	0.01	0.00
7988	P-3620	366.00	8.00	130.00	Open	9.51	1059.76	1059.76	0.00	0.00
7989	P-3621	385.00	8.00	130.00	Open	2.52	1061.11	1061.11	0.00	0.00
7990	P-3622	381.00	8.00	130.00	Open	6.04	1064.81	1064.81	0.00	0.00
7991	P-3623	370.00	8.00	130.00	Open	63.89	1058.34	1058.30	0.04	0.00
7992	P-3624	372.00	8.00	130.00	Open	4.71	1064.82	1064.82	0.00	0.00
7993	P-3625	374.00	8.00	130.00	Open	6.79	1064.81	1064.81	0.00	0.00
7994	P-3626	413.00	8.00	130.00	Open	15.39	1051.84	1051.84	0.00	0.00
7995	P-3627	380.00	8.00	130.00	Open	0.48	1052.49	1052.49	0.00	0.00
7997	P-3628	376.00	8.00	130.00	Open	29.54	1052.14	1052.13	0.01	0.00
7998	P-3629	379.00	8.00	130.00	Open	2.59	1052.49	1052.49	0.00	0.00
7999	P-3630	388.00	8.00	130.00	Open	8.32	1053.00	1053.00	0.00	0.00
8000	P-3631	415.00	8.00	130.00	Open	6.69	1056.20	1056.20	0.00	0.00
8001	P-3632	384.00	8.00	130.00	Open	11.01	1052.51	1052.50	0.00	0.00
8002	P-3633	383.00	8.00	130.00	Open	0.63	1052.99	1052.99	0.00	0.00
8003	P-3634	383.00	8.00	130.00	Open	-1.20	1218.03	1218.03	0.00	0.00
8004	P-3635	383.00	8.00	130.00	Open	24.64	1051.81	1051.81	0.01	0.00
8005	P-3636	384.00	8.00	130.00	Open	20.85	1056.79	1056.78	0.01	0.00
8006	P-3637	446.00	8.00	130.00	Open	-5.87	1051.83	1051.83	0.00	0.00
8007	P-3638	384.00	8.00	130.00	Open	-17.06	1057.31	1057.31	0.00	0.00
8008	P-3639	392.00	8.00	130.00	Open	28.35	1218.20	1218.19	0.01	0.00
8009	P-3640	391.00	8.00	130.00	Open	-50.17	1052.19	1052.21	0.03	0.00
8010	P-3641	393.00	8.00	130.00	Open	2.44	1052.72	1052.72	0.00	0.00
8011	P-3642	492.00	8.00	130.00	Open	1.81	1051.74	1051.74	0.00	0.00
8012	P-3643	395.00	8.00	130.00	Open	4.83	1051.74	1051.74	0.00	0.00
8013	P-3644	415.00	8.00	130.00	Open	3.24	1052.50	1052.50	0.00	0.00
8014	P-3645	398.00	8.00	130.00	Open	22.16	1053.01	1053.01	0.01	0.00
8016	P-3646	406.00	8.00	130.00	Open	27.17	1051.92	1051.91	0.01	0.00
8017	P-3647	398.00	8.00	130.00	Open	53.59	1052.34	1052.31	0.03	0.00
8018	P-3648	428.00	8.00	130.00	Open	21.29	1054.26	1054.25	0.01	0.00
8019	P-3649	414.00	8.00	130.00	Open	1.64	1052.04	1052.04	0.00	0.00
8020	P-3650	408.00	8.00	130.00	Open	19.85	1064.83	1064.82	0.01	0.00
8021	P-3651	423.00	8.00	130.00	Open	1.08	1052.72	1052.72	0.00	0.00
8023	P-3652	410.00	8.00	130.00	Open	16.20	1051.89	1051.89	0.00	0.00
8024	P-3653	407.00	8.00	130.00	Open	13.31	1064.82	1064.82	0.00	0.00
8025	P-3654	405.00	8.00	130.00	Open	-85.03	1052.38	1052.46	0.08	0.00
8026	P-3655	409.00	8.00	130.00	Open	-10.49	1051.96	1051.96	0.00	0.00
8027	P-3656	406.00	8.00	130.00	Open	9.20	981.48	981.48	0.00	0.00
8028	P-3657	407.00	8.00	130.00	Open	-99.19	1052.62	1052.72	0.10	0.00
8029	P-3658	409.00	8.00	130.00	Open	28.75	1218.21	1218.20	0.01	0.00
8030	P-3659	410.00	8.00	130.00	Open	10.13	1056.78	1056.78	0.00	0.00
8031	P-3660	421.00	8.00	130.00	Open	5.51	1055.31	1055.31	0.00	0.00
8032	P-3661	421.00	8.00	130.00	Open	17.95	1064.98	1064.98	0.00	0.00
8033	P-3662	412.00	8.00	130.00	Open	6.05	1064.93	1064.93	0.00	0.00
8034	P-3663	416.00	8.00	130.00	Open	9.29	1064.97	1064.97	0.00	0.00
8035	P-3664	453.00	8.00	130.00	Open	-0.08	1064.93	1064.93	0.00	0.00
8037	P-3665	412.00	8.00	130.00	Open	5.36	1051.83	1051.82	0.00	0.00
8038	P-3666	555.00	8.00	130.00	Open	0.28	1052.04	1052.04	0.00	0.00
8040	P-3667	415.00	8.00	130.00	Open	-0.91	1051.94	1051.94	0.00	0.00
8041	P-3668	415.00	8.00	130.00	Open	9.02	1052.12	1052.12	0.00	0.00
8042	P-3669	440.00	8.00	130.00	Open	1.65	1059.76	1059.76	0.00	0.00
8043	P-3670	453.00	8.00	130.00	Open	-8.83	1051.84	1051.84	0.00	0.00
8044	P-3671	420.00	8.00	130.00	Open	-36.73	1051.75	1051.76	0.02	0.00
8045	P-3672	477.00	8.00	130.00	Open	-3.12	1218.02	1218.02	0.00	0.00
8046	P-3673	423.00	8.00	130.00	Open	-8.72	1051.74	1051.74	0.00	0.00
8047	P-3674	425.00	8.00	130.00	Open	0.66	1052.99	1052.99	0.00	0.00
8048	P-3675	453.00	8.00	130.00	Open	4.71	1064.93	1064.93	0.00	0.00
8049	P-3676	441.00	8.00	130.00	Open	-108.17	1051.76	1051.89	0.13	0.00
8050	P-3677	427.00	8.00	130.00	Open	-106.50	1053.10	1053.22	0.12	0.00
8051	P-3678	434.00	8.00	130.00	Open	10.72	1059.01	1059.01	0.00	0.00
8052	P-3679	427.00	8.00	130.00	Open	63.69	1052.38	1052.33	0.05	0.00
8053	P-3680	433.00	8.00	130.00	Open	13.34	1052.55	1052.55	0.00	0.00
8054	P-3681	432.00	8.00	130.00	Open	37.76	1053.05	1053.03	0.02	0.00
8055	P-3682	431.00	8.00	130.00	Open	-1.15	1052.12	1052.12	0.00	0.00
8056	P-3683	432.00	8.00	130.00	Open	-32.92	1057.42	1057.43	0.01	0.00
8057	P-3684	437.00	8.00	130.00	Open	-1.48	1218.03	1218.03	0.00	0.00
8058	P-3685	436.00	8.00	130.00	Open	10.96	1064.98	1064.98	0.00	0.00
8059	P-3686	439.00	8.00	130.00	Open	0.20	1218.02	1218.02	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8061	P-3687	434.00	8.00	130.00	Open	3.32	1052.56	1052.56	0.00	0.00
8063	P-3688	452.00	8.00	130.00	Open	1.28	1054.67	1054.67	0.00	0.00
8065	P-3689	467.00	8.00	130.00	Open	3.36	1059.76	1059.76	0.00	0.00
8066	P-3690	437.00	8.00	130.00	Open	-0.23	1052.00	1052.00	0.00	0.00
8067	P-3691	438.00	8.00	130.00	Open	138.91	1056.31	1056.11	0.21	0.00
8068	P-3692	444.00	8.00	130.00	Open	13.10	1051.81	1051.80	0.00	0.00
8070	P-3693	514.00	8.00	130.00	Open	-2.32	1057.97	1057.97	0.00	0.00
8071	P-3694	446.00	8.00	130.00	Open	-1.23	1051.80	1051.80	0.00	0.00
8072	P-3695	451.00	8.00	130.00	Open	-5.00	1060.72	1060.72	0.00	0.00
8073	P-3696	517.00	8.00	130.00	Open	-45.25	1059.79	1059.82	0.03	0.00
8074	P-3697	452.00	8.00	130.00	Open	31.67	1051.80	1051.79	0.01	0.00
8075	P-3698	452.00	8.00	130.00	Open	-0.20	1218.03	1218.03	0.00	0.00
8077	P-3699	454.00	8.00	130.00	Open	1.23	1056.39	1056.39	0.00	0.00
8078	P-3700	467.00	8.00	130.00	Open	-6.47	1051.84	1051.84	0.00	0.00
8079	P-3701	457.00	8.00	130.00	Open	8.28	1051.77	1051.76	0.00	0.00
8080	P-3702	457.00	8.00	130.00	Open	-1.74	1051.73	1051.73	0.00	0.00
8081	P-3703	484.00	8.00	130.00	Open	5.91	1217.75	1217.75	0.00	0.00
8082	P-3704	464.00	8.00	130.00	Open	-2.04	1057.29	1057.29	0.00	0.00
8083	P-3705	464.00	8.00	130.00	Open	28.44	1051.82	1051.81	0.01	0.00
8084	P-3706	462.00	8.00	130.00	Open	10.84	1051.93	1051.92	0.00	0.00
8085	P-3707	464.00	8.00	130.00	Open	24.64	1052.56	1052.56	0.01	0.00
8086	P-3708	466.00	8.00	130.00	Open	47.58	1064.90	1064.87	0.03	0.00
8087	P-3709	464.00	8.00	130.00	Open	-0.88	1051.83	1051.83	0.00	0.00
8089	P-3710	519.00	8.00	130.00	Open	11.18	1052.13	1052.12	0.00	0.00
8090	P-3711	487.00	8.00	130.00	Open	-13.33	1057.29	1057.29	0.00	0.00
8091	P-3712	476.00	8.00	130.00	Open	-49.66	1051.98	1052.02	0.03	0.00
8092	P-3713	485.00	8.00	130.00	Open	8.08	1051.85	1051.85	0.00	0.00
8093	P-3714	482.00	8.00	130.00	Open	3.72	1056.20	1056.20	0.00	0.00
8094	P-3715	472.00	8.00	130.00	Open	24.22	1051.87	1051.86	0.01	0.00
8095	P-3716	477.00	8.00	130.00	Open	9.79	1056.06	1056.05	0.00	0.00
8096	P-3717	473.00	8.00	130.00	Open	7.16	1064.94	1064.93	0.00	0.00
8097	P-3718	504.00	8.00	130.00	Open	4.40	1054.25	1054.25	0.00	0.00
8098	P-3719	476.00	8.00	130.00	Open	2.18	1051.81	1051.81	0.00	0.00
8099	P-3720	551.00	8.00	130.00	Open	20.52	1052.56	1052.55	0.01	0.00
8100	P-3721	520.00	8.00	130.00	Open	-0.19	1052.12	1052.12	0.00	0.00
8101	P-3722	482.00	8.00	130.00	Open	-32.69	1052.00	1052.01	0.02	0.00
8102	P-3723	479.00	8.00	130.00	Open	7.77	1052.72	1052.72	0.00	0.00
8103	P-3724	479.00	8.00	130.00	Open	-3.25	1051.73	1051.73	0.00	0.00
8104	P-3725	486.00	8.00	130.00	Open	0.35	1218.15	1218.15	0.00	0.00
8105	P-3726	503.00	8.00	130.00	Open	20.68	1052.54	1052.53	0.01	0.00
8106	P-3727	483.00	8.00	130.00	Open	121.43	1055.97	1055.79	0.18	0.00
8107	P-3728	509.00	8.00	130.00	Open	3.04	1052.34	1052.34	0.00	0.00
8108	P-3729	652.00	8.00	130.00	Open	0.17	1052.06	1052.06	0.00	0.00
8109	P-3730	495.00	8.00	130.00	Open	3.27	1053.42	1053.42	0.00	0.00
8110	P-3731	507.00	8.00	130.00	Open	-19.25	1051.85	1051.85	0.01	0.00
8111	P-3732	506.00	8.00	130.00	Closed	0.00	963.94	1051.93	0.00	0.00
8112	P-3733	508.00	8.00	130.00	Open	9.26	1051.80	1051.80	0.00	0.00
8113	P-3734	489.00	8.00	130.00	Open	-0.28	1052.68	1052.68	0.00	0.00
8115	P-3735	490.00	8.00	130.00	Open	20.31	1064.82	1064.82	0.01	0.00
8116	P-3736	496.00	8.00	130.00	Open	-10.49	1052.20	1052.20	0.00	0.00
8117	P-3737	505.00	8.00	130.00	Open	66.05	1058.40	1058.34	0.06	0.00
8118	P-3738	498.00	8.00	130.00	Open	-9.00	1051.74	1051.74	0.00	0.00
8119	P-3739	509.00	8.00	130.00	Open	-65.36	1052.58	1052.64	0.06	0.00
8120	P-3740	497.00	8.00	130.00	Open	29.75	1051.88	1051.87	0.01	0.00
8121	P-3741	498.00	8.00	130.00	Open	-22.57	1051.85	1051.86	0.01	0.00
8122	P-3742	499.00	8.00	130.00	Open	-7.61	1053.01	1053.01	0.00	0.00
8123	P-3743	500.00	8.00	130.00	Open	-24.53	1051.86	1051.87	0.01	0.00
8124	P-3744	502.00	8.00	130.00	Open	-43.06	1051.79	1051.81	0.03	0.00
8125	P-3745	503.00	8.00	130.00	Open	8.12	1054.67	1054.67	0.00	0.00
8126	P-3746	507.00	8.00	130.00	Open	16.11	981.48	981.48	0.00	0.00
8127	P-3747	538.00	8.00	130.00	Open	1.23	1064.82	1064.82	0.00	0.00
8128	P-3748	547.00	8.00	130.00	Open	2.11	1053.42	1053.42	0.00	0.00
8129	P-3749	508.00	8.00	130.00	Open	22.19	1052.36	1052.35	0.01	0.00
8130	P-3750	514.00	8.00	130.00	Open	-8.68	1218.03	1218.03	0.00	0.00
8131	P-3751	515.00	8.00	130.00	Open	21.31	1056.80	1056.80	0.01	0.00
8132	P-3752	525.00	8.00	130.00	Open	3.35	1064.82	1064.82	0.00	0.00
8133	P-3753	514.00	8.00	130.00	Open	-1.51	1056.39	1056.39	0.00	0.00
8134	P-3754	518.00	8.00	130.00	Open	4.19	1051.79	1051.79	0.00	0.00
8135	P-3755	514.00	8.00	130.00	Open	98.30	1052.51	1052.38	0.13	0.00
8136	P-3756	560.00	8.00	130.00	Open	22.75	1052.37	1052.36	0.01	0.00
8137	P-3757	537.00	8.00	130.00	Open	11.69	1051.84	1051.84	0.00	0.00
8138	P-3758	528.00	8.00	130.00	Open	31.76	1057.42	1057.40	0.02	0.00
8139	P-3759	566.00	8.00	130.00	Open	2.16	1051.96	1051.96	0.00	0.00
8140	P-3760	518.00	8.00	130.00	Open	-37.77	1052.56	1052.58	0.02	0.00
8141	P-3761	530.00	8.00	130.00	Open	11.19	1051.84	1051.84	0.00	0.00
8142	P-3762	524.00	8.00	130.00	Open	31.71	1218.36	1218.34	0.02	0.00
8143	P-3763	521.00	8.00	130.00	Open	1.19	1057.28	1057.28	0.00	0.00
8144	P-3764	523.00	8.00	130.00	Open	14.76	1064.98	1064.98	0.00	0.00
8145	P-3765	548.00	8.00	130.00	Open	6.60	1064.93	1064.93	0.00	0.00
8146	P-3766	527.00	8.00	130.00	Open	-1.62	1051.74	1051.74	0.00	0.00
8147	P-3767	530.00	8.00	130.00	Open	-59.52	1052.56	1052.62	0.05	0.00
8148	P-3768	533.00	8.00	130.00	Open	-50.72	1052.21	1052.25	0.04	0.00
8149	P-3769	535.00	8.00	130.00	Open	-32.23	1052.34	1052.36	0.02	0.00
8150	P-3770	618.00	8.00	130.00	Open	1.08	1052.86	1052.86	0.00	0.00
8152	P-3771	601.00	8.00	130.00	Open	2.72	1057.53	1057.53	0.00	0.00
8153	P-3772	543.00	8.00	130.00	Open	-1.43	1064.81	1064.81	0.00	0.00
8154	P-3773	541.00	8.00	130.00	Open	-10.95	1055.31	1055.32	0.00	0.00
8155	P-3774	708.00	8.00	130.00	Open	10.51	1322.92	1322.92	0.00	0.00
8156	P-3775	541.00	8.00	130.00	Open	-110.48	1051.47	1051.64	0.17	0.00
8157	P-3776	543.00	8.00	130.00	Open	-35.75	1051.83	1051.85	0.02	0.00
8158	P-3777	541.00	8.00	130.00	Open	-2.27	1051.94	1051.94	0.00	0.00
8159	P-3778	543.00	8.00	130.00	Open	-22.86	1051.76	1051.77	0.01	0.00
8160	P-3779	546.00	8.00	130.00	Open	2.04	1052.86	1052.86	0.00	0.00
8161	P-3780	555.00	8.00	130.00	Open	7.30	1051.80	1051.80	0.00	0.00
8162	P-3781	551.00	8.00	130.00	Open	14.74	993.45	993.44	0.00	0.00
8163	P-3782	595.00	8.00	130.00	Open	-28.01	1051.74	1051.76	0.01	0.00
8164	P-3783	550.00	8.00	130.00	Open	115.18	1052.72	1052.54	0.18	0.00
8165	P-3784	551.00	8.00	130.00	Open	1.23	1057.28	1057.28	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8166	P-3785	553.00	8.00	130.00	Open	4.86	1064.97	1064.97	0.00	0.00
8167	P-3786	564.00	8.00	130.00	Open	5.29	1051.85	1051.84	0.00	0.00
8168	P-3787	571.00	8.00	130.00	Open	9.63	1053.48	1053.48	0.00	0.00
8169	P-3788	612.00	8.00	130.00	Open	-6.13	1064.98	1064.98	0.00	0.00
8170	P-3789	556.00	8.00	130.00	Open	1.71	1061.88	1061.88	0.00	0.00
8171	P-3790	608.00	8.00	130.00	Open	-8.77	1052.03	1052.03	0.00	0.00
8172	P-3791	713.00	8.00	130.00	Open	2.19	1064.93	1064.93	0.00	0.00
8173	P-3792	581.00	8.00	130.00	Open	-62.49	1051.04	1051.10	0.06	0.00
8174	P-3793	572.00	8.00	130.00	Open	31.65	1053.03	1053.01	0.02	0.00
8175	P-3794	563.00	8.00	130.00	Open	7.74	1052.99	1052.99	0.00	0.00
8176	P-3795	569.00	8.00	130.00	Open	0.76	1057.34	1057.34	0.00	0.00
8177	P-3796	583.00	8.00	130.00	Open	-8.41	1052.99	1052.99	0.00	0.00
8178	P-3797	565.00	8.00	130.00	Open	119.36	1054.86	1054.66	0.20	0.00
8179	P-3798	568.00	8.00	130.00	Open	-1.87	1056.92	1056.92	0.00	0.00
8180	P-3799	585.00	8.00	130.00	Open	-15.26	981.48	981.49	0.00	0.00
8181	P-3800	569.00	8.00	130.00	Open	70.19	1053.16	1053.09	0.08	0.00
8182	P-3801	588.00	8.00	130.00	Open	5.23	1053.98	1053.98	0.00	0.00
8183	P-3802	574.00	8.00	130.00	Open	-0.60	1056.92	1056.92	0.00	0.00
8184	P-3803	601.00	8.00	130.00	Open	-16.83	1052.86	1052.87	0.01	0.00
8185	P-3804	577.00	8.00	130.00	Open	27.16	1218.16	1218.14	0.01	0.00
8186	P-3805	583.00	8.00	130.00	Open	23.09	1051.90	1051.89	0.01	0.00
8187	P-3806	575.00	8.00	130.00	Open	55.49	1052.14	1052.09	0.05	0.00
7708	P-3807	146.00	8.00	130.00	Open	0.10	1052.12	1052.12	0.00	0.00
7710	P-3808	147.00	8.00	130.00	Open	0.20	1216.98	1216.98	0.00	0.00
7712	P-3809	147.00	8.00	130.00	Open	0.08	1057.97	1057.97	0.00	0.00
7714	P-3810	148.00	8.00	130.00	Open	-8.12	1061.38	1061.38	0.00	0.00
7715	P-3811	149.00	8.00	130.00	Open	-0.68	1057.29	1057.29	0.00	0.00
7717	P-3812	153.00	8.00	130.00	Open	-39.38	1051.96	1051.97	0.01	0.00
7718	P-3813	166.00	8.00	130.00	Open	58.72	1060.09	1060.08	0.02	0.00
7719	P-3814	156.00	8.00	130.00	Open	3.27	1051.74	1051.74	0.00	0.00
7720	P-3815	158.00	8.00	130.00	Open	-0.88	1054.67	1054.67	0.00	0.00
7722	P-3816	162.00	8.00	130.00	Open	4.43	1054.24	1054.24	0.00	0.00
7723	P-3817	163.00	8.00	130.00	Open	-1.44	1054.67	1054.67	0.00	0.00
7725	P-3818	166.00	8.00	130.00	Open	0.28	1064.97	1064.97	0.00	0.00
7727	P-3819	164.00	8.00	130.00	Open	0.28	1051.86	1051.86	0.00	0.00
7729	P-3820	164.00	8.00	130.00	Open	0.43	1059.76	1059.76	0.00	0.00
7730	P-3821	165.00	8.00	130.00	Open	10.47	1059.76	1059.76	0.00	0.00
7731	P-3822	165.00	8.00	130.00	Open	-0.28	1051.83	1051.83	0.00	0.00
7734	P-3823	167.00	8.00	130.00	Open	2.95	1051.96	1051.96	0.00	0.00
7735	P-3824	167.00	8.00	130.00	Open	21.39	1052.54	1052.54	0.00	0.00
7736	P-3825	169.00	8.00	130.00	Open	-22.63	1064.94	1064.94	0.00	0.00
7738	P-3826	172.00	8.00	130.00	Open	3.71	981.48	981.48	0.00	0.00
7739	P-3827	170.00	8.00	130.00	Open	17.70	1217.76	1217.76	0.00	0.00
7740	P-3828	171.00	8.00	130.00	Open	3.95	981.48	981.48	0.00	0.00
7743	P-3829	172.00	8.00	130.00	Open	-5.71	1051.83	1051.83	0.00	0.00
7744	P-3830	175.00	8.00	130.00	Open	-93.64	1052.88	1052.92	0.04	0.00
7745	P-3831	176.00	8.00	130.00	Open	3.67	1052.54	1052.54	0.00	0.00
7746	P-3832	219.00	8.00	130.00	Open	0.23	1057.32	1057.32	0.00	0.00
7747	P-3833	180.00	8.00	130.00	Open	226.22	1054.63	1054.42	0.21	0.00
7748	P-3834	200.00	8.00	130.00	Open	13.40	1064.98	1064.97	0.00	0.00
7749	P-3835	183.00	8.00	130.00	Open	0.43	1051.86	1051.86	0.00	0.00
7750	P-3836	183.00	8.00	130.00	Open	-22.63	1064.94	1064.94	0.00	0.00
7751	P-3837	185.00	8.00	130.00	Open	-2.51	1056.92	1056.92	0.00	0.00
7752	P-3838	188.00	8.00	130.00	Open	-16.57	1051.74	1051.74	0.00	0.00
7753	P-3839	186.00	8.00	130.00	Open	-107.21	1051.71	1051.76	0.05	0.00
7754	P-3840	199.00	8.00	130.00	Open	-133.80	1051.93	1052.02	0.09	0.00
7755	P-3841	187.00	8.00	130.00	Open	4.15	1057.28	1057.28	0.00	0.00
7756	P-3842	195.00	8.00	130.00	Open	20.33	1052.53	1052.53	0.00	0.00
7757	P-3843	187.00	8.00	130.00	Open	14.46	1064.82	1064.82	0.00	0.00
7759	P-3844	189.00	8.00	130.00	Open	2.04	1051.82	1051.82	0.00	0.00
7760	P-3845	190.00	8.00	130.00	Open	-4.15	1057.29	1057.29	0.00	0.00
7762	P-3846	189.00	8.00	130.00	Open	-50.98	1064.94	1064.96	0.01	0.00
7764	P-3847	190.00	8.00	130.00	Open	17.25	1051.74	1051.74	0.00	0.00
7766	P-3848	191.00	8.00	130.00	Open	10.09	1216.97	1216.97	0.00	0.00
7767	P-3849	191.00	8.00	130.00	Open	-8.29	1057.53	1057.53	0.00	0.00
7769	P-3850	191.00	8.00	130.00	Open	23.69	1051.81	1051.80	0.00	0.00
7771	P-3851	196.00	8.00	130.00	Open	-42.30	1051.78	1051.79	0.01	0.00
7772	P-3852	201.00	8.00	130.00	Open	19.56	963.96	963.95	0.00	0.00
7773	P-3853	202.00	8.00	130.00	Open	-0.28	994.76	994.76	0.00	0.00
7775	P-3854	202.00	8.00	130.00	Open	-10.49	994.76	994.76	0.00	0.00
7777	P-3855	246.00	8.00	130.00	Open	10.96	1064.98	1064.98	0.00	0.00
7779	P-3856	203.00	8.00	130.00	Open	5.17	1217.75	1217.75	0.00	0.00
7780	P-3857	230.00	8.00	130.00	Open	2.39	981.48	981.48	0.00	0.00
7781	P-3858	204.00	8.00	130.00	Open	16.66	1061.12	1061.12	0.00	0.00
7782	P-3859	207.00	8.00	130.00	Open	-4.55	1051.74	1051.74	0.00	0.00
7783	P-3860	206.00	8.00	130.00	Open	5.31	1057.28	1057.28	0.00	0.00
7785	P-3861	308.00	8.00	130.00	Open	1.48	1052.01	1052.01	0.00	0.00
7787	P-3862	208.00	8.00	130.00	Open	7.14	1056.91	1056.91	0.00	0.00
7788	P-3863	215.00	8.00	130.00	Open	-1.39	1052.68	1052.68	0.00	0.00
7789	P-3864	214.00	8.00	130.00	Open	68.83	1053.09	1053.06	0.03	0.00
7790	P-3865	213.00	8.00	130.00	Open	18.45	963.95	963.95	0.00	0.00
7791	P-3866	213.00	8.00	130.00	Open	-1.03	1052.68	1052.68	0.00	0.00
7793	P-3867	220.00	8.00	130.00	Open	4.76	1057.28	1057.28	0.00	0.00
7794	P-3868	220.00	8.00	130.00	Open	0.83	1064.82	1064.82	0.00	0.00
7796	P-3869	215.00	8.00	130.00	Open	-103.03	1053.04	1053.10	0.06	0.00
7798	P-3870	243.00	8.00	130.00	Open	11.52	1062.81	1062.81	0.00	0.00
7799	P-3871	217.00	8.00	130.00	Open	4.80	1064.81	1064.81	0.00	0.00
7800	P-3872	221.00	8.00	130.00	Open	-36.12	1057.53	1057.53	0.01	0.00
7801	P-3873	265.00	8.00	130.00	Open	1.81	1051.96	1051.96	0.00	0.00
7803	P-3874	234.00	8.00	130.00	Open	-1.56	1057.75	1057.75	0.00	0.00
7804	P-3875	216.00	8.00	130.00	Open	-4.55	994.76	994.76	0.00	0.00
7805	P-3876	217.00	8.00	130.00	Open	-112.04	1051.64	1051.71	0.07	0.00
7806	P-3877	336.00	8.00	130.00	Open	-31.58	1051.98	1051.99	0.01	0.00
7807	P-3878	223.00	8.00	130.00	Open	9.53	1064.94	1064.94	0.00	0.00
7809	P-3879	219.00	8.00	130.00	Open	1.96	1056.20	1056.20	0.00	0.00
7810	P-3880	221.00	8.00	130.00	Open	-2.72	1051.74	1051.74	0.00	0.00
7811	P-3881	220.00	8.00	130.00	Open	0.48	1052.09	1052.09	0.00	0.00
7813	P-3882	221.00	8.00	130.00	Open	-0.88	1052.03	1052.03	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7815	P-3883	221.00	8.00	130.00	Open	0.84	1057.32	1057.32	0.00	0.00
7816	P-3884	225.00	8.00	130.00	Open	9.56	1061.12	1061.12	0.00	0.00
7817	P-3885	241.00	8.00	130.00	Open	4.37	1051.74	1051.74	0.00	0.00
7818	P-3886	225.00	8.00	130.00	Open	21.73	1051.75	1051.74	0.00	0.00
7820	P-3887	226.00	8.00	130.00	Open	0.48	1053.00	1053.00	0.00	0.00
7822	P-3888	234.00	8.00	130.00	Open	0.68	1216.98	1216.98	0.00	0.00
7823	P-3889	225.00	8.00	130.00	Open	78.24	1053.20	1053.16	0.04	0.00
7824	P-3890	225.00	8.00	130.00	Open	-3.20	1057.29	1057.29	0.00	0.00
7825	P-3891	226.00	8.00	130.00	Open	71.84	1053.61	1053.58	0.03	0.00
7826	P-3892	230.00	8.00	130.00	Open	3.35	1064.93	1064.93	0.00	0.00
7829	P-3893	233.00	8.00	130.00	Open	7.06	1053.01	1053.01	0.00	0.00
7830	P-3894	229.00	8.00	130.00	Open	-0.68	1052.02	1052.02	0.00	0.00
7832	P-3895	244.00	8.00	130.00	Open	-2.11	1057.75	1057.75	0.00	0.00
7833	P-3896	232.00	8.00	130.00	Open	7.72	1218.15	1218.15	0.00	0.00
7834	P-3897	247.00	8.00	130.00	Open	-17.52	1057.33	1057.33	0.00	0.00
7835	P-3898	240.00	8.00	130.00	Open	8.97	1054.24	1054.24	0.00	0.00
7836	P-3899	234.00	8.00	130.00	Open	15.95	1051.85	1051.84	0.00	0.00
7838	P-3900	233.00	8.00	130.00	Open	7.33	1218.15	1218.15	0.00	0.00
7839	P-3901	235.00	8.00	130.00	Open	4.03	1051.96	1051.96	0.00	0.00
7840	P-3902	238.00	8.00	130.00	Open	-6.04	1052.06	1052.07	0.00	0.00
7841	P-3903	237.00	8.00	130.00	Open	-16.19	1064.93	1064.94	0.00	0.00
7842	P-3904	241.00	8.00	130.00	Open	18.30	963.95	963.94	0.00	0.00
7843	P-3905	238.00	8.00	130.00	Open	-54.99	1063.11	1063.13	0.02	0.00
7844	P-3906	243.00	8.00	130.00	Open	16.59	963.94	963.94	0.00	0.00
7845	P-3907	241.00	8.00	130.00	Open	13.61	1051.84	1051.84	0.00	0.00
7846	P-3908	242.00	8.00	130.00	Open	-21.11	1052.88	1052.88	0.00	0.00
7847	P-3909	246.00	8.00	130.00	Open	58.41	1052.17	1052.14	0.02	0.00
7848	P-3910	247.00	8.00	130.00	Open	3.69	1059.76	1059.76	0.00	0.00
7849	P-3911	245.00	8.00	130.00	Open	6.49	1322.92	1322.92	0.00	0.00
7850	P-3912	247.00	8.00	130.00	Open	14.40	1053.01	1053.00	0.00	0.00
7851	P-3913	248.00	8.00	130.00	Open	19.26	1051.81	1051.80	0.00	0.00
7853	P-3914	260.00	8.00	130.00	Open	-81.88	1057.84	1057.88	0.05	0.00
7854	P-3915	252.00	8.00	130.00	Open	19.01	1051.74	1051.74	0.00	0.00
7855	P-3916	258.00	8.00	130.00	Open	-1.84	1051.74	1051.74	0.00	0.00
7856	P-3917	255.00	8.00	130.00	Open	330.25	1054.31	1053.71	0.60	0.00
7857	P-3918	258.00	8.00	130.00	Open	9.56	1056.79	1056.79	0.00	0.00
7858	P-3919	260.00	8.00	130.00	Open	6.87	1053.01	1053.01	0.00	0.00
7859	P-3920	260.00	8.00	130.00	Open	16.21	1054.25	1054.25	0.00	0.00
7862	P-3921	263.00	8.00	130.00	Open	-0.68	1053.00	1053.00	0.00	0.00
7864	P-3922	261.00	8.00	130.00	Open	45.47	1051.86	1051.85	0.02	0.00
7865	P-3923	315.00	8.00	130.00	Open	-5.79	1053.98	1053.98	0.00	0.00
7866	P-3924	268.00	8.00	130.00	Open	29.13	1051.93	1051.92	0.01	0.00
7867	P-3925	315.00	8.00	130.00	Open	-3.12	1051.98	1051.98	0.00	0.00
7868	P-3926	264.00	8.00	130.00	Open	3.90	1056.91	1056.91	0.00	0.00
7869	P-3927	274.00	8.00	130.00	Open	8.00	1056.79	1056.79	0.00	0.00
7870	P-3928	270.00	8.00	130.00	Open	8.91	1061.88	1061.88	0.00	0.00
7871	P-3929	266.00	8.00	130.00	Open	0.68	1052.02	1052.02	0.00	0.00
7873	P-3930	267.00	8.00	130.00	Open	79.60	1053.24	1053.20	0.05	0.00
7874	P-3931	271.00	8.00	130.00	Open	0.46	1218.03	1218.03	0.00	0.00
7876	P-3932	274.00	8.00	130.00	Open	9.25	963.94	963.94	0.00	0.00
7877	P-3933	298.00	8.00	130.00	Open	-0.88	1057.28	1057.28	0.00	0.00
7879	P-3934	271.00	8.00	130.00	Open	31.36	1217.79	1217.78	0.01	0.00
7880	P-3935	272.00	8.00	130.00	Open	-4.64	1053.01	1053.01	0.00	0.00
7881	P-3936	274.00	8.00	130.00	Open	0.68	1052.86	1052.86	0.00	0.00
7883	P-3937	285.00	8.00	130.00	Open	2.24	1064.93	1064.93	0.00	0.00
7884	P-3938	275.00	8.00	130.00	Open	13.88	1052.51	1052.51	0.00	0.00
7885	P-3939	279.00	8.00	130.00	Open	17.08	1052.13	1052.12	0.00	0.00
7887	P-3940	276.00	8.00	130.00	Open	0.62	1051.96	1051.96	0.00	0.00
7888	P-3941	280.00	8.00	130.00	Open	5.20	1051.74	1051.74	0.00	0.00
7889	P-3942	277.00	8.00	130.00	Open	-3.06	1052.68	1052.68	0.00	0.00
7891	P-3943	277.00	8.00	130.00	Open	16.94	963.94	963.94	0.00	0.00
7892	P-3944	284.00	8.00	130.00	Open	0.99	1059.33	1059.33	0.00	0.00
7893	P-3945	283.00	8.00	130.00	Open	7.89	963.94	963.94	0.00	0.00
7894	P-3946	290.00	8.00	130.00	Open	1.31	1057.97	1057.97	0.00	0.00
7895	P-3947	285.00	8.00	130.00	Open	3.86	1218.15	1218.15	0.00	0.00
7896	P-3948	286.00	8.00	130.00	Open	1.52	1218.15	1218.15	0.00	0.00
7897	P-3949	287.00	8.00	130.00	Open	2.32	1218.02	1218.02	0.00	0.00
7898	P-3950	339.00	8.00	130.00	Open	-46.41	1059.82	1059.84	0.02	0.00
7899	P-3951	288.00	8.00	130.00	Open	0.88	1055.31	1055.31	0.00	0.00
7901	P-3952	291.00	8.00	130.00	Open	-37.89	1051.76	1051.78	0.01	0.00
7902	P-3953	298.00	8.00	130.00	Open	9.40	1061.12	1061.11	0.00	0.00
7903	P-3954	289.00	8.00	130.00	Open	1.23	1064.93	1064.93	0.00	0.00
7904	P-3955	290.00	8.00	130.00	Open	0.28	1057.28	1057.28	0.00	0.00
7906	P-3956	290.00	8.00	130.00	Open	13.55	1051.80	1051.80	0.00	0.00
7907	P-3957	291.00	8.00	130.00	Open	11.29	1056.78	1056.78	0.00	0.00
7908	P-3958	292.00	8.00	130.00	Open	-0.68	981.48	981.48	0.00	0.00
7910	P-3959	292.00	8.00	130.00	Open	0.88	1052.12	1052.12	0.00	0.00
7912	P-3960	292.00	8.00	130.00	Open	10.92	1053.00	1053.00	0.00	0.00
7913	P-3961	342.00	8.00	130.00	Open	-1.56	1051.74	1051.74	0.00	0.00
7914	P-3962	294.00	8.00	130.00	Open	2.84	1052.86	1052.86	0.00	0.00
7915	P-3963	294.00	8.00	130.00	Open	24.90	1061.38	1061.37	0.01	0.00
7916	P-3964	294.00	8.00	130.00	Open	3.07	1051.96	1051.96	0.00	0.00
7917	P-3965	300.00	8.00	130.00	Open	19.41	963.95	963.95	0.00	0.00
7918	P-3966	302.00	8.00	130.00	Open	-38.43	1057.58	1057.58	0.01	0.00
7919	P-3967	309.00	8.00	130.00	Open	4.46	1064.93	1064.93	0.00	0.00
7920	P-3968	308.00	8.00	130.00	Open	-2.30	1052.68	1052.68	0.00	0.00
7921	P-3969	349.00	8.00	130.00	Open	-1.82	1051.85	1051.85	0.00	0.00
7922	P-3970	311.00	8.00	130.00	Open	-33.44	1052.01	1052.02	0.01	0.00
7923	P-3971	342.00	8.00	130.00	Open	6.01	1052.50	1052.50	0.00	0.00
7924	P-3972	315.00	8.00	130.00	Open	11.08	1216.98	1216.97	0.00	0.00
7925	P-3973	359.00	8.00	130.00	Open	27.90	963.96	963.96	0.01	0.00
7926	P-3974	320.00	8.00	130.00	Open	-10.35	1051.84	1051.85	0.00	0.00
7927	P-3975	315.00	8.00	130.00	Open	-8.51	1053.98	1053.98	0.00	0.00
7928	P-3976	319.00	8.00	130.00	Open	0.43	1064.93	1064.93	0.00	0.00
7929	P-3977	315.00	8.00	130.00	Open	9.36	1061.12	1061.12	0.00	0.00
7930	P-3978	316.00	8.00	130.00	Open	13.83	981.48	981.48	0.00	0.00
7931	P-3979	317.00	8.00	130.00	Open	8.10	1057.29	1057.29	0.00	0.00
7933	P-3980	318.00	8.00	130.00	Open	6.16	1064.82	1064.81	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
7934	P-3981	318.00	8.00	130.00	Open	15.93	1059.77	1059.76	0.00	0.00
7935	P-3982	320.00	8.00	130.00	Open	-49.81	1052.16	1052.19	0.02	0.00
7936	P-3983	320.00	8.00	130.00	Open	4.20	1054.25	1054.25	0.00	0.00
7937	P-3984	324.00	8.00	130.00	Open	-1.08	1051.79	1051.79	0.00	0.00
7939	P-3985	329.00	8.00	130.00	Open	124.90	1056.39	1056.26	0.13	0.00
7940	P-3986	330.00	8.00	130.00	Open	32.62	1051.78	1051.77	0.01	0.00
7942	P-3987	331.00	8.00	130.00	Open	-6.47	988.99	988.99	0.00	0.00
7943	P-3988	331.00	8.00	130.00	Open	0.79	1064.98	1064.98	0.00	0.00
7944	P-3989	386.00	8.00	130.00	Open	-3.72	1051.74	1051.74	0.00	0.00
7945	P-3990	339.00	8.00	130.00	Open	21.84	1052.35	1052.34	0.01	0.00
7947	P-3991	336.00	8.00	130.00	Open	2.72	1051.96	1051.96	0.00	0.00
8188	P-3992	661.00	8.00	130.00	Open	-1.99	1052.06	1052.06	0.00	0.00
8189	P-3993	598.00	8.00	130.00	Open	-49.50	1064.90	1064.94	0.04	0.00
8190	P-3994	578.00	8.00	130.00	Open	-33.94	1052.38	1052.40	0.02	0.00
8191	P-3995	594.00	8.00	130.00	Open	2.33	1218.03	1218.03	0.00	0.00
8192	P-3996	580.00	8.00	130.00	Open	18.27	1217.77	1217.76	0.01	0.00
8193	P-3997	728.00	8.00	130.00	Open	-36.87	1057.53	1057.56	0.03	0.00
8194	P-3998	584.00	8.00	130.00	Open	-109.78	1053.24	1053.42	0.18	0.00
8195	P-3999	590.00	8.00	130.00	Open	7.98	1057.97	1057.97	0.00	0.00
8196	P-4000	672.00	8.00	130.00	Open	5.25	1059.76	1059.76	0.00	0.00
8197	P-4001	747.00	8.00	130.00	Open	-4.45	981.48	981.48	0.00	0.00
8198	P-4002	594.00	8.00	130.00	Open	-7.75	1053.98	1053.98	0.00	0.00
8199	P-4003	620.00	8.00	130.00	Open	5.91	1056.05	1056.05	0.00	0.00
8200	P-4004	600.00	8.00	130.00	Open	-9.34	1051.73	1051.74	0.00	0.00
8201	P-4005	596.00	8.00	130.00	Open	-2.52	1061.87	1061.88	0.00	0.00
8202	P-4006	729.00	8.00	130.00	Open	2.29	1053.01	1053.01	0.00	0.00
8204	P-4007	600.00	8.00	130.00	Open	2.99	1053.00	1053.00	0.00	0.00
8205	P-4008	616.00	8.00	130.00	Open	79.08	1053.92	1053.82	0.10	0.00
8206	P-4009	629.00	8.00	130.00	Open	29.73	1052.56	1052.54	0.02	0.00
8207	P-4010	597.00	8.00	130.00	Open	129.72	1056.64	1056.39	0.25	0.00
8208	P-4011	597.00	8.00	130.00	Open	3.51	1322.91	1322.91	0.00	0.00
8209	P-4012	607.00	8.00	130.00	Open	-18.79	1052.87	1052.88	0.01	0.00
8210	P-4013	621.00	8.00	130.00	Open	-0.31	1056.92	1056.92	0.00	0.00
8211	P-4014	652.00	8.00	130.00	Open	2.36	963.94	963.94	0.00	0.00
8212	P-4015	627.00	8.00	130.00	Open	-17.42	981.49	981.49	0.01	0.00
8213	P-4016	615.00	8.00	130.00	Open	29.55	1218.24	1218.23	0.02	0.00
8214	P-4017	601.00	8.00	130.00	Open	-1.08	1051.96	1051.96	0.00	0.00
8216	P-4018	626.00	8.00	130.00	Open	-4.77	1064.98	1064.98	0.00	0.00
8217	P-4019	818.00	8.00	130.00	Open	1.03	981.48	981.48	0.00	0.00
8218	P-4020	617.00	8.00	130.00	Open	2.99	1057.28	1057.28	0.00	0.00
8219	P-4021	609.00	8.00	130.00	Open	59.88	1060.15	1060.09	0.06	0.00
8220	P-4022	677.00	8.00	130.00	Open	5.71	1061.12	1061.12	0.00	0.00
8221	P-4023	640.00	8.00	130.00	Open	-1.44	1052.02	1052.02	0.00	0.00
8222	P-4024	656.00	8.00	130.00	Open	-30.97	1051.93	1051.95	0.02	0.00
8223	P-4025	616.00	8.00	130.00	Open	-9.59	1052.24	1052.24	0.00	0.00
8224	P-4026	620.00	8.00	130.00	Open	9.76	1062.81	1062.81	0.00	0.00
8225	P-4027	620.00	8.00	130.00	Open	8.57	1051.84	1051.84	0.00	0.00
8226	P-4028	626.00	8.00	130.00	Open	1.44	1064.93	1064.93	0.00	0.00
8227	P-4029	629.00	8.00	130.00	Open	12.48	1053.00	1053.00	0.00	0.00
8228	P-4030	636.00	8.00	130.00	Open	-10.64	1057.29	1057.29	0.00	0.00
8229	P-4031	651.00	8.00	130.00	Open	-3.24	1052.52	1052.52	0.00	0.00
8230	P-4032	630.00	8.00	130.00	Open	-51.24	1063.06	1063.11	0.05	0.00
8231	P-4033	646.00	8.00	130.00	Open	2.84	1053.48	1053.48	0.00	0.00
8232	P-4034	628.00	8.00	130.00	Open	17.57	1051.82	1051.81	0.01	0.00
8233	P-4035	748.00	8.00	130.00	Open	-12.84	1057.53	1057.53	0.00	0.00
8234	P-4036	684.00	8.00	130.00	Open	27.95	993.48	993.47	0.02	0.00
8235	P-4037	639.00	8.00	130.00	Open	29.15	1218.23	1218.21	0.02	0.00
8236	P-4038	765.00	8.00	130.00	Open	2.79	1061.12	1061.12	0.00	0.00
8237	P-4039	846.00	8.00	130.00	Open	1.93	1052.06	1052.06	0.00	0.00
8238	P-4040	795.00	8.00	130.00	Open	-1.12	1052.12	1052.12	0.00	0.00
8239	P-4041	719.00	8.00	130.00	Open	-0.91	1051.96	1051.96	0.00	0.00
8240	P-4042	678.00	8.00	130.00	Open	64.67	1060.34	1060.27	0.08	0.00
8241	P-4043	719.00	8.00	130.00	Open	36.32	1052.01	1051.98	0.03	0.00
8242	P-4044	754.00	8.00	130.00	Open	-5.96	1052.86	1052.86	0.00	0.00
8243	P-4045	658.00	8.00	130.00	Open	27.56	1218.17	1218.16	0.02	0.00
8244	P-4046	655.00	8.00	130.00	Open	46.63	1064.87	1064.83	0.04	0.00
8245	P-4047	683.00	8.00	130.00	Open	-15.89	1057.29	1057.30	0.01	0.00
8246	P-4048	657.00	8.00	130.00	Open	17.13	1217.76	1217.76	0.01	0.00
8247	P-4049	666.00	8.00	130.00	Open	67.25	1053.07	1052.99	0.08	0.00
8248	P-4050	658.00	8.00	130.00	Open	81.80	1054.04	1053.93	0.12	0.00
8249	P-4051	675.00	8.00	130.00	Open	2.73	1064.93	1064.93	0.00	0.00
8250	P-4052	676.00	8.00	130.00	Open	20.41	1051.82	1051.81	0.01	0.00
8251	P-4053	697.00	8.00	130.00	Open	-1.96	1056.92	1056.92	0.00	0.00
8252	P-4054	664.00	8.00	130.00	Open	-10.93	1051.74	1051.74	0.00	0.00
8253	P-4055	680.00	8.00	130.00	Open	52.43	1052.31	1052.26	0.05	0.00
8254	P-4056	674.00	8.00	130.00	Open	-8.43	1052.24	1052.24	0.00	0.00
8255	P-4057	797.00	8.00	130.00	Open	5.96	1064.82	1064.82	0.00	0.00
8256	P-4058	670.00	8.00	130.00	Open	-27.07	1053.02	1053.04	0.02	0.00
8257	P-4059	699.00	8.00	130.00	Open	-1.64	1060.72	1060.72	0.00	0.00
8258	P-4060	676.00	8.00	130.00	Open	-30.60	1057.59	1057.61	0.02	0.00
8259	P-4061	687.00	8.00	130.00	Open	5.68	1057.27	1057.27	0.00	0.00
8260	P-4062	691.00	8.00	130.00	Open	-0.01	1057.28	1057.28	0.00	0.00
8261	P-4063	711.00	8.00	130.00	Open	4.60	1053.48	1053.48	0.00	0.00
8262	P-4064	702.00	8.00	130.00	Open	-6.47	1218.03	1218.03	0.00	0.00
8263	P-4065	761.00	8.00	130.00	Open	17.75	1056.80	1056.79	0.01	0.00
8264	P-4066	710.00	8.00	130.00	Open	2.26	1051.74	1051.74	0.00	0.00
8265	P-4067	705.00	8.00	130.00	Open	3.04	1060.60	1060.60	0.00	0.00
8266	P-4068	736.00	8.00	130.00	Open	6.96	1064.93	1064.93	0.00	0.00
8267	P-4069	726.00	8.00	130.00	Open	2.44	1054.25	1054.25	0.00	0.00
8268	P-4070	700.00	8.00	130.00	Open	22.94	1061.37	1061.36	0.01	0.00
8269	P-4071	692.00	8.00	130.00	Open	-33.19	1052.36	1052.38	0.02	0.00
8270	P-4072	695.00	8.00	130.00	Open	1.03	1051.76	1051.76	0.00	0.00
8271	P-4073	713.00	8.00	130.00	Open	-13.72	1051.74	1051.75	0.00	0.00
8272	P-4074	704.00	8.00	130.00	Open	-36.41	1052.53	1052.56	0.03	0.00
8273	P-4075	705.00	8.00	130.00	Open	1.19	1053.10	1053.10	0.00	0.00
8274	P-4076	717.00	8.00	130.00	Open	1.81	1052.99	1052.99	0.00	0.00
8275	P-4077	704.00	8.00	130.00	Open	-13.41	1051.74	1051.74	0.00	0.00
8276	P-4078	703.00	8.00	130.00	Open	2.04	1052.54	1052.54	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8277	P-4079	707.00	8.00	130.00	Open	-4.40	1052.02	1052.02	0.00	0.00
8278	P-4080	716.00	8.00	130.00	Open	12.98	1052.55	1052.54	0.00	0.00
8279	P-4081	703.00	8.00	130.00	Open	2.04	1057.97	1057.97	0.00	0.00
8280	P-4082	721.00	8.00	130.00	Open	-57.86	1063.13	1063.20	0.07	0.00
8281	P-4083	713.00	8.00	130.00	Open	2.24	1064.91	1064.91	0.00	0.00
8282	P-4084	719.00	8.00	130.00	Open	-10.29	1057.29	1057.29	0.00	0.00
8283	P-4085	878.00	8.00	130.00	Open	-25.24	1057.57	1057.59	0.02	0.00
8284	P-4086	776.00	8.00	130.00	Open	2.55	1057.28	1057.28	0.00	0.00
8285	P-4087	753.00	8.00	130.00	Open	7.35	1061.88	1061.88	0.00	0.00
8286	P-4088	729.00	8.00	130.00	Open	2.39	1051.83	1051.83	0.00	0.00
8287	P-4089	749.00	8.00	130.00	Open	6.88	981.48	981.48	0.00	0.00
8288	P-4090	1075.00	8.00	130.00	Open	125.86	1055.40	1054.97	0.42	0.00
8289	P-4091	724.00	8.00	130.00	Open	9.65	1064.93	1064.93	0.00	0.00
8290	P-4092	748.00	8.00	130.00	Open	23.05	1054.27	1054.26	0.01	0.00
8291	P-4093	733.00	8.00	130.00	Open	6.19	1052.54	1052.54	0.00	0.00
8292	P-4094	733.00	8.00	130.00	Open	-1.84	1055.31	1055.31	0.00	0.00
8293	P-4095	739.00	8.00	130.00	Open	16.42	1217.82	1217.81	0.01	0.00
8294	P-4096	740.00	8.00	130.00	Open	-79.99	1051.35	1051.47	0.13	0.00
8295	P-4097	937.00	8.00	130.00	Open	-36.93	1057.64	1057.67	0.04	0.00
8296	P-4098	743.00	8.00	130.00	Open	1.28	1052.25	1052.25	0.00	0.00
8298	P-4099	735.00	8.00	130.00	Open	2.44	1054.25	1054.25	0.00	0.00
8299	P-4100	780.00	8.00	130.00	Open	2.33	1216.97	1216.97	0.00	0.00
8300	P-4101	841.00	8.00	130.00	Open	-6.85	1052.12	1052.12	0.00	0.00
8301	P-4102	761.00	8.00	130.00	Open	4.95	1051.80	1051.80	0.00	0.00
8302	P-4103	862.00	8.00	130.00	Open	-4.00	1064.81	1064.82	0.00	0.00
8303	P-4104	773.00	8.00	130.00	Open	7.52	1053.48	1053.48	0.00	0.00
8304	P-4105	774.00	8.00	130.00	Open	123.19	1056.26	1055.97	0.29	0.00
8305	P-4106	770.00	8.00	130.00	Open	1.44	1056.05	1056.05	0.00	0.00
8306	P-4107	766.00	8.00	130.00	Open	-6.36	1052.02	1052.02	0.00	0.00
8307	P-4108	767.00	8.00	130.00	Open	-3.83	1056.92	1056.92	0.00	0.00
8308	P-4109	762.00	8.00	130.00	Open	-43.53	1057.48	1057.53	0.04	0.00
8309	P-4110	760.00	8.00	130.00	Open	30.90	1057.35	1057.33	0.02	0.00
8310	P-4111	773.00	8.00	130.00	Open	26.15	1052.58	1052.56	0.02	0.00
8311	P-4112	762.00	8.00	130.00	Open	2.32	1052.54	1052.54	0.00	0.00
8312	P-4113	798.00	8.00	130.00	Open	5.82	1064.97	1064.97	0.00	0.00
8313	P-4114	770.00	8.00	130.00	Open	7.53	1064.97	1064.97	0.00	0.00
8314	P-4115	802.00	8.00	130.00	Open	4.00	1054.67	1054.67	0.00	0.00
8315	P-4116	795.00	8.00	130.00	Open	68.76	1053.28	1053.18	0.10	0.00
8316	P-4117	831.00	8.00	130.00	Open	-1.44	1052.86	1052.86	0.00	0.00
8317	P-4118	791.00	8.00	130.00	Open	-5.50	988.98	988.99	0.00	0.00
8318	P-4119	796.00	8.00	130.00	Open	59.77	1052.25	1052.17	0.08	0.00
8319	P-4120	771.00	8.00	130.00	Open	31.31	1218.34	1218.32	0.02	0.00
8320	P-4121	860.00	8.00	130.00	Open	8.49	1051.79	1051.79	0.00	0.00
8321	P-4122	776.00	8.00	130.00	Open	18.76	1217.78	1217.77	0.01	0.00
8322	P-4123	811.00	8.00	130.00	Open	9.72	1064.92	1064.92	0.00	0.00
8323	P-4124	805.00	8.00	130.00	Open	8.10	1064.94	1064.93	0.00	0.00
8324	P-4125	791.00	8.00	130.00	Open	-12.29	981.48	981.48	0.00	0.00
8325	P-4126	789.00	8.00	130.00	Open	-11.40	1052.86	1052.86	0.00	0.00
8326	P-4127	788.00	8.00	130.00	Open	123.90	1054.97	1054.67	0.30	0.00
8327	P-4128	797.00	8.00	130.00	Open	27.95	1218.19	1218.17	0.02	0.00
8328	P-4129	798.00	8.00	130.00	Open	-70.79	1052.76	1052.87	0.11	0.00
8329	P-4130	793.00	8.00	130.00	Open	117.53	1052.36	1052.08	0.27	0.00
8330	P-4131	816.00	8.00	130.00	Open	27.06	1052.44	1052.42	0.02	0.00
8331	P-4132	805.00	8.00	130.00	Open	4.61	1064.92	1064.91	0.00	0.00
8332	P-4133	826.00	8.00	130.00	Open	-35.46	1052.50	1052.53	0.03	0.00
8333	P-4134	823.00	8.00	130.00	Open	61.93	1052.33	1052.25	0.09	0.00
8334	P-4135	801.00	8.00	130.00	Open	5.96	1053.00	1053.00	0.00	0.00
8335	P-4136	832.00	8.00	130.00	Open	4.08	1064.92	1064.91	0.00	0.00
8336	P-4137	821.00	8.00	130.00	Open	56.72	1052.56	1052.49	0.07	0.00
8337	P-4138	816.00	8.00	130.00	Open	6.44	1059.01	1059.01	0.00	0.00
8338	P-4139	804.00	8.00	130.00	Open	-68.83	1052.66	1052.76	0.10	0.00
8339	P-4140	811.00	8.00	130.00	Open	12.23	1052.54	1052.54	0.00	0.00
8340	P-4141	822.00	8.00	130.00	Open	-17.22	1057.31	1057.32	0.01	0.00
8341	P-4142	806.00	8.00	130.00	Open	70.32	1053.38	1053.28	0.11	0.00
8342	P-4143	833.00	8.00	130.00	Open	-0.68	1051.73	1051.73	0.00	0.00
8344	P-4144	807.00	8.00	130.00	Open	127.58	1056.06	1055.73	0.33	0.00
8345	P-4145	810.00	8.00	130.00	Open	9.82	1051.89	1051.89	0.00	0.00
8346	P-4146	829.00	8.00	130.00	Open	11.07	1064.82	1064.81	0.00	0.00
8347	P-4147	865.00	8.00	130.00	Open	3.33	1052.12	1052.12	0.00	0.00
8348	P-4148	832.00	8.00	130.00	Open	-3.27	1056.92	1056.92	0.00	0.00
8349	P-4149	813.00	8.00	130.00	Open	2.07	1052.12	1052.12	0.00	0.00
8350	P-4150	905.00	8.00	130.00	Open	24.65	1051.91	1051.90	0.02	0.00
8351	P-4151	948.00	8.00	130.00	Open	5.49	1052.12	1052.12	0.00	0.00
8352	P-4152	849.00	8.00	130.00	Open	6.39	1056.91	1056.91	0.00	0.00
8353	P-4153	945.00	8.00	130.00	Open	6.92	1057.53	1057.53	0.00	0.00
8354	P-4154	836.00	8.00	130.00	Open	126.62	1055.73	1055.40	0.33	0.00
8355	P-4155	846.00	8.00	130.00	Open	8.09	1052.99	1052.99	0.00	0.00
8356	P-4156	831.00	8.00	130.00	Open	30.92	1218.32	1218.29	0.02	0.00
8357	P-4157	836.00	8.00	130.00	Open	7.59	1052.12	1052.12	0.00	0.00
8358	P-4158	836.00	8.00	130.00	Open	-2.07	1056.64	1056.64	0.00	0.00
8359	P-4159	958.00	8.00	130.00	Open	65.62	1060.46	1060.34	0.11	0.00
8360	P-4160	837.00	8.00	130.00	Open	-115.69	1053.45	1053.73	0.28	0.00
8361	P-4161	850.00	8.00	130.00	Open	-33.17	1057.61	1057.64	0.03	0.00
8362	P-4162	843.00	8.00	130.00	Open	-48.05	1052.11	1052.16	0.06	0.00
8363	P-4163	977.00	8.00	130.00	Open	10.44	1064.82	1064.82	0.00	0.00
8364	P-4164	850.00	8.00	130.00	Open	-21.70	1053.01	1053.02	0.01	0.00
8365	P-4165	884.00	8.00	130.00	Open	10.03	1064.92	1064.92	0.00	0.00
8366	P-4166	866.00	8.00	130.00	Open	-3.68	1052.12	1052.12	0.00	0.00
8367	P-4167	865.00	8.00	130.00	Open	3.60	1051.82	1051.82	0.00	0.00
8368	P-4168	882.00	8.00	130.00	Open	4.06	1064.91	1064.91	0.00	0.00
8369	P-4169	866.00	8.00	130.00	Open	67.61	1053.18	1053.07	0.11	0.00
8370	P-4170	870.00	8.00	130.00	Open	-2.36	1218.03	1218.03	0.00	0.00
8371	P-4171	928.00	8.00	130.00	Open	4.20	1052.54	1052.54	0.00	0.00
8372	P-4172	861.00	8.00	130.00	Open	1.68	1054.67	1054.67	0.00	0.00
8374	P-4173	863.00	8.00	130.00	Open	-57.77	1060.00	1060.08	0.08	0.00
8376	P-4174	870.00	8.00	130.00	Open	29.95	1218.27	1218.24	0.02	0.00
8377	P-4175	875.00	8.00	130.00	Open	139.86	1056.73	1056.31	0.42	0.00
8378	P-4176	881.00	8.00	130.00	Open	5.41	1061.38	1061.38	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)	Headloss Gradient (ft/1000ft)
8379	P-4177	866.00	8.00	130.00	Open	3.35	873.78	873.78	0.00	0.00
8380	P-4178	911.00	8.00	130.00	Open	2.32	1064.91	1064.91	0.00	0.00
8381	P-4179	916.00	8.00	130.00	Open	27.55	993.47	993.45	0.02	0.00
8382	P-4180	883.00	8.00	130.00	Open	-17.37	1057.32	1057.33	0.01	0.00
8383	P-4181	895.00	8.00	130.00	Open	-3.40	1052.86	1052.86	0.00	0.00
8384	P-4182	904.00	8.00	130.00	Open	9.88	1064.92	1064.92	0.00	0.00
8385	P-4183	891.00	8.00	130.00	Open	-81.73	1057.68	1057.84	0.16	0.00
8386	P-4184	898.00	8.00	130.00	Open	22.26	1051.83	1051.82	0.01	0.00
8387	P-4185	917.00	8.00	130.00	Open	13.80	1051.81	1051.81	0.01	0.00
8388	P-4186	911.00	8.00	130.00	Open	30.52	1218.29	1218.27	0.03	0.00
8389	P-4187	922.00	8.00	130.00	Open	-2.76	1218.03	1218.03	0.00	0.00
8390	P-4188	905.00	8.00	130.00	Open	5.91	1051.76	1051.76	0.00	0.00
8391	P-4189	922.00	8.00	130.00	Open	9.73	1057.29	1057.28	0.00	0.00
8392	P-4190	923.00	8.00	130.00	Open	6.04	1061.11	1061.11	0.00	0.00
8393	P-4191	917.00	8.00	130.00	Open	-3.78	1056.39	1056.39	0.00	0.00
8394	P-4192	919.00	8.00	130.00	Open	52.38	1052.09	1052.02	0.07	0.00
8395	P-4193	1075.00	8.00	130.00	Open	10.13	1060.00	1059.99	0.00	0.00
8396	P-4194	949.00	8.00	130.00	Open	-42.76	1057.63	1057.68	0.05	0.00
8397	P-4195	974.00	8.00	130.00	Open	2.32	1056.05	1056.05	0.00	0.00
8398	P-4196	928.00	8.00	130.00	Open	6.33	1052.04	1052.03	0.00	0.00
8399	P-4197	971.00	8.00	130.00	Open	12.09	1056.21	1056.20	0.00	0.00
8400	P-4198	1092.00	8.00	130.00	Open	4.64	1064.93	1064.93	0.00	0.00
8401	P-4199	997.00	8.00	130.00	Open	-10.84	1052.20	1052.20	0.00	0.00
8402	P-4200	983.00	8.00	130.00	Open	5.51	1051.83	1051.83	0.00	0.00
8403	P-4201	943.00	8.00	130.00	Open	9.23	1051.84	1051.83	0.00	0.00
8404	P-4202	953.00	8.00	130.00	Open	3.32	1064.81	1064.81	0.00	0.00
8405	P-4203	980.00	8.00	130.00	Open	15.24	1217.76	1217.75	0.01	0.00
8406	P-4204	963.00	8.00	130.00	Open	30.99	1218.31	1218.28	0.03	0.00
8407	P-4205	1058.00	8.00	130.00	Open	8.00	1059.01	1059.01	0.00	0.00
8408	P-4206	978.00	8.00	130.00	Open	-63.85	1051.10	1051.21	0.11	0.00
8409	P-4207	1265.00	8.00	130.00	Open	4.02	1322.91	1322.91	0.00	0.00
8410	P-4208	1012.00	8.00	130.00	Open	62.27	1060.26	1060.15	0.11	0.00
8411	P-4209	1005.00	8.00	130.00	Open	-1.97	1218.03	1218.03	0.00	0.00
8412	P-4210	995.00	8.00	130.00	Open	0.08	1057.32	1057.32	0.00	0.00
8414	P-4211	1251.00	8.00	130.00	Open	0.68	1057.29	1057.29	0.00	0.00
8416	P-4212	998.00	8.00	130.00	Open	31.75	1217.82	1217.79	0.03	0.00
8417	P-4213	1064.00	8.00	130.00	Open	-40.39	1057.58	1057.63	0.05	0.00
8418	P-4214	1006.00	8.00	130.00	Open	-40.96	1057.43	1057.48	0.05	0.00
8419	P-4215	1014.00	8.00	130.00	Open	-2.40	988.98	988.98	0.00	0.00
8420	P-4216	1026.00	8.00	130.00	Open	5.83	1056.91	1056.91	0.00	0.00
8421	P-4217	1044.00	8.00	130.00	Open	28.00	1057.32	1057.30	0.03	0.00
8422	P-4218	1086.00	8.00	130.00	Open	5.08	1051.80	1051.80	0.00	0.00
8423	P-4219	1289.00	8.00	130.00	Open	-5.80	1057.28	1057.28	0.00	0.00
8426	P-4221	1105.00	8.00	130.00	Open	3.69	1064.93	1064.93	0.00	0.00
8427	P-4222	1092.00	8.00	130.00	Open	-0.83	1057.32	1057.32	0.00	0.00
8428	P-4223	1124.00	8.00	130.00	Open	13.17	1051.81	1051.81	0.01	0.00
8429	P-4224	1166.00	8.00	130.00	Open	-13.66	1052.99	1053.00	0.01	0.00
8430	P-4225	1163.00	8.00	130.00	Open	-11.15	1057.30	1057.30	0.01	0.00
8431	P-4226	1166.00	8.00	130.00	Open	10.73	1054.25	1054.24	0.00	0.00
8432	P-4227	1290.00	8.00	130.00	Open	3.35	1064.91	1064.91	0.00	0.00
8433	P-4228	1220.00	8.00	130.00	Open	-11.00	1057.29	1057.30	0.01	0.00
8434	P-4229	1382.00	8.00	130.00	Open	71.48	1053.58	1053.38	0.19	0.00
8435	P-4230	1214.00	8.00	130.00	Open	31.47	1218.35	1218.31	0.04	0.00
8436	P-4231	1322.00	8.00	130.00	Open	-60.03	1051.22	1051.35	0.13	0.00
8437	P-4232	1307.00	8.00	130.00	Open	16.03	967.37	967.36	0.01	0.00
8438	P-4233	1453.00	8.00	130.00	Open	0.54	1057.32	1057.32	0.00	0.00
8439	P-4234	1464.00	8.00	130.00	Open	224.66	1054.42	1052.74	1.68	0.00
8440	P-4235	1332.00	8.00	130.00	Open	74.60	1053.81	1053.61	0.20	0.00
8441	P-4236	1360.00	8.00	130.00	Open	31.61	1057.40	1057.36	0.04	0.00
8442	P-4237	1425.00	8.00	130.00	Open	8.25	1053.00	1052.99	0.00	0.00
8443	P-4238	1410.00	8.00	130.00	Open	1.75	1057.28	1057.28	0.00	0.00
8445	P-4240	1862.00	8.00	130.00	Open	36.63	1052.10	1052.03	0.07	0.00
8446	P-4241	2504.00	8.00	130.00	Open	25.30	1052.42	1052.37	0.05	0.00
8447	P-4242	2538.00	8.00	130.00	Open	120.27	1055.79	1054.88	0.92	0.00
8448	P-4243	2410.00	8.00	130.00	Open	-47.57	1059.84	1060.00	0.16	0.00
8449	P-4244	2305.00	8.00	130.00	Open	7.34	1057.29	1057.28	0.00	0.00
8450	P-4245	2749.00	8.00	130.00	Open	-34.50	1052.40	1052.50	0.10	0.00
8451	P-4246	2640.00	8.00	130.00	Open	118.65	1054.66	1053.73	0.93	0.00
8452	P-4247	2638.00	8.00	130.00	Open	0.68	873.78	873.78	0.00	0.00
8454	P-4248	3442.00	8.00	130.00	Open	110.22	1057.88	1056.82	1.06	0.00
8455	P-4249	4140.00	8.00	130.00	Open	2.59	873.78	873.78	0.00	0.00
8456	P-4250	6.00	99.00	130.00	Open	0.23	1053.85	1053.85	0.00	0.00
8458	P-4251	11.00	99.00	130.00	Open	0.08	1053.85	1053.85	0.00	0.00
8460	P-4252	11.00	99.00	130.00	Open	0.08	1053.85	1053.85	0.00	0.00
8462	P-4253	11.00	99.00	130.00	Open	0.20	1218.35	1218.35	0.00	0.00
8464	P-4254	15.00	99.00	130.00	Open	1.50	960.64	960.64	0.00	0.00
8466	P-4255	18.00	99.00	130.00	Open	0.20	960.64	960.64	0.00	0.00
8468	P-4256	21.00	99.00	130.00	Open	0.48	1052.02	1052.02	0.00	0.00
8470	P-4257	22.00	99.00	130.00	Open	-0.08	1053.85	1053.85	0.00	0.00
8472	P-4258	28.00	99.00	130.00	Open	0.68	1051.95	1051.95	0.00	0.00
8474	P-4259	32.00	99.00	130.00	Open	-0.28	1052.68	1052.68	0.00	0.00
8476	P-4260	33.00	99.00	130.00	Open	0.68	1052.02	1052.02	0.00	0.00
8478	P-4261	36.00	99.00	130.00	Open	0.28	1051.96	1051.96	0.00	0.00
8480	P-4262	39.00	99.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
8482	P-4263	46.00	99.00	130.00	Open	0.48	1052.27	1052.27	0.00	0.00
8484	P-4264	47.00	99.00	130.00	Open	-0.48	1052.68	1052.68	0.00	0.00
8486	P-4265	50.00	99.00	130.00	Open	-1.68	1054.20	1054.20	0.00	0.00
8489	P-4266	68.00	99.00	130.00	Open	-0.48	1052.51	1052.51	0.00	0.00
8492	P-4267	75.00	99.00	130.00	Open	0.68	1051.96	1051.96	0.00	0.00
8494	P-4268	77.00	99.00	130.00	Open	-0.48	1052.51	1052.51	0.00	0.00
8497	P-4269	128.00	99.00	130.00	Open	0.55	967.07	967.07	0.00	0.00
8499	P-4270	207.00	99.00	130.00	Open	0.48	1053.99	1053.99	0.00	0.00
8501	P-4271	155.00	99.00	130.00	Open	-0.08	1052.22	1052.22	0.00	0.00
8503	P-4272	206.00	99.00	130.00	Open	-0.28	1064.98	1064.98	0.00	0.00
8505	P-4273	166.00	99.00	130.00	Open	0.48	1051.96	1051.96	0.00	0.00
8507	P-4274	188.00	99.00	130.00	Open	1.24	1054.31	1054.31	0.00	0.00
8508	P-4275	168.00	99.00	130.00	Open	0.68	1057.76	1057.76	0.00	0.00
8510	P-4276	174.00	99.00	130.00	Open	0.08	1052.51	1052.51	0.00	0.00

Link ID	Link Label	Length (ft)	Diameter (in)	Roughness Coefficient	Control Status	Discharge (gpm)	Upstream	Downstream	Headloss (ft)	Headloss Gradient (ft/1000ft)
							Hydraulic Grade (ft)	Hydraulic Grade (ft)		
8512	P-4277	213.00	99.00	130.00	Open	0.68	1051.82	1051.82	0.00	0.00
8514	P-4278	209.00	99.00	130.00	Open	0.99	1052.51	1052.51	0.00	0.00
8515	P-4279	227.00	99.00	130.00	Open	2.10	1052.51	1052.51	0.00	0.00
8516	P-4280	260.00	99.00	130.00	Open	-0.48	1052.07	1052.07	0.00	0.00
8518	P-4281	243.00	99.00	130.00	Open	0.08	1051.81	1051.81	0.00	0.00
8520	P-4282	245.00	99.00	130.00	Open	0.68	1064.91	1064.91	0.00	0.00
8522	P-4283	251.00	99.00	130.00	Open	-6.12	1052.45	1052.45	0.00	0.00
8524	P-4284	261.00	99.00	130.00	Open	0.08	1051.74	1051.74	0.00	0.00
8526	P-4285	312.00	99.00	130.00	Open	-0.72	1022.90	1022.90	0.00	0.00
8528	P-4286	290.00	99.00	130.00	Open	-0.48	1052.68	1052.68	0.00	0.00
8530	P-4287	444.00	99.00	130.00	Open	1.75	1052.51	1052.51	0.00	0.00
8531	P-4288	461.00	99.00	130.00	Open	0.43	1052.51	1052.51	0.00	0.00
8532	P-4289	477.00	99.00	130.00	Open	-2.77	1054.20	1054.20	0.00	0.00
8533	P-4290	601.00	99.00	130.00	Open	0.31	1075.00	1075.00	0.00	0.00
8535	P-4291	724.00	99.00	130.00	Open	-0.08	1075.00	1075.00	0.00	0.00
8537	P-4292	786.00	99.00	130.00	Open	-0.48	1064.94	1064.94	0.00	0.00
8539	P-4293	1004.00	99.00	130.00	Open	-0.08	1075.00	1075.00	0.00	0.00
8541	P-4294	876.00	99.00	130.00	Open	0.46	1075.00	1075.00	0.00	0.00
499	P-Graves_Mill	64.00	12.00	130.00	Open	-0.28	1051.96	1051.96	0.00	0.00
2065	P-Hawkins_Mill	709.00	20.00	130.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
1409	P-Lakeside	22.00	16.00	130.00	Open	-0.08	1052.04	1052.04	0.00	0.00

BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013

Run 2 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.
Proposed Water System.

All Tanks at Normal Low Level & Proposed Transmission Main - Closed.

Steady State Analysis

Tank Report

Node Label	Base Elevation (ft)	Minimum Elevation (ft)	Initial Elevation (ft)	Maximum Elevation (ft)	Diameter (ft)	Inflow (gpm)	Hydraulic Grade (ft)
Althea_Grove_Tank	1032.50	1032.50	1065.00	1075.50	68.92	-1134.34	1065.00
Fox_Run_Tank	1000.00	1196.03	1201.29	1201.39	2.67	-3.75	1201.29
Huntingwood_Tank	1050.00	1050.00	1065.00	1082.00	100.00	-226.68	1065.00
New_London_Tank	1031.32	1031.32	1065.00	1075.50	67.00	-772.77	1065.00
Parkway_Tank	1279.00	1279.00	1323.01	1329.00	60.00	-42.97	1323.01
Smith_Mountain_Lake_Tank	1046.50	1180.00	1219.01	1224.18	62.07	-525.51	1219.01
Stewartsville_Tank	1249.98	1249.98	1249.99	1250.00	10.00	(N/A)	(N/A)
R-4	--	--	--	--	--	-0.54	1075.00
R-Abert_WTP	--	--	--	--	--	0.00	800.00
R-Falling_Creek	--	--	--	--	--	0.00	1670.00
R-High_Point_Cleanwell	--	--	--	--	--	0.00	971.50
R-Lynchburg_WTP	--	--	--	--	--	0.00	1200.00
R-Camp_24	--	--	--	--	--	(N/A)	(N/A)

Pump Report

Pump Label	Elevation (ft)	Control Status	Intake Pump Grade (ft)	Discharge Pump Grade (ft)	Discharge (gpm)	Pump Head (ft)
PMP-Abert_WTP	0.00	Off	800.00	1,064.94	0.00	0.00
PMP-Camp_24	1,000.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)
PMP-Fox_Run	1,007.36	Off	1,064.96	1,201.29	0.00	0.00
PMP-High_Point_WTP	936.97	Off	971.50	1,218.60	0.00	0.00
PMP-New_London	912.00	Off	1,064.63	1,065.00	0.00	0.00

Valve Report

Valve Label	Elevation (ft)	Diameter (in)	Control Status	Discharge (gpm)	Upstream Hydraulic Grade (ft)	Downstream Hydraulic Grade (ft)	Headloss (ft)
PRV-8	928.06	6.00	Inactive	10.96	1,064.98	1,064.98	0.00
PRV-9	885.56	6.00	Inactive	22.63	1,064.94	1,064.94	0.00
PRV-10	895.29	6.00	Inactive	7.40	1,064.94	1,064.94	0.00
PRV-27	880.00	6.00	<None>	(N/A)	(N/A)	(N/A)	(N/A)
PRV-Bateman_Bridge	905.20	6.00	Active	57.48	1,051.03	981.50	69.53
PRV-Beechwood	922.00	3.00	Active	26.10	1,218.12	991.36	226.76
PRV-Benni_Court	848.00	2.00	Active	1.58	1,218.03	963.61	254.42
PRV-Cardinal_Road	846.81	1.50	Active	0.46	1,217.75	962.42	255.33
PRV-Cottontown_Road	813.68	6.00	Active	28.46	1,054.95	963.97	90.98
PRV-Forestdale	856.03	6.00	Active	10.49	1,051.96	994.76	57.20
PRV-Forty_Acres	828.70	4.00	Active	5.66	1,218.02	967.43	250.60
PRV-Franklin_County	803.07	6.00	Inactive	257.22	1,215.48	1,215.48	0.00
PRV-Graves_Mill_Road	848.00	10.00	Inactive	-52.61	1,051.96	1,051.96	0.00
PRV-Gross_Point	856.72	4.00	Active	8.38	1,217.75	960.77	256.98
PRV-Harbor_Heights	907.00	6.00	Active	2.39	1,217.85	1,068.85	149.00
PRV-Highpoint_Road	942.03	3.00	Active	12.39	1,218.60	1,022.96	195.64
PRV-Highpoint_Section_8	950.00	3.00	Active	4.20	1,218.60	1,019.36	199.24
PRV-Homestead_Drive	849.86	8.00	Closed	0.00	1,051.96	981.48	0.00
PRV-Isle_of_Pines	901.00	4.00	Active	30.59	1,218.28	993.49	224.79
PRV-Lake_Estates	874.89	4.00	Active	16.42	1,217.81	967.37	250.44
PRV-Lake_Vista	814.36	6.00	Inactive	228.45	1,054.94	1,054.94	0.00
PRV-New_London	785.92	6.00	Active	3.35	1,056.91	873.78	183.13
PRV-Park_Shores	873.38	4.00	Active	7.26	1,218.11	988.99	229.13
PRV-Ridgeview_Drive	740.00	6.00	Active	6.56	1,055.61	825.55	230.06
PRV-Sign_N_Pine	845.98	1.50	Active	4.37	1,217.73	961.59	256.14
PRV-Waterways	858.00	2.00	Active	11.48	1,217.77	973.61	244.17

BEDFORD COUNTY PSA WATER SYSTEMS
HYDRAULIC ANALYSIS
MAY 13, 2013

Run 2 - Twice Average Daily Demand plus maximum available fire flow calculated for each junction.
Proposed Water System.

All Tanks at Normal Low Level & Proposed Transmission Main - Closed.

Steady State Analysis

Fire Flow Report - sorted by Available Fire Flow

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
8695	J-4226	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8701	J-4227	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8705	J-4228	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8707	J-4229	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8709	J-4230	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8713	J-4231	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8716	J-4232	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8719	J-4233	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8721	J-4234	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
8722	J-4235	<None>	(N/A)	1.00	(N/A)	(N/A)	(N/A)	20.00	(N/A)	20.00	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
386	J-210	Tank_Node	FALSE	1.00	0.00	1.08	0.08	20.00	20.84	20.00	17.28	J-1198	(N/A)	17.28	J-1198
387	J-211	Tank_Node	FALSE	1.00	0.00	1.08	0.08	20.00	20.50	20.00	17.28	J-1198	(N/A)	17.28	J-1198
2243	J-1198	Tank_Node	FALSE	1.00	0.00	2.08	1.08	20.00	17.28	20.00	20.50	J-211	(N/A)	20.50	J-211
33	J-4	Forest	TRUE	1.00	37.73	1.68	38.41	20.00	21.32	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2354	J-1262	Forest	TRUE	1.00	39.06	2.48	40.54	20.00	20.15	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2295	J-1229	Forest	TRUE	1.00	48.65	1.88	49.53	20.00	44.38	20.00	20.01	J-1262	(N/A)	17.28	J-1198
2296	J-1230	Forest	TRUE	1.00	48.67	2.48	50.15	20.00	30.04	20.00	20.00	J-1262	(N/A)	17.28	J-1198
2035	J-1076	Lakes	TRUE	1.00	59.98	2.06	61.04	20.00	20.01	20.00	31.53	J-1360	(N/A)	17.28	J-1198
2032	J-1074	Forest	TRUE	1.00	65.55	1.68	66.23	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2027	J-1071	Lakes	TRUE	1.00	71.15	1.55	71.70	20.00	20.18	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2024	J-1069	Lakes	TRUE	1.00	76.50	1.37	76.87	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2030	J-1073	Forest	TRUE	1.00	79.80	1.08	79.87	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2002	J-1056	Lakes	TRUE	1.00	84.33	1.63	84.97	20.00	20.11	20.00	29.92	J-1360	(N/A)	17.28	J-1198
2015	J-1064	Lakes	TRUE	1.00	87.42	1.46	87.88	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2007	J-1059	Forest	TRUE	1.00	87.87	2.88	89.75	20.00	20.08	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2018	J-1066	Lakes	TRUE	1.00	88.46	1.37	88.84	20.00	20.04	20.00	30.76	J-1575	(N/A)	17.28	J-1198
2020	J-1067	Lakes	TRUE	1.00	90.23	1.72	90.95	20.00	20.04	20.00	32.33	J-1575	(N/A)	17.28	J-1198
1961	J-1029	Forest	TRUE	1.00	93.62	2.08	94.70	20.00	20.15	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2012	J-1062	Lakes	TRUE	1.00	93.71	1.89	94.60	20.00	20.07	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2225	J-1188	Forest	TRUE	1.00	94.21	1.08	94.29	20.00	46.49	20.00	20.01	J-1262	(N/A)	17.28	J-1198
2224	J-1187	Forest	TRUE	1.00	94.24	1.68	94.92	20.00	38.12	20.00	20.00	J-1262	(N/A)	17.28	J-1198
2316	J-1242	Forest	TRUE	1.00	95.18	1.88	96.06	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1825	J-941	Forest	TRUE	1.00	98.25	1.68	98.92	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1976	J-1039	Lakes	TRUE	1.00	104.36	1.46	104.82	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2005	J-1058	Lakes	TRUE	1.00	107.63	1.72	108.35	20.00	20.05	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1996	J-1052	Fox_Run	TRUE	1.00	108.28	1.88	109.16	20.00	20.01	20.00	53.56	J-1337	(N/A)	17.28	J-1198
1993	J-1050	Lakes	TRUE	1.00	108.80	1.46	109.26	20.00	20.33	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1956	J-1026	Lakes	TRUE	1.00	110.64	1.37	111.01	20.00	20.25	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1726	J-877	Forest	TRUE	1.00	110.67	1.48	111.15	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1970	J-1035	Lakes	TRUE	1.00	111.60	1.72	112.32	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1987	J-1046	Lakes	TRUE	1.00	111.77	1.55	112.31	20.00	20.22	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1937	J-1013	Lakes	TRUE	1.00	111.90	1.63	112.53	20.00	20.33	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1944	J-1018	Forest	TRUE	1.00	113.30	1.88	114.18	20.00	20.00	20.00	24.30	J-1197	(N/A)	17.22	J-1198
1931	J-1009	Lakes	TRUE	1.00	115.88	1.37	116.25	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1972	J-1036	Forest	TRUE	1.00	116.84	1.68	117.52	20.00	20.11	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1998	J-1053	Lakes	TRUE	1.00	118.01	1.55	118.56	20.00	20.09	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1906	J-993	Forest	TRUE	1.00	118.99	1.68	119.67	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1947	J-1020	Forest	TRUE	1.00	121.30	1.88	122.18	20.00	20.24	20.00	24.36	J-1197	(N/A)	17.28	J-1198
30	J-2	Forest	TRUE	1.00	122.35	1.08	122.42	20.00	20.28	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2321	J-1244	Lakes	TRUE	1.00	127.62	1.37	127.99	20.00	20.01	20.00	21.04	J-1374	(N/A)	17.28	J-1198
1941	J-1016	Forest	TRUE	1.00	128.69	1.88	129.57	20.00	20.26	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2558	J-1374	Lakes	TRUE	1.00	129.39	1.29	129.67	20.00	20.04	20.00	23.64	J-1245	(N/A)	17.28	J-1198
2363	J-1267	Forest	TRUE	1.00	130.43	1.68	131.11	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2322	J-1245	Lakes	TRUE	1.00	131.47	1.37	131.84	20.00	22.32	20.00	20.05	J-1374	(N/A)	17.28	J-1198
2694	J-1452	Lakes	TRUE	1.00	131.65	1.37	132.02	20.00	47.65	20.00	20.00	J-1374	(N/A)	17.28	J-1198
1735	J-883	Lakes	TRUE	1.00	131.65	1.29	131.94	20.00	46.68	20.00	20.00	J-1374	(N/A)	17.28	J-1198
2695	J-1453	Lakes	TRUE	1.00	131.65	1.63	132.29	20.00	39.17	20.00	20.00	J-1374	(N/A)	17.28	J-1198
2026	J-1070	Lakes	TRUE	1.00	131.66	1.20	131.86	20.00	24.73	20.00	20.00	J-1374	(N/A)	17.28	J-1198
1734	J-882	Lakes	TRUE	1.00	131.66	1.46	132.12	20.00	30.85	20.00	20.00	J-1374	(N/A)	17.28	J-1198
2422	J-1297	Lakes	TRUE	1.00	131.66	1.20	131.86	20.00	24.70	20.00	20.00	J-1374	(N/A)	17.28	J-1198
1929	J-1008	Lakes	TRUE	1.00	132.11	1.29	132.39	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1979	J-1041	Forest	TRUE	1.00	133.53	1.68	134.21	20.00	20.00	20.00	24.32	J-1197	(N/A)	17.24	J-1198
1909	J-995	Lakes	TRUE	1.00	134.28	1.55	134.83	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1983	J-1043	Forest	TRUE	1.00	138.47	1.88	139.35	20.00	20.00	20.00	24.35	J-1197	(N/A)	17.27	J-1198
1964	J-1031	Forest	TRUE	1.00	142.64	1.88	143.52	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1874	J-973	Lakes	TRUE	1.00	143.23	1.46	143.69	20.00	20.00	20.00	24.35	J-1360	(N/A)	17.28	J-1198
1879	J-976	Forest	TRUE	1.00	143.90	1.48	144.38	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1893	J-985	Lakes	TRUE	1.00	144.20	1.63	144.84	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1635	J-819	Lakes	TRUE	1.00	145.22	1.37	145.59	20.00	35.22	20.00	20.00	J-1374	(N/A)	17.28	J-1198
1636	J-820	Lakes	TRUE	1.00	145.22	1.46	145.68	20.00	32.25	20.00	20.00	J-1374	(N/A)	17.28	J-1198
1904	J-992	Forest	TRUE	1.											

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1782	J-913	Forest	TRUE	1.00	160.25	1.48	160.73	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1898	J-988	Forest	TRUE	1.00	163.41	3.09	165.49	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1685	J-850	Forest	TRUE	1.00	164.93	2.28	166.21	20.00	20.14	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1918	J-1001	Forest	TRUE	1.00	166.64	1.48	167.12	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2013	J-1063	Lakes	TRUE	1.00	167.09	1.46	167.55	20.00	26.40	20.00	20.32	J-1062	(N/A)	17.28	J-1198
2269	J-1213	Lakes	TRUE	1.00	167.48	1.72	168.20	20.00	20.02	20.00	29.08	J-1214	(N/A)	17.28	J-1198
1901	J-990	Forest	TRUE	1.00	169.63	1.88	170.51	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1887	J-981	Forest	TRUE	1.00	169.87	1.48	170.34	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2717	J-1466	Lakes	TRUE	1.00	170.19	1.20	170.38	20.00	20.02	20.00	31.23	J-1365	(N/A)	17.28	J-1198
1729	J-879	Lakes	TRUE	1.00	170.40	1.89	171.30	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2022	J-1068	Lakes	TRUE	1.00	170.82	1.20	171.02	20.00	20.13	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1868	J-969	Forest	TRUE	1.00	171.51	2.28	172.79	20.00	20.00	20.00	24.35	J-1197	(N/A)	17.27	J-1198
1877	J-975	Forest	TRUE	1.00	171.82	2.48	173.30	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1818	J-936	Forest	TRUE	1.00	173.72	1.88	174.61	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2545	J-1366	Lakes	TRUE	1.00	175.78	1.20	175.98	20.00	31.14	20.00	20.00	J-1466	(N/A)	17.28	J-1198
2544	J-1365	Lakes	TRUE	1.00	175.78	1.29	176.07	20.00	28.99	20.00	20.00	J-1466	(N/A)	17.28	J-1198
32	J-3	Forest	TRUE	1.00	176.95	1.28	177.22	20.00	20.27	20.00	22.86	J-4	(N/A)	17.27	J-1198
2128	J-1127	Lakes	TRUE	1.00	177.38	1.72	178.10	20.00	49.37	20.00	20.00	J-1374	(N/A)	17.28	J-1198
2036	J-1077	Lakes	TRUE	1.00	177.68	1.81	178.48	20.00	21.94	20.00	20.04	J-1360	(N/A)	17.28	J-1198
3026	J-1627	Forest	TRUE	1.00	177.80	2.48	179.28	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2534	J-1360	Lakes	TRUE	1.00	177.89	1.46	178.34	20.00	20.01	20.00	22.58	J-1077	(N/A)	17.28	J-1198
1873	J-972	Lakes	TRUE	1.00	177.99	2.34	179.32	20.00	50.94	20.00	20.00	J-1360	(N/A)	17.28	J-1198
2917	J-1578	Lakes	TRUE	1.00	177.99	1.37	178.36	20.00	65.28	20.00	20.00	J-1360	(N/A)	17.28	J-1198
2001	J-1055	Lakes	TRUE	1.00	177.99	1.37	178.36	20.00	28.38	20.00	20.00	J-1360	(N/A)	17.28	J-1198
1967	J-1033	Forest	TRUE	1.00	178.59	2.08	179.68	20.00	20.00	20.00	24.35	J-1197	(N/A)	17.27	J-1198
1698	J-859	Forest	TRUE	1.00	181.03	1.48	181.51	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2341	J-1255	Lakes	TRUE	1.00	182.95	1.81	183.76	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1802	J-926	Forest	TRUE	1.00	182.96	1.28	183.24	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8498	J-4202	Lakes	TRUE	1.00	183.30	1.55	183.84	20.00	21.47	20.00	20.25	J-1139	(N/A)	17.28	J-1198
1975	J-1038	Lakes	TRUE	1.00	183.60	1.20	183.80	20.00	21.05	20.00	20.34	J-1039	(N/A)	17.28	J-1198
2146	J-1139	Lakes	TRUE	1.00	183.77	1.37	184.14	20.00	20.06	20.00	21.28	J-4202	(N/A)	17.28	J-1198
2420	J-1296	Lakes	TRUE	1.00	184.43	1.29	184.72	20.00	20.02	20.00	20.02	J-1295	(N/A)	17.28	J-1198
2419	J-1295	Lakes	TRUE	1.00	184.46	1.55	185.00	20.00	20.01	20.00	20.04	J-1296	(N/A)	17.28	J-1198
2505	J-1344	Lakes	TRUE	1.00	185.17	1.20	185.37	20.00	26.64	20.00	20.14	J-1466	(N/A)	17.28	J-1198
2469	J-1325	Lakes	TRUE	1.00	185.19	1.20	185.39	20.00	26.93	20.00	20.14	J-1466	(N/A)	17.28	J-1198
2468	J-1324	Lakes	TRUE	1.00	185.19	1.29	185.48	20.00	27.09	20.00	20.14	J-1466	(N/A)	17.28	J-1198
2762	J-1493	Lakes	TRUE	1.00	185.55	1.37	185.92	20.00	28.51	20.00	20.00	J-1466	(N/A)	17.28	J-1198
2245	J-1199	Lakes	TRUE	1.00	186.52	1.81	187.32	20.00	20.00	20.00	27.67	J-1427	(N/A)	17.28	J-1198
3021	J-1624	Forest	TRUE	1.00	187.18	2.08	188.26	20.00	20.00	20.00	24.35	J-1197	(N/A)	17.27	J-1198
1890	J-983	Forest	TRUE	1.00	187.95	1.88	188.83	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1791	J-919	Forest	TRUE	1.00	188.23	1.88	189.11	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2352	J-1261	Lakes	TRUE	1.00	189.21	1.72	189.93	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1709	J-866	Lakes	TRUE	1.00	189.45	1.20	189.65	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1938	J-1014	Lakes	TRUE	1.00	190.42	1.72	191.14	20.00	20.00	20.00	23.80	J-1013	(N/A)	17.28	J-1198
2270	J-1214	Lakes	TRUE	1.00	190.88	2.06	191.94	20.00	20.02	20.00	23.83	J-1213	(N/A)	17.28	J-1198
8527	J-4215	Lakes	TRUE	1.00	191.40	1.72	192.12	20.00	31.78	20.00	20.08	J-839	(N/A)	17.28	J-1198
2941	J-1590	Lakes	TRUE	1.00	191.41	1.89	192.31	20.00	35.27	20.00	20.07	J-839	(N/A)	17.28	J-1198
2940	J-1589	Lakes	TRUE	1.00	191.42	1.81	192.22	20.00	32.90	20.00	20.07	J-839	(N/A)	17.28	J-1198
2289	J-1225	Lakes	TRUE	1.00	191.72	1.89	192.61	20.00	20.01	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1668	J-839	Lakes	TRUE	1.00	191.74	1.37	192.11	20.00	20.00	20.00	31.24	J-1575	(N/A)	17.28	J-1198
1862	J-965	Forest	TRUE	1.00	192.34	2.28	193.62	20.00	20.03	20.00	24.34	J-1197	(N/A)	17.27	J-1198
2145	J-1138	Lakes	TRUE	1.00	192.83	1.20	193.03	20.00	20.10	20.00	21.64	J-1139	(N/A)	17.28	J-1198
1813	J-933	Forest	TRUE	1.00	193.73	1.48	194.21	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1884	J-979	Forest	TRUE	1.00	194.34	1.88	195.22	20.00	20.01	20.00	24.34	J-1197	(N/A)	17.27	J-1198
1855	J-960	Forest	TRUE	1.00	194.75	1.88	195.63	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2281	J-1221	Lakes	TRUE	1.00	195.85	1.55	196.39	20.00	20.00	20.00	22.48	J-1427	(N/A)	17.28	J-1198
3024	J-1626	Forest	TRUE	1.00	195.88	4.69	199.57	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1881	J-977	Forest	TRUE	1.00	197.65	2.28	198.93	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2619	J-1409	Lakes	TRUE	1.00	197.93	1.55	198.47	20.00	21.39	20.00	20.23	J-1138	(N/A)	17.28	J-1198
2227	J-1189	Lakes	TRUE	1.00	198.00	1.20	198.20	20.00	22.41	20.00	20.21	J-1138	(N/A)	17.28	J-1198
1932	J-1010	Lakes	TRUE	1.00	198.04	1.55	198.59	20.00	22.70	20.00	20.19	J-1138	(N/A)	17.28	J-1198
2650	J-1427	Lakes	TRUE	1.00	198.15	1.55	198.70	20.00	20.01	20.00	29.51	J-1220	(N/A)	17.28	J-1198
1767	J-904	Forest	TRUE	1.00	198.71	1.48	199.19	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1859	J-963	Forest	TRUE	1.00	198.84	1.68	199.52	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1712	J-868	Lakes	TRUE	1.00	200.85	1.46	201.31	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2548	J-1368	Lakes	TRUE	1.00	201.42	1.29	201.71	20.00	29.82	20.00	20.00	J-1466	(N/A)	17.28	J-1198
8467	J-4185	Lakes	TRUE	1.00	201.43	1.20	201.62	20.00	31.50	20.00	20.00	J-1466	(N/A)	17.28	J-1198
1959	J-1028	Forest	TRUE	1.00	202.13	1.48	202.61	20.00	20.00	20.00	24.34	J-1197	(N/A)	17.27	J-1198
8465	J-4184	Lakes	TRUE	1.00	203.69	2.50	205.19	20.00	26.68	20.00	20.16	J-1466	(N/A)	17.28	J-1198
2620	J-1410	Lakes	TRUE	1.00	203.82	2.24	205.05	20.00	22.51	20.00	20.20	J-1138	(N/A)	17.28	J-1198
2547	J-1367	Lakes	TRUE	1.00	204.16	1.29	204.45	20.00	27.66	20.00	20.00	J-1466	(N/A)	17.28	J-1198
1950	J-1022	Stewartsville	TRUE	1.00	205.14	1.40	205.54	20.00	20.04	20.00	60.33	J-676	(N/A)	17.28	J-1198
1747	J-891	Forest	TRUE	1.00	205.58	1.48	206.06	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1662	J-835	Lakes	TRUE	1.00	205.79	1.20	205.99	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1796	J-922	Forest	TRUE	1.00	206.82	1.48	207.30	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1853	J-959	Forest	TRUE	1.00	206.93	3.49	209.42	20.00	20.21	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8521	J-4212	Forest	TRUE	1.00	209.22	1.68	209.90	20.00	23.83	20.00	20.54	J-1264	(N/A)	17.26	J-1198
2357	J-1264	Forest	TRUE	1.00	209.80	1.88	210.68	20.00	20.15	20.00	23.44	J-4212	(N/A)	17.26	J-1198
1822	J-939	Forest	TRUE	1.00	210.54	1.68	211.22	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1955	J-1025	Lakes	TRUE	1.00	211.04	1.37	211.41	20.00	21.15	20.00	20.33	J-1026	(N/A)	17.28	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2217	J-1183	Lakes	TRUE	1.00	220.12	1.46	220.58	20.00	20.02	20.00	31.31	J-1182	(N/A)	17.28	J-1198
1741	J-887	Forest	TRUE	1.00	222.40	1.68	223.08	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1832	J-945	Forest	TRUE	1.00	222.47	1.48	222.95	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2097	J-1107	Lakes	TRUE	1.00	223.22	1.72	223.94	20.00	25.76	20.00	20.26	J-1199	(N/A)	17.28	J-1198
2098	J-1108	Lakes	TRUE	1.00	223.36	1.20	223.56	20.00	29.13	20.00	20.21	J-1199	(N/A)	17.28	J-1198
2117	J-1120	Lakes	TRUE	1.00	223.51	1.55	224.06	20.00	20.01	20.00	20.01	J-1049	(N/A)	17.28	J-1198
1838	J-949	Forest	TRUE	1.00	224.75	1.48	225.23	20.00	20.03	20.00	24.34	J-1197	(N/A)	17.26	J-1198
1732	J-881	Forest	TRUE	1.00	224.88	1.48	225.35	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1697	J-858	Forest	TRUE	1.00	225.37	1.48	225.85	20.00	20.02	20.00	20.29	J-859	(N/A)	17.28	J-1198
1816	J-935	Forest	TRUE	1.00	226.23	1.68	226.91	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1674	J-843	Lakes	TRUE	1.00	227.35	1.20	227.55	20.00	20.00	20.00	32.47	J-1586	(N/A)	17.28	J-1198
1934	J-1011	Forest	TRUE	1.00	228.48	1.48	228.96	20.00	20.01	20.00	24.34	J-1197	(N/A)	17.26	J-1198
1805	J-928	Forest	TRUE	1.00	230.72	1.48	231.19	20.00	20.00	20.00	24.35	J-1197	(N/A)	17.27	J-1198
2333	J-1251	Lakes	TRUE	1.00	231.27	1.89	232.16	20.00	20.00	20.00	29.33	J-1586	(N/A)	17.28	J-1198
2276	J-1218	Forest	TRUE	1.00	232.14	1.88	233.02	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2004	J-1057	Lakes	TRUE	1.00	232.76	1.46	233.22	20.00	20.00	20.00	26.38	J-1058	(N/A)	17.28	J-1198
2304	J-1235	Lakes	TRUE	1.00	236.18	1.63	236.81	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5551	J-2957	Forest	TRUE	1.00	236.84	1.48	237.32	20.00	20.23	20.00	20.25	J-1591	(N/A)	17.28	J-1198
2945	J-1592	Forest	TRUE	1.00	236.98	1.68	237.66	20.00	22.41	20.00	20.17	J-2957	(N/A)	17.28	J-1198
8453	J-4179	Forest	TRUE	1.00	236.99	1.68	237.67	20.00	119.00	20.00	20.17	J-2957	(N/A)	17.28	J-1198
6157	J-3306	Forest	TRUE	1.00	236.99	1.68	237.67	20.00	51.75	20.00	20.17	J-2957	(N/A)	17.28	J-1198
6158	J-3307	Forest	TRUE	1.00	236.99	1.68	237.67	20.00	51.81	20.00	20.17	J-2957	(N/A)	17.28	J-1198
2029	J-1072	Forest	TRUE	1.00	236.99	1.48	237.47	20.00	51.69	20.00	20.16	J-2957	(N/A)	17.28	J-1198
6298	J-3391	Forest	TRUE	1.00	236.99	1.48	237.47	20.00	51.24	20.00	20.16	J-2957	(N/A)	17.28	J-1198
6297	J-3390	Forest	TRUE	1.00	237.00	1.28	237.27	20.00	50.88	20.00	20.16	J-2957	(N/A)	17.28	J-1198
5800	J-3102	Forest	TRUE	1.00	237.25	1.68	237.93	20.00	26.37	20.00	20.03	J-2957	(N/A)	17.28	J-1198
5799	J-3101	Forest	TRUE	1.00	237.27	1.08	237.35	20.00	26.20	20.00	20.01	J-2957	(N/A)	17.28	J-1198
3175	J-1719	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	33.63	20.00	20.00	J-2957	(N/A)	17.28	J-1198
2478	J-1329	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	32.37	20.00	20.00	J-2957	(N/A)	17.28	J-1198
3174	J-1718	Forest	TRUE	1.00	237.30	1.28	237.58	20.00	33.96	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4628	J-2432	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	32.56	20.00	20.00	J-2957	(N/A)	17.28	J-1198
2479	J-1330	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	31.98	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4415	J-2318	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	32.10	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4627	J-2431	Forest	TRUE	1.00	237.30	1.48	237.78	20.00	32.48	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4978	J-2629	Forest	TRUE	1.00	237.30	1.28	237.58	20.00	33.13	20.00	20.00	J-2957	(N/A)	17.28	J-1198
5647	J-3013	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	29.71	20.00	20.00	J-2957	(N/A)	17.28	J-1198
5646	J-3012	Forest	TRUE	1.00	237.30	1.48	237.78	20.00	29.67	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4386	J-2309	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	28.64	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4972	J-2626	Forest	TRUE	1.00	237.30	1.28	237.58	20.00	28.70	20.00	20.00	J-2957	(N/A)	17.28	J-1198
1903	J-991	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	27.89	20.00	20.00	J-2957	(N/A)	17.28	J-1198
3124	J-1689	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	27.77	20.00	20.00	J-2957	(N/A)	17.28	J-1198
4848	J-2554	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	27.55	20.00	20.00	J-2957	(N/A)	17.28	J-1198
2944	J-1591	Forest	TRUE	1.00	237.30	1.08	237.38	20.00	20.01	20.00	20.00	J-2957	(N/A)	17.28	J-1198
1762	J-901	Forest	TRUE	1.00	239.26	1.88	240.14	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2258	J-1207	Forest	TRUE	1.00	239.41	1.88	240.29	20.00	20.02	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2338	J-1253	Lakes	TRUE	1.00	240.18	2.41	241.59	20.00	20.11	20.00	32.50	J-1427	(N/A)	17.28	J-1198
1794	J-921	Forest	TRUE	1.00	241.25	1.88	242.13	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2187	J-1165	Lakes	TRUE	1.00	241.30	1.72	242.02	20.00	20.00	20.00	24.00	J-1164	(N/A)	17.28	J-1198
2167	J-1152	Forest	TRUE	1.00	241.49	1.68	242.17	20.00	20.02	20.00	24.26	J-1197	(N/A)	17.18	J-1198
1799	J-924	Forest	TRUE	1.00	244.52	1.28	244.80	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2290	J-1226	Lakes	TRUE	1.00	247.81	1.55	248.35	20.00	24.08	20.00	20.07	J-1225	(N/A)	17.28	J-1198
1785	J-915	Forest	TRUE	1.00	249.41	1.88	250.29	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1650	J-828	Fox_Run	TRUE	1.00	249.74	1.48	250.22	20.00	20.00	20.00	39.48	J-1337	(N/A)	17.28	J-1198
1753	J-895	Forest	TRUE	1.00	252.63	1.88	253.51	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2186	J-1164	Lakes	TRUE	1.00	254.84	2.41	256.26	20.00	20.00	20.00	28.08	J-1165	(N/A)	17.28	J-1198
7012	J-3811	Forest	TRUE	1.00	254.89	1.28	255.17	20.00	20.82	20.00	20.20	J-1602	(N/A)	17.28	J-1198
2909	J-1575	Lakes	TRUE	1.00	255.16	1.37	255.53	20.00	20.02	20.00	20.84	J-1360	(N/A)	17.28	J-1198
2017	J-1065	Lakes	TRUE	1.00	255.33	1.63	255.96	20.00	37.42	20.00	20.00	J-1575	(N/A)	17.28	J-1198
2972	J-1602	Forest	TRUE	1.00	255.33	1.28	255.61	20.00	20.00	20.00	20.68	J-3811	(N/A)	17.28	J-1198
2978	J-1605	Lakes	TRUE	1.00	255.33	2.06	256.40	20.00	45.55	20.00	20.00	J-1575	(N/A)	17.28	J-1198
1671	J-841	Stewartsville	TRUE	1.00	257.50	1.55	258.05	20.00	20.06	20.00	59.85	J-676	(N/A)	17.28	J-1198
1588	J-789	Lakes	TRUE	1.00	258.93	1.81	259.74	20.00	25.26	20.00	20.03	J-1622	(N/A)	17.28	J-1198
1728	J-878	Lakes	TRUE	1.00	259.85	1.55	260.40	20.00	21.92	20.00	20.09	J-879	(N/A)	17.28	J-1198
2273	J-1216	Lakes	TRUE	1.00	260.43	1.72	261.15	20.00	20.10	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1720	J-873	Forest	TRUE	1.00	260.77	1.48	261.24	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2216	J-1182	Lakes	TRUE	1.00	262.24	2.06	263.30	20.00	20.02	20.00	21.18	J-1183	(N/A)	17.28	J-1198
1844	J-953	Forest	TRUE	1.00	262.48	1.88	263.36	20.00	20.01	20.00	24.34	J-1197	(N/A)	17.26	J-1198
2263	J-1210	Lakes	TRUE	1.00	262.59	1.63	263.22	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1756	J-897	Forest	TRUE	1.00	266.02	1.48	266.49	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2659	J-1432	Lakes	TRUE	1.00	267.99	1.72	268.71	20.00	22.03	20.00	20.07	J-1138	(N/A)	17.28	J-1198
2827	J-1531	Lakes	TRUE	1.00	268.55	2.15	269.70	20.00	38.34	20.00	20.00	J-1427	(N/A)	17.28	J-1198
2255	J-1205	Lakes	TRUE	1.00	268.56	2.24	269.80	20.00	27.31	20.00	20.00	J-1427	(N/A)	17.28	J-1198
1788	J-917	Forest	TRUE	1.00	269.67	1.88	270.55	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2293	J-1228	Forest	TRUE	1.00	273.01	1.68	273.69	20.00	20.01	20.00	24.15	J-1197	(N/A)	17.07	J-1198
1835	J-947	Forest	TRUE	1.00	273.32	1.48	273.80	20.00	20.14	20.00	24.34	J-1197	(N/A)	17.26	J-1198
1639	J-822	Lakes	TRUE	1.00	274.57	1.20	274.77	20.00	20.02	20.00	21.22	J-866	(N/A)	17.28	J-1198
1694	J-856	Forest	TRUE	1.00	277.55	1.08	277.63	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1759	J-899	Forest	TRUE	1.00	279.90	1.68	280.58	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2219	J-1184	Lakes	TRUE	1.00	282.15	1.72	282.87	20.00	20.00	20.00	27.20	J-1586	(N/A)	17.28	J-1198
2311	J-1239	Forest	TRUE	1.00	284.14	2.48	285.62	20.00	20.02	20.00	24.36	J-1197			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1738	J-885	Forest	TRUE	1.00	301.49	1.68	302.17	20.00	20.03	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1585	J-787	Forest	TRUE	1.00	307.54	1.28	307.82	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1673	J-842	Lakes	TRUE	1.00	308.52	1.46	308.98	20.00	20.00	20.00	22.11	J-843	(N/A)	17.28	J-1198
1583	J-786	Forest	TRUE	1.00	312.16	1.28	312.43	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1711	J-867	Lakes	TRUE	1.00	313.19	1.81	313.99	20.00	20.79	20.00	20.15	J-868	(N/A)	17.28	J-1198
1928	J-1007	Lakes	TRUE	1.00	313.25	1.37	313.62	20.00	20.02	20.00	23.78	J-1026	(N/A)	17.28	J-1198
1908	J-994	Lakes	TRUE	1.00	314.88	1.20	315.08	20.00	20.55	20.00	20.16	J-868	(N/A)	17.28	J-1198
1986	J-1045	Lakes	TRUE	1.00	316.57	1.37	316.94	20.00	20.03	20.00	20.14	J-868	(N/A)	17.28	J-1198
1582	J-785	Forest	TRUE	1.00	321.79	1.08	321.87	20.00	20.52	20.00	20.29	J-786	(N/A)	17.28	J-1198
1969	J-1034	Lakes	TRUE	1.00	322.72	1.46	323.18	20.00	20.07	20.00	24.79	J-1294	(N/A)	17.28	J-1198
2100	J-1109	Lakes	TRUE	1.00	325.57	1.20	325.77	20.00	20.01	20.00	25.03	J-1110	(N/A)	17.28	J-1198
2319	J-1243	Lakes	TRUE	1.00	326.08	2.41	327.49	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2954	J-1596	Lakes	TRUE	1.00	326.18	1.89	327.07	20.00	20.08	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2949	J-1594	Lakes	TRUE	1.00	326.32	1.81	327.13	20.00	20.05	20.00	23.03	J-1138	(N/A)	17.28	J-1198
2951	J-1595	Lakes	TRUE	1.00	327.20	1.55	327.74	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1579	J-783	Forest	TRUE	1.00	330.44	1.88	331.32	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2309	J-1238	Forest	TRUE	1.00	336.18	2.08	337.26	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1703	J-862	Forest	TRUE	1.00	339.06	1.08	339.14	20.00	20.41	20.00	20.24	J-2703	(N/A)	17.28	J-1198
5106	J-2703	Forest	TRUE	1.00	339.52	1.48	340.00	20.00	20.04	20.00	20.24	J-862	(N/A)	17.28	J-1198
2248	J-1201	Forest	TRUE	1.00	342.49	1.88	343.37	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1654	J-830	Forest	TRUE	1.00	342.54	1.48	343.02	20.00	20.00	20.00	24.34	J-1197	(N/A)	17.26	J-1198
1665	J-837	Forest	TRUE	1.00	343.81	1.28	344.09	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1580	J-784	Forest	TRUE	1.00	343.89	1.68	344.57	20.00	20.01	20.00	20.08	J-783	(N/A)	17.28	J-1198
2314	J-1241	Forest	TRUE	1.00	344.04	2.08	345.12	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2229	J-1190	Forest	TRUE	1.00	349.23	1.88	350.11	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2556	J-1373	Lakes	TRUE	1.00	350.01	1.20	350.21	20.00	20.04	20.00	22.40	J-822	(N/A)	17.28	J-1198
2106	J-1113	Lakes	TRUE	1.00	350.22	1.72	350.94	20.00	21.35	20.00	20.13	J-1007	(N/A)	17.28	J-1198
2957	J-1597	Lakes	TRUE	1.00	350.67	3.80	353.46	20.00	20.00	20.00	23.35	J-822	(N/A)	17.28	J-1198
1602	J-798	Forest	TRUE	1.00	352.06	1.08	352.14	20.00	20.65	20.00	20.29	J-786	(N/A)	17.28	J-1198
2981	J-1607	Lakes	TRUE	1.00	352.16	1.63	352.80	20.00	20.00	20.00	32.13	J-1586	(N/A)	17.28	J-1198
2101	J-1110	Lakes	TRUE	1.00	352.89	1.20	353.09	20.00	20.01	20.00	20.05	J-1109	(N/A)	17.28	J-1198
2220	J-1185	Lakes	TRUE	1.00	353.94	1.89	354.83	20.00	20.00	20.00	22.06	J-1184	(N/A)	17.28	J-1198
2417	J-1294	Lakes	TRUE	1.00	354.02	1.20	354.22	20.00	20.00	20.00	20.10	J-825	(N/A)	17.28	J-1198
1644	J-825	Lakes	TRUE	1.00	354.67	1.20	354.87	20.00	20.00	20.00	20.00	J-1294	(N/A)	17.28	J-1198
1995	J-1051	Fox_Run	TRUE	1.00	356.65	1.08	356.72	20.00	20.64	20.00	20.13	J-828	(N/A)	17.28	J-1198
1649	J-827	Fox_Run	TRUE	1.00	356.67	1.08	356.74	20.00	21.06	20.00	20.13	J-828	(N/A)	17.28	J-1198
2126	J-1126	Forest	TRUE	1.00	357.49	1.48	357.97	20.00	20.06	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2143	J-1137	Forest	TRUE	1.00	358.81	1.68	359.49	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1638	J-821	Lakes	TRUE	1.00	360.66	1.20	360.86	20.00	20.05	20.00	20.05	J-822	(N/A)	17.28	J-1198
2455	J-1316	Lakes	TRUE	1.00	362.25	1.20	362.45	20.00	20.32	20.00	20.15	J-822	(N/A)	17.28	J-1198
2447	J-1312	Forest	TRUE	1.00	366.49	3.29	368.78	20.00	20.02	20.00	20.17	J-1311	(N/A)	17.28	J-1198
2207	J-1177	Forest	TRUE	1.00	366.75	1.88	367.63	20.00	20.01	20.00	23.87	J-1197	(N/A)	16.79	J-1198
2446	J-1311	Forest	TRUE	1.00	366.80	1.88	367.68	20.00	20.06	20.00	20.23	J-1312	(N/A)	17.28	J-1198
2213	J-1180	Lakes	TRUE	1.00	367.03	1.72	367.75	20.00	20.00	20.00	24.01	J-1181	(N/A)	17.28	J-1198
1676	J-844	Lakes	TRUE	1.00	367.32	1.20	367.51	20.00	21.32	20.00	20.13	J-822	(N/A)	17.28	J-1198
1999	J-1054	Lakes	TRUE	1.00	369.20	1.55	369.74	20.00	20.01	20.00	28.19	J-1053	(N/A)	17.28	J-1198
1943	J-1017	Forest	TRUE	1.00	370.16	1.68	370.84	20.00	20.64	20.00	20.14	J-1018	(N/A)	16.84	J-1198
2985	J-1609	Fox_Run	TRUE	1.00	371.85	2.28	373.13	20.00	23.43	20.00	20.13	J-1337	(N/A)	17.28	J-1198
2494	J-1338	Fox_Run	TRUE	1.00	371.88	1.28	372.16	20.00	21.72	20.00	20.12	J-1337	(N/A)	17.28	J-1198
2493	J-1337	Fox_Run	TRUE	1.00	372.53	1.68	373.21	20.00	20.00	20.00	21.40	J-828	(N/A)	17.28	J-1198
1701	J-861	Forest	TRUE	1.00	375.19	1.68	375.87	20.00	20.03	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2334	J-1252	Lakes	TRUE	1.00	375.27	2.24	376.50	20.00	20.00	20.00	22.43	J-1586	(N/A)	17.28	J-1198
2440	J-1308	Lakes	TRUE	1.00	375.43	1.37	375.81	20.00	20.78	20.00	20.14	J-822	(N/A)	17.28	J-1198
2414	J-1292	Lakes	TRUE	1.00	375.49	1.20	375.69	20.00	21.31	20.00	20.13	J-822	(N/A)	17.28	J-1198
2415	J-1293	Lakes	TRUE	1.00	375.50	1.20	375.70	20.00	21.36	20.00	20.13	J-822	(N/A)	17.28	J-1198
2233	J-1192	Forest	TRUE	1.00	377.16	1.88	378.04	20.00	20.06	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2132	J-1130	Forest	TRUE	1.00	381.99	1.88	382.87	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2990	J-1612	Forest	TRUE	1.00	382.05	1.88	382.93	20.00	20.08	20.00	24.16	J-1197	(N/A)	17.08	J-1198
7004	J-3806	Forest	TRUE	1.00	382.53	1.08	382.61	20.00	34.32	20.00	20.00	J-1602	(N/A)	17.28	J-1198
2994	J-1614	Forest	TRUE	1.00	382.54	1.28	382.81	20.00	32.77	20.00	20.00	J-1602	(N/A)	17.28	J-1198
5182	J-2745	Forest	TRUE	1.00	382.74	1.68	383.42	20.00	20.33	20.00	20.26	J-846	(N/A)	17.28	J-1198
1731	J-880	Forest	TRUE	1.00	383.01	1.48	383.49	20.00	22.03	20.00	20.20	J-881	(N/A)	17.28	J-1198
1679	J-846	Forest	TRUE	1.00	383.16	1.08	383.23	20.00	20.12	20.00	20.23	J-2745	(N/A)	17.28	J-1198
2191	J-1167	Forest	TRUE	1.00	384.58	2.88	386.47	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2266	J-1212	Forest	TRUE	1.00	385.49	1.88	386.37	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2095	J-1106	Forest	TRUE	1.00	385.93	1.48	386.41	20.00	20.00	20.00	21.59	J-1105	(N/A)	17.28	J-1198
1689	J-853	Forest	TRUE	1.00	387.92	1.88	388.80	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1692	J-855	Forest	TRUE	1.00	392.07	2.88	393.95	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2094	J-1105	Forest	TRUE	1.00	394.91	2.28	396.19	20.00	20.07	20.00	20.58	J-1106	(N/A)	17.28	J-1198
1706	J-864	Forest	TRUE	1.00	395.54	1.88	396.42	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1667	J-838	Lakes	TRUE	1.00	396.38	1.20	396.58	20.00	20.00	20.00	22.27	J-839	(N/A)	17.28	J-1198
2257	J-1206	Forest	TRUE	1.00	398.89	1.88	399.77	20.00	20.00	20.00	23.40	J-1207	(N/A)	17.11	J-1198
2262	J-1209	Lakes	TRUE	1.00	399.16	2.06	400.22	20.00	20.00	20.00	23.72	J-1210	(N/A)	17.28	J-1198
2703	J-1458	Lakes	TRUE	1.00	405.19	1.72	405.91	20.00	20.00	20.00	28.00	J-1459	(N/A)	17.28	J-1198
2914	J-1577	Lakes	TRUE	1.00	406.19	1.89	407.08	20.00	20.01	20.00	31.51	J-1586	(N/A)	17.28	J-1198
2970	J-1601	Forest	TRUE	1.00	406.38	1.68	407.06	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2172	J-1155	Forest	TRUE	1.00	408.48	1.68	409.16	20.00	20.03	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2236	J-1194	Lakes	TRUE	1.00	408.54	1.98	409.52	20.00	20.00	20.00	27.43	J-1180	(N/A)	17.28	J-1198
1740	J-886	Forest	TRUE	1.00	415.03	1.28	415.31	20.00	21.56	20.00	20.21	J-887	(N/A)	17.28	J-1198
1682	J-848	Forest	TRUE	1.00	415.03	1.88	415.92	20.00	20.03	20.00	24.36	J-1197	(N/A)	17.28	J-

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2860	J-1550	Lakes	TRUE	1.00	451.63	1.55	452.18	20.00	28.16	20.00	20.00	J-1586	(N/A)	17.28	J-1198
2253	J-1204	Forest	TRUE	1.00	455.81	2.28	457.09	20.00	20.02	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2360	J-1265	Lakes	TRUE	1.00	456.17	1.72	456.89	20.00	20.02	20.00	20.00	J-1586	(N/A)	17.28	J-1198
1856	J-961	Forest	TRUE	1.00	459.45	1.88	460.33	20.00	20.07	20.00	20.00	J-960	(N/A)	17.28	J-1198
2704	J-1459	Lakes	TRUE	1.00	459.86	1.72	460.58	20.00	20.00	20.00	20.00	J-1596	(N/A)	17.28	J-1198
2120	J-1122	Forest	TRUE	1.00	461.21	1.68	461.89	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.28	J-1198
1765	J-903	Forest	TRUE	1.00	461.66	1.88	462.54	20.00	20.05	20.00	20.00	J-1197	(N/A)	17.28	J-1198
1657	J-832	Forest	TRUE	1.00	463.99	1.88	464.87	20.00	20.05	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2298	J-1231	Lakes	TRUE	1.00	464.25	1.89	465.15	20.00	20.01	20.00	20.00	J-1427	(N/A)	17.28	J-1198
2161	J-1148	Forest	TRUE	1.00	470.26	2.28	471.54	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2883	J-1562	Forest	TRUE	1.00	470.37	2.08	471.45	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.25	J-1198
2997	J-1615	Forest	TRUE	1.00	470.82	1.48	471.30	20.00	20.08	20.00	20.00	J-1197	(N/A)	17.28	J-1198
1920	J-1002	Forest	TRUE	1.00	474.53	1.48	475.01	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.28	J-1198
1725	J-876	Forest	TRUE	1.00	477.42	1.68	478.10	20.00	21.38	20.00	20.00	J-877	(N/A)	17.28	J-1198
2140	J-1135	Forest	TRUE	1.00	478.02	1.68	478.70	20.00	20.03	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2170	J-1154	Forest	TRUE	1.00	482.35	2.28	483.63	20.00	20.04	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2669	J-1437	Lakes	TRUE	1.00	484.51	1.46	484.97	20.00	20.58	20.00	20.07	J-1595	(N/A)	17.28	J-1198
2433	J-1304	Lakes	TRUE	1.00	485.45	1.20	485.65	20.00	20.00	20.00	20.00	J-905	(N/A)	17.28	J-1198
2670	J-1438	Lakes	TRUE	1.00	487.17	1.89	488.06	20.00	20.02	20.00	25.37	J-1480	(N/A)	17.28	J-1198
1769	J-905	Lakes	TRUE	1.00	487.25	1.20	487.45	20.00	20.37	20.00	20.08	J-1304	(N/A)	17.28	J-1198
2823	J-1529	Forest	TRUE	1.00	494.82	2.08	495.90	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2272	J-1215	Lakes	TRUE	1.00	497.95	1.63	498.58	20.00	20.00	20.00	23.06	J-1209	(N/A)	17.28	J-1198
1652	J-829	Forest	TRUE	1.00	504.78	1.28	505.06	20.00	20.38	20.00	20.14	J-786	(N/A)	17.28	J-1198
4282	J-2275	Lakes	TRUE	1.00	506.12	1.46	506.58	20.00	20.03	20.00	26.70	J-1852	(N/A)	17.28	J-1198
1774	J-908	Forest	TRUE	1.00	507.08	1.28	507.36	20.00	20.00	20.00	20.25	J-909	(N/A)	17.28	J-1198
2238	J-1195	Lakes	TRUE	1.00	509.78	1.55	510.32	20.00	20.01	20.00	26.61	J-1586	(N/A)	17.28	J-1198
2818	J-1526	Forest	TRUE	1.00	518.65	1.68	519.33	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2199	J-1172	Forest	TRUE	1.00	524.59	1.68	525.27	20.00	20.09	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4433	J-2323	Lakes	TRUE	1.00	529.62	2.24	530.86	20.00	20.00	20.00	32.74	J-1575	(N/A)	17.28	J-1198
2854	J-1547	Forest	TRUE	1.00	533.61	2.08	534.69	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2339	J-1254	Lakes	TRUE	1.00	534.02	1.89	534.91	20.00	20.01	20.00	21.61	J-1427	(N/A)	17.28	J-1198
2164	J-1150	Forest	TRUE	1.00	537.37	2.08	538.45	20.00	20.08	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1620	J-810	Forest	TRUE	1.00	540.44	1.08	540.51	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2149	J-1141	Forest	TRUE	1.00	540.60	1.88	541.48	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2173	J-1156	Forest	TRUE	1.00	544.82	1.68	545.50	20.00	20.00	20.00	21.54	J-1190	(N/A)	17.28	J-1198
2431	J-1303	Lakes	TRUE	1.00	546.05	2.58	547.64	20.00	20.01	20.00	20.55	J-1302	(N/A)	17.28	J-1198
2183	J-1162	Forest	TRUE	1.00	547.41	1.68	548.08	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2202	J-1174	Lakes	TRUE	1.00	547.54	1.37	547.91	20.00	26.66	20.00	20.00	J-1007	(N/A)	17.28	J-1198
1633	J-818	Forest	TRUE	1.00	547.92	2.68	549.60	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2430	J-1302	Lakes	TRUE	1.00	548.63	1.55	549.17	20.00	20.16	20.00	20.08	J-1303	(N/A)	17.28	J-1198
2614	J-1406	Forest	TRUE	1.00	554.24	1.88	555.12	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3405	J-1852	Lakes	TRUE	1.00	554.88	1.20	555.08	20.00	20.26	20.00	20.07	J-2275	(N/A)	17.28	J-1198
2682	J-1445	Lakes	TRUE	1.00	554.95	1.20	555.15	20.00	20.64	20.00	20.06	J-2275	(N/A)	17.28	J-1198
2466	J-1323	Forest	TRUE	1.00	555.46	1.28	555.74	20.00	20.00	20.00	21.43	J-1310	(N/A)	17.28	J-1198
5961	J-3191	Forest	TRUE	1.00	555.62	1.68	556.30	20.00	23.02	20.00	20.00	J-941	(N/A)	17.28	J-1198
2635	J-1418	Forest	TRUE	1.00	555.63	1.48	556.11	20.00	22.89	20.00	20.00	J-941	(N/A)	17.28	J-1198
1617	J-808	Forest	TRUE	1.00	556.42	1.68	557.10	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2211	J-1179	Forest	TRUE	1.00	557.11	1.48	557.58	20.00	20.06	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2137	J-1133	Forest	TRUE	1.00	557.50	1.88	558.38	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2181	J-1161	Forest	TRUE	1.00	557.56	1.88	558.44	20.00	20.06	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2913	J-1576	Lakes	TRUE	1.00	559.76	1.29	560.04	20.00	20.06	20.00	21.26	J-2275	(N/A)	17.28	J-1198
2444	J-1310	Forest	TRUE	1.00	561.04	1.08	561.12	20.00	20.36	20.00	20.09	J-1323	(N/A)	17.28	J-1198
3183	J-1724	Forest	TRUE	1.00	561.45	1.08	561.53	20.00	20.06	20.00	20.15	J-1725	(N/A)	17.25	J-1198
1804	J-927	Forest	TRUE	1.00	561.66	2.08	562.75	20.00	21.19	20.00	20.11	J-1725	(N/A)	17.25	J-1198
3184	J-1725	Forest	TRUE	1.00	561.87	1.08	561.95	20.00	20.06	20.00	20.13	J-1724	(N/A)	17.25	J-1198
5955	J-3188	Forest	TRUE	1.00	564.55	1.08	564.63	20.00	20.00	20.00	20.16	J-1323	(N/A)	17.28	J-1198
2443	J-1309	Forest	TRUE	1.00	564.61	1.28	564.89	20.00	20.35	20.00	20.09	J-3188	(N/A)	17.28	J-1198
2680	J-1444	Lakes	TRUE	1.00	566.57	2.06	567.64	20.00	36.52	20.00	20.00	J-1427	(N/A)	17.28	J-1198
2799	J-1515	Lakes	TRUE	1.00	566.61	2.24	567.84	20.00	26.08	20.00	20.00	J-1427	(N/A)	17.28	J-1198
6504	J-3511	Forest	TRUE	1.00	573.53	1.68	574.21	20.00	20.16	20.00	20.09	J-1894	(N/A)	17.28	J-1198
3475	J-1893	Forest	TRUE	1.00	573.62	1.28	573.90	20.00	20.44	20.00	20.07	J-1894	(N/A)	17.28	J-1198
3476	J-1894	Forest	TRUE	1.00	574.05	1.48	574.53	20.00	20.00	20.00	20.20	J-3511	(N/A)	17.28	J-1198
2890	J-1566	Forest	TRUE	1.00	574.30	1.88	575.18	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1761	J-900	Forest	TRUE	1.00	576.60	1.08	576.68	20.00	20.00	20.00	23.55	J-901	(N/A)	17.28	J-1198
2919	J-1579	Forest	TRUE	1.00	577.43	3.49	579.92	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2884	J-1563	Forest	TRUE	1.00	578.54	1.68	579.22	20.00	20.02	20.00	24.32	J-1197	(N/A)	17.24	J-1198
2820	J-1527	Forest	TRUE	1.00	581.09	2.28	582.38	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2769	J-1497	Forest	TRUE	1.00	581.47	1.88	582.35	20.00	20.03	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2580	J-1386	Forest	TRUE	1.00	581.83	1.68	582.51	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2155	J-1144	Forest	TRUE	1.00	584.58	1.68	585.26	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2777	J-1502	Forest	TRUE	1.00	584.82	2.08	585.90	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2980	J-1606	Lakes	TRUE	1.00	585.00	1.55	585.55	20.00	20.04	20.00	23.90	J-1143	(N/A)	17.28	J-1198
3667	J-1999	Forest	TRUE	1.00	585.44	1.28	585.72	20.00	26.25	20.00	20.00	J-1725	(N/A)	17.24	J-1198
5967	J-3194	Forest	TRUE	1.00	585.44	1.28	585.72	20.00	26.42	20.00	20.00	J-1725	(N/A)	17.24	J-1198
6281	J-3381	Forest	TRUE	1.00	586.93	1.88	587.81	20.00	20.16	20.00	20.03	J-2045	(N/A)	16.87	J-1198
1655	J-831	Forest	TRUE	1.00	587.07	1.68	587.75	20.00	20.02	20.00	20.72	J-830	(N/A)	17.24	J-1198
2848	J-1543	Forest	TRUE	1.00	587.11	1.68	587.79	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3747	J-2045	Forest	TRUE	1.00	587.46	1.68	588.14	20.00	20.00	20.00	20.25	J-3381	(N/A)	16.87	J-1198
2350	J-1260	Lakes	TRUE	1.00	592.21	1.72	592.93	20.00	20.00	20.00	23.60	J-1243	(N/A)	17.28	J-1198
4236	J-2280	Forest	TRUE	1.00	595.08	2.28	596.36	20.00	39.77	20.00	20.00	J-1725			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2983	J-1608	Forest	TRUE	1.00	614.64	1.48	615.12	20.00	20.05	20.00	20.94	J-3232	(N/A)	17.24	J-1198
6950	J-3775	Forest	TRUE	1.00	617.28	1.08	617.35	20.00	20.00	20.00	20.63	J-2248	(N/A)	17.28	J-1198
4196	J-2248	Forest	TRUE	1.00	618.37	1.28	618.65	20.00	20.47	20.00	20.06	J-3775	(N/A)	17.28	J-1198
2974	J-1603	Forest	TRUE	1.00	619.54	2.08	620.62	20.00	20.10	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2867	J-1553	Forest	TRUE	1.00	619.84	2.88	621.72	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2153	J-1143	Lakes	TRUE	1.00	623.63	1.46	624.09	20.00	20.04	20.00	21.41	J-1606	(N/A)	17.28	J-1198
4358	J-2298	Forest	TRUE	1.00	627.94	1.68	628.62	20.00	23.02	20.00	20.00	J-3188	(N/A)	17.28	J-1198
6895	J-3743	Forest	TRUE	1.00	627.94	1.68	628.62	20.00	22.80	20.00	20.00	J-3188	(N/A)	17.28	J-1198
4843	J-2551	Forest	TRUE	1.00	629.65	1.08	629.73	20.00	20.01	20.00	20.18	J-2013	(N/A)	17.28	J-1198
1646	J-826	Lakes	TRUE	1.00	629.70	1.20	629.90	20.00	20.02	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3691	J-2013	Forest	TRUE	1.00	629.79	1.68	630.46	20.00	20.17	20.00	20.07	J-2551	(N/A)	17.28	J-1198
2560	J-1375	Lakes	TRUE	1.00	632.97	1.55	633.51	20.00	20.42	20.00	20.02	J-1575	(N/A)	17.28	J-1198
2749	J-1486	Forest	TRUE	1.00	634.08	2.08	635.16	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2851	J-1545	Forest	TRUE	1.00	636.72	1.68	637.40	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3699	J-2018	Forest	TRUE	1.00	639.38	1.08	639.45	20.00	44.02	20.00	20.00	J-2045	(N/A)	16.81	J-1198
2989	J-1611	Forest	TRUE	1.00	639.38	1.08	639.45	20.00	46.83	20.00	20.00	J-2045	(N/A)	16.81	J-1198
3081	J-1662	Forest	TRUE	1.00	639.38	1.28	639.65	20.00	46.88	20.00	20.00	J-2045	(N/A)	16.81	J-1198
6148	J-3301	Forest	TRUE	1.00	639.38	1.48	639.85	20.00	43.80	20.00	20.00	J-2045	(N/A)	16.81	J-1198
1978	J-1040	Forest	TRUE	1.00	639.38	1.48	639.86	20.00	40.21	20.00	20.00	J-2045	(N/A)	16.81	J-1198
3746	J-2044	Forest	TRUE	1.00	639.38	1.68	640.06	20.00	31.29	20.00	20.00	J-2045	(N/A)	16.81	J-1198
1628	J-815	Forest	TRUE	1.00	643.42	1.48	643.89	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5430	J-2889	Forest	TRUE	1.00	645.20	1.48	645.68	20.00	20.22	20.00	20.08	J-1918	(N/A)	17.28	J-1198
3517	J-1918	Forest	TRUE	1.00	645.75	1.88	646.63	20.00	20.00	20.00	20.20	J-2014	(N/A)	17.28	J-1198
2234	J-1193	Forest	TRUE	1.00	645.77	1.48	646.25	20.00	21.23	20.00	20.00	J-1918	(N/A)	17.28	J-1198
1714	J-869	Forest	TRUE	1.00	645.89	1.88	646.77	20.00	20.00	20.00	22.75	J-870	(N/A)	17.28	J-1198
3692	J-2014	Forest	TRUE	1.00	647.48	2.48	648.97	20.00	20.00	20.00	20.64	J-2551	(N/A)	17.28	J-1198
2611	J-1404	Forest	TRUE	1.00	649.20	1.68	649.88	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3884	J-2110	Forest	TRUE	1.00	650.21	2.08	651.29	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2786	J-1508	Forest	TRUE	1.00	652.36	2.08	653.44	20.00	20.06	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2131	J-1129	Forest	TRUE	1.00	653.63	1.68	654.31	20.00	20.00	20.00	22.05	J-1130	(N/A)	17.28	J-1198
5149	J-2726	Forest	TRUE	1.00	653.65	1.88	654.53	20.00	20.01	20.00	20.29	J-2165	(N/A)	17.28	J-1198
2783	J-1506	Forest	TRUE	1.00	653.92	2.08	655.00	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4005	J-2165	Forest	TRUE	1.00	654.16	2.08	655.24	20.00	20.24	20.00	20.05	J-2726	(N/A)	17.28	J-1198
2122	J-1123	Forest	TRUE	1.00	654.67	1.88	655.55	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4170	J-2238	Forest	TRUE	1.00	656.86	1.48	657.34	20.00	36.87	20.00	20.00	J-1608	(N/A)	17.24	J-1198
2964	J-1598	Forest	TRUE	1.00	656.87	1.28	657.14	20.00	31.81	20.00	20.00	J-1608	(N/A)	17.24	J-1198
3311	J-1801	Forest	TRUE	1.00	656.93	1.48	657.41	20.00	31.25	20.00	20.00	J-1608	(N/A)	17.24	J-1198
5753	J-3075	Forest	TRUE	1.00	656.93	1.08	657.01	20.00	30.49	20.00	20.00	J-1608	(N/A)	17.24	J-1198
3467	J-1888	Forest	TRUE	1.00	658.84	1.08	658.91	20.00	20.00	20.00	20.14	J-1608	(N/A)	17.24	J-1198
3466	J-1887	Forest	TRUE	1.00	660.55	1.48	661.02	20.00	20.05	20.00	20.24	J-3323	(N/A)	17.24	J-1198
6186	J-3323	Forest	TRUE	1.00	660.94	1.68	661.62	20.00	20.04	20.00	20.00	J-1887	(N/A)	17.24	J-1198
2690	J-1450	Forest	TRUE	1.00	664.90	2.08	665.98	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2801	J-1516	Forest	TRUE	1.00	667.06	1.88	667.94	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2708	J-1461	Forest	TRUE	1.00	668.19	2.28	669.47	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6702	J-3629	Forest	TRUE	1.00	671.31	1.28	671.58	20.00	20.00	20.00	20.17	J-2267	(N/A)	17.24	J-1198
4259	J-2267	Forest	TRUE	1.00	672.62	1.68	673.30	20.00	20.04	20.00	20.07	J-3629	(N/A)	17.24	J-1198
1737	J-884	Forest	TRUE	1.00	673.17	1.28	673.45	20.00	22.75	20.00	20.00	J-885	(N/A)	17.28	J-1198
2815	J-1524	Forest	TRUE	1.00	673.73	1.48	674.21	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2817	J-1525	Forest	TRUE	1.00	676.57	1.88	677.45	20.00	20.05	20.00	20.26	J-3428	(N/A)	17.28	J-1198
6360	J-3428	Forest	TRUE	1.00	676.97	2.28	678.25	20.00	20.05	20.00	20.00	J-1525	(N/A)	17.28	J-1198
2464	J-1322	Forest	TRUE	1.00	677.73	1.68	678.41	20.00	20.00	20.00	20.35	J-1386	(N/A)	17.28	J-1198
2463	J-1321	Forest	TRUE	1.00	679.45	1.08	679.53	20.00	21.19	20.00	20.06	J-1386	(N/A)	17.28	J-1198
5867	J-3139	Forest	TRUE	1.00	680.40	1.08	680.48	20.00	42.45	20.00	20.00	J-1764	(N/A)	17.28	J-1198
4374	J-2303	Forest	TRUE	1.00	680.40	1.08	680.48	20.00	41.38	20.00	20.00	J-1764	(N/A)	17.28	J-1198
2584	J-1388	Forest	TRUE	1.00	682.53	2.28	683.81	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1614	J-806	Forest	TRUE	1.00	685.75	1.68	686.43	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3885	J-2111	Forest	TRUE	1.00	688.78	1.48	689.26	20.00	23.24	20.00	20.00	J-2110	(N/A)	17.28	J-1198
6939	J-3769	Forest	TRUE	1.00	688.78	1.88	689.66	20.00	22.53	20.00	20.00	J-2110	(N/A)	17.28	J-1198
2178	J-1159	Forest	TRUE	1.00	693.51	1.68	694.19	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5553	J-2958	Forest	TRUE	1.00	694.68	1.08	694.76	20.00	20.00	20.00	20.12	J-1727	(N/A)	17.28	J-1198
2929	J-1585	Forest	TRUE	1.00	695.38	2.48	696.87	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3189	J-1728	Forest	TRUE	1.00	696.14	1.08	696.21	20.00	20.00	20.00	20.03	J-2958	(N/A)	17.28	J-1198
3188	J-1727	Forest	TRUE	1.00	696.18	1.48	696.66	20.00	20.03	20.00	20.03	J-2958	(N/A)	17.28	J-1198
2878	J-1559	Forest	TRUE	1.00	697.54	1.48	698.02	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3579	J-1952	Forest	TRUE	1.00	699.13	1.08	699.21	20.00	20.21	20.00	20.16	J-1211	(N/A)	17.28	J-1198
5695	J-3041	Forest	TRUE	1.00	699.16	1.08	699.24	20.00	20.39	20.00	20.16	J-1211	(N/A)	17.28	J-1198
2115	J-1119	Forest	TRUE	1.00	699.67	1.48	700.15	20.00	23.04	20.00	20.03	J-1211	(N/A)	17.28	J-1198
1793	J-920	Forest	TRUE	1.00	699.78	1.48	700.26	20.00	20.00	20.00	23.39	J-921	(N/A)	17.28	J-1198
2265	J-1211	Forest	TRUE	1.00	699.81	1.08	699.88	20.00	20.00	20.00	21.64	J-1952	(N/A)	17.28	J-1198
1664	J-836	Forest	TRUE	1.00	701.13	1.88	702.01	20.00	20.00	20.00	21.22	J-837	(N/A)	17.28	J-1198
2701	J-1457	Forest	TRUE	1.00	705.64	1.68	706.32	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4357	J-2297	Forest	TRUE	1.00	707.22	1.68	707.89	20.00	27.60	20.00	20.00	J-3188	(N/A)	17.28	J-1198
6616	J-3578	Forest	TRUE	1.00	707.22	1.28	707.49	20.00	27.63	20.00	20.00	J-3188	(N/A)	17.28	J-1198
2605	J-1401	Forest	TRUE	1.00	707.34	1.08	707.42	20.00	20.04	20.00	20.14	J-2544	(N/A)	17.28	J-1198
4831	J-2544	Forest	TRUE	1.00	707.43	1.08	707.50	20.00	20.04	20.00	20.03	J-1401	(N/A)	17.28	J-1198
2166	J-1151	Forest	TRUE	1.00	708.49	1.08	708.56	20.00	23.68	20.00	20.00	J-1152	(N/A)	16.72	J-1198
3162	J-1712	Forest	TRUE	1.00	711.82	1.48	712.30	20.00	23.90	20.00	20.00	J-1152	(N/A)	16.71	J-1198
6709	J-3633	Forest	TRUE	1.00	711.82	1.88	712.70	20.00	24.18	20.00	20.00	J-1152	(N/A)	16.71	J-1198
2760	J-1492	Lakes	TRUE	1.00	719.46	1.37	719.84	20.00	27.00	20.00	20.00	J-1586	(N/A)	17.28	J-1198
3230	J-1753	Lakes	TRUE	1.00	719.46	1.20	719.66	20.00	26.75	20.00	20.0				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2109	J-1115	Forest	TRUE	1.00	736.88	2.48	738.36	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2824	J-1530	Forest	TRUE	1.00	745.77	2.68	747.45	20.00	20.01	20.00	20.09	J-3138	(N/A)	17.28	J-1198
5116	J-2708	Forest	TRUE	1.00	746.32	1.48	746.80	20.00	20.00	20.00	20.04	J-2166	(N/A)	17.28	J-1198
3091	J-1668	Forest	TRUE	1.00	746.40	1.08	746.48	20.00	20.21	20.00	20.11	J-2384	(N/A)	17.28	J-1198
6524	J-3523	Forest	TRUE	1.00	746.59	2.28	747.87	20.00	28.55	20.00	20.00	J-941	(N/A)	17.28	J-1198
3833	J-2085	Forest	TRUE	1.00	746.59	1.48	747.07	20.00	28.83	20.00	20.00	J-941	(N/A)	17.28	J-1198
3834	J-2086	Forest	TRUE	1.00	746.59	1.28	746.87	20.00	32.30	20.00	20.00	J-941	(N/A)	17.28	J-1198
4007	J-2166	Forest	TRUE	1.00	746.60	1.28	746.87	20.00	20.00	20.00	20.08	J-2708	(N/A)	17.28	J-1198
4008	J-2167	Forest	TRUE	1.00	746.61	1.88	747.49	20.00	24.66	20.00	20.00	J-2166	(N/A)	17.28	J-1198
4546	J-2384	Forest	TRUE	1.00	746.66	1.88	747.54	20.00	20.00	20.00	20.07	J-1667	(N/A)	17.28	J-1198
3090	J-1667	Forest	TRUE	1.00	747.11	1.48	747.58	20.00	20.00	20.00	20.00	J-2384	(N/A)	17.28	J-1198
1755	J-896	Forest	TRUE	1.00	751.90	1.88	752.78	20.00	20.00	20.00	22.73	J-897	(N/A)	17.28	J-1198
2832	J-1534	Forest	TRUE	1.00	754.55	2.28	755.83	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2906	J-1574	Forest	TRUE	1.00	754.57	2.08	755.65	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8500	J-4203	Forest	TRUE	1.00	756.95	1.48	757.43	20.00	21.20	20.00	20.07	J-2091	(N/A)	17.28	J-1198
3524	J-1921	Forest	TRUE	1.00	757.25	1.48	757.73	20.00	26.35	20.00	20.00	J-2295	(N/A)	17.28	J-1198
3845	J-2091	Forest	TRUE	1.00	757.39	2.08	758.47	20.00	20.00	20.00	21.13	J-4203	(N/A)	17.28	J-1198
3525	J-1922	Forest	TRUE	1.00	759.39	1.68	760.07	20.00	25.23	20.00	20.00	J-2295	(N/A)	17.28	J-1198
4823	J-2539	Forest	TRUE	1.00	759.39	1.28	759.67	20.00	25.02	20.00	20.00	J-2295	(N/A)	17.28	J-1198
3202	J-1736	Forest	TRUE	1.00	763.72	1.08	763.80	20.00	20.02	20.00	20.41	J-2591	(N/A)	17.28	J-1198
4913	J-2591	Forest	TRUE	1.00	766.43	1.48	766.90	20.00	20.10	20.00	20.05	J-1736	(N/A)	17.28	J-1198
3201	J-1735	Forest	TRUE	1.00	766.67	1.48	767.15	20.00	20.32	20.00	20.03	J-1736	(N/A)	17.28	J-1198
2612	J-1405	Forest	TRUE	1.00	766.77	1.68	767.45	20.00	20.00	20.00	20.57	J-3095	(N/A)	17.28	J-1198
1608	J-802	Forest	TRUE	1.00	767.49	1.68	768.17	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4536	J-2378	Forest	TRUE	1.00	769.28	1.28	769.55	20.00	20.00	20.00	20.03	J-1637	(N/A)	17.28	J-1198
3042	J-1637	Forest	TRUE	1.00	769.71	1.08	769.79	20.00	20.00	20.00	20.04	J-2378	(N/A)	17.28	J-1198
3041	J-1636	Forest	TRUE	1.00	769.72	1.08	769.80	20.00	20.00	20.00	20.00	J-1637	(N/A)	17.28	J-1198
5789	J-3095	Forest	TRUE	1.00	769.76	1.48	770.24	20.00	20.00	20.00	20.25	J-2104	(N/A)	17.28	J-1198
3873	J-2104	Forest	TRUE	1.00	770.26	1.68	770.94	20.00	20.18	20.00	20.10	J-3095	(N/A)	17.28	J-1198
6367	J-3432	Forest	TRUE	1.00	770.45	1.08	770.53	20.00	20.05	20.00	20.25	J-2147	(N/A)	17.28	J-1198
7180	J-3900	Forest	TRUE	1.00	771.69	1.08	771.77	20.00	20.26	20.00	20.09	J-3432	(N/A)	17.28	J-1198
6368	J-3433	Forest	TRUE	1.00	771.73	1.28	772.01	20.00	20.31	20.00	20.08	J-3432	(N/A)	17.28	J-1198
3964	J-2147	Forest	TRUE	1.00	772.20	1.88	773.08	20.00	20.02	20.00	20.35	J-2259	(N/A)	17.28	J-1198
2875	J-1557	Forest	TRUE	1.00	773.64	3.29	775.93	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1966	J-1032	Forest	TRUE	1.00	773.78	1.88	774.66	20.00	20.00	20.00	24.28	J-1197	(N/A)	17.20	J-1198
2510	J-1346	Forest	TRUE	1.00	774.69	2.28	775.97	20.00	20.57	20.00	20.05	J-2259	(N/A)	17.28	J-1198
4230	J-2259	Forest	TRUE	1.00	774.83	2.68	776.51	20.00	20.02	20.00	20.72	J-3425	(N/A)	17.28	J-1198
2692	J-1451	Forest	TRUE	1.00	774.84	1.88	775.72	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6548	J-3537	Forest	TRUE	1.00	775.06	2.08	776.15	20.00	25.07	20.00	20.00	J-2259	(N/A)	17.28	J-1198
6547	J-3536	Forest	TRUE	1.00	775.07	1.48	775.55	20.00	24.47	20.00	20.00	J-2259	(N/A)	17.28	J-1198
4071	J-2195	Forest	TRUE	1.00	775.17	1.28	775.45	20.00	34.12	20.00	20.00	J-2295	(N/A)	17.28	J-1198
5347	J-2841	Forest	TRUE	1.00	775.17	1.28	775.45	20.00	33.87	20.00	20.00	J-2295	(N/A)	17.28	J-1198
3502	J-1909	Forest	TRUE	1.00	775.30	1.08	775.38	20.00	24.66	20.00	20.00	J-2259	(N/A)	17.28	J-1198
3501	J-1908	Forest	TRUE	1.00	775.30	1.88	776.18	20.00	24.02	20.00	20.00	J-2259	(N/A)	17.28	J-1198
4116	J-2214	Forest	TRUE	1.00	775.51	2.08	776.59	20.00	35.41	20.00	20.01	J-2259	(N/A)	17.28	J-1198
6155	J-3305	Forest	TRUE	1.00	775.52	1.68	776.19	20.00	34.63	20.00	20.01	J-2259	(N/A)	17.28	J-1198
3576	J-1950	Forest	TRUE	1.00	776.31	2.68	778.00	20.00	24.91	20.00	20.00	J-2259	(N/A)	17.28	J-1198
6355	J-3425	Forest	TRUE	1.00	776.72	1.28	777.00	20.00	20.05	20.00	20.44	J-2259	(N/A)	17.28	J-1198
3577	J-1951	Forest	TRUE	1.00	777.41	1.48	777.89	20.00	21.78	20.00	20.00	J-2259	(N/A)	17.28	J-1198
6396	J-3449	Forest	TRUE	1.00	777.41	2.08	778.49	20.00	21.25	20.00	20.00	J-2259	(N/A)	17.28	J-1198
6356	J-3426	Forest	TRUE	1.00	778.20	1.68	778.88	20.00	20.29	20.00	20.07	J-3425	(N/A)	17.28	J-1198
3888	J-2112	Forest	TRUE	1.00	778.96	1.88	779.85	20.00	20.00	20.00	22.13	J-1740	(N/A)	17.28	J-1198
2586	J-1389	Forest	TRUE	1.00	779.41	2.28	780.70	20.00	20.01	20.00	20.95	J-1496	(N/A)	17.28	J-1198
2672	J-1439	Forest	TRUE	1.00	779.44	1.88	780.32	20.00	24.94	20.00	20.00	J-1389	(N/A)	17.28	J-1198
4563	J-2394	Forest	TRUE	1.00	779.44	1.88	780.32	20.00	24.49	20.00	20.00	J-1389	(N/A)	17.28	J-1198
4064	J-2191	Forest	TRUE	1.00	779.56	2.28	780.84	20.00	30.46	20.00	20.00	J-2110	(N/A)	17.28	J-1198
2119	J-1121	Forest	TRUE	1.00	779.87	1.88	780.75	20.00	21.49	20.00	20.00	J-1122	(N/A)	17.28	J-1198
3237	J-1757	Forest	TRUE	1.00	781.13	1.08	781.21	20.00	22.15	20.00	20.00	J-2259	(N/A)	17.28	J-1198
3238	J-1758	Forest	TRUE	1.00	781.13	1.28	781.41	20.00	22.17	20.00	20.00	J-2259	(N/A)	17.28	J-1198
6415	J-3460	Forest	TRUE	1.00	781.13	1.08	781.21	20.00	21.72	20.00	20.00	J-2259	(N/A)	17.28	J-1198
3774	J-2057	Forest	TRUE	1.00	781.13	2.68	782.82	20.00	21.37	20.00	20.00	J-2259	(N/A)	17.28	J-1198
2642	J-1422	Forest	TRUE	1.00	781.90	1.88	782.78	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5408	J-2877	Forest	TRUE	1.00	781.98	1.68	782.66	20.00	20.00	20.00	20.05	J-2263	(N/A)	17.28	J-1198
4085	J-2202	Forest	TRUE	1.00	782.38	2.08	783.46	20.00	23.27	20.00	20.00	J-3425	(N/A)	17.28	J-1198
4246	J-2263	Forest	TRUE	1.00	782.41	2.08	783.49	20.00	20.00	20.00	20.10	J-2877	(N/A)	17.28	J-1198
6782	J-3676	Forest	TRUE	1.00	783.71	1.08	783.78	20.00	20.01	20.00	20.07	J-610	(N/A)	17.28	J-1198
3305	J-1798	Forest	TRUE	1.00	784.17	1.08	784.25	20.00	39.23	20.00	20.01	J-2259	(N/A)	17.28	J-1198
2148	J-1140	Forest	TRUE	1.00	784.18	1.08	784.26	20.00	38.20	20.00	20.01	J-2259	(N/A)	17.28	J-1198
3641	J-1985	Forest	TRUE	1.00	784.29	1.48	784.76	20.00	20.17	20.00	20.13	J-1496	(N/A)	17.28	J-1198
1159	J-610	Forest	TRUE	1.00	784.32	1.48	784.79	20.00	20.00	20.00	20.20	J-3676	(N/A)	17.28	J-1198
756	J-432	Forest	TRUE	1.00	784.33	1.48	784.81	20.00	34.64	20.00	20.00	J-610	(N/A)	17.28	J-1198
520	J-294	Forest	TRUE	1.00	784.33	1.48	784.81	20.00	33.26	20.00	20.00	J-610	(N/A)	17.28	J-1198
521	J-295	Forest	TRUE	1.00	784.33	1.48	784.81	20.00	33.21	20.00	20.00	J-610	(N/A)	17.28	J-1198
5101	J-2700	Forest	TRUE	1.00	784.33	1.08	784.41	20.00	33.13	20.00	20.00	J-610	(N/A)	17.28	J-1198
2834	J-1535	Forest	TRUE	1.00	784.35	1.88	785.23	20.00	23.17	20.00	20.00	J-610	(N/A)	17.28	J-1198
6844	J-3713	Forest	TRUE	1.00	784.35	2.28	785.63	20.00	22.84	20.00	20.00	J-610	(N/A)	17.28	J-1198
6218	J-3343	Forest	TRUE	1.00	784.43	1.48	784.90	20.00	20.51	20.00	20.10	J-1496	(N/A)	17.28	J-1198
3403	J-1851	Forest	TRUE	1.00	784.54	1.08	784.62	20.00	41.23	20.00	20.02	J-2259	(N/A)	17.28	J-1198
5895	J-3154	Forest	TRUE	1.00	784.55	1.48	785.03	20.00	40.98	20.00	20.01	J-2259	(N/A)	17.28	J-1198
2767	J-1496	Forest	TRUE	1.00	784.99	2.08	786.07	20.00	20.01	20.00	22.39	J-28			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5818	J-3112	Forest	TRUE	1.00	793.62	1.28	793.90	20.00	34.17	20.00	20.01	J-3425	(N/A)	17.28	J-1198
868	J-488	Forest	TRUE	1.00	793.63	1.68	794.31	20.00	33.34	20.00	20.01	J-3425	(N/A)	17.28	J-1198
6097	J-3271	Forest	TRUE	1.00	794.24	1.28	794.51	20.00	20.59	20.00	20.10	J-2091	(N/A)	17.28	J-1198
2151	J-1142	Forest	TRUE	1.00	794.28	1.28	794.56	20.00	20.00	20.00	20.91	J-925	(N/A)	17.28	J-1198
3846	J-2092	Forest	TRUE	1.00	794.50	2.08	795.58	20.00	21.50	20.00	20.06	J-2091	(N/A)	17.28	J-1198
2712	J-1464	Forest	TRUE	1.00	795.44	1.68	796.12	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3569	J-1946	Forest	TRUE	1.00	796.40	1.48	796.87	20.00	30.66	20.00	20.00	J-2259	(N/A)	17.28	J-1198
6450	J-3480	Forest	TRUE	1.00	796.40	1.48	796.88	20.00	30.39	20.00	20.00	J-2259	(N/A)	17.28	J-1198
3343	J-1819	Forest	TRUE	1.00	796.87	1.48	797.34	20.00	20.20	20.00	20.11	J-1740	(N/A)	17.28	J-1198
4753	J-2501	Forest	TRUE	1.00	796.87	1.28	797.15	20.00	20.22	20.00	20.11	J-1740	(N/A)	17.28	J-1198
4794	J-2524	Forest	TRUE	1.00	797.02	1.48	797.50	20.00	20.00	20.00	20.06	J-2145	(N/A)	17.28	J-1198
1111	J-594	Forest	TRUE	1.00	797.36	1.08	797.44	20.00	29.37	20.00	20.00	J-3425	(N/A)	17.28	J-1198
3359	J-1828	Forest	TRUE	1.00	797.78	1.48	798.26	20.00	23.08	20.00	20.00	J-2295	(N/A)	17.28	J-1198
6767	J-3667	Forest	TRUE	1.00	797.78	1.48	798.26	20.00	22.12	20.00	20.00	J-2295	(N/A)	17.28	J-1198
3959	J-2145	Forest	TRUE	1.00	798.20	1.68	798.88	20.00	20.00	20.00	20.07	J-2524	(N/A)	17.28	J-1198
3824	J-2080	Forest	TRUE	1.00	798.41	2.28	799.69	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3360	J-1829	Forest	TRUE	1.00	799.83	1.68	800.51	20.00	23.57	20.00	20.00	J-2295	(N/A)	17.28	J-1198
2609	J-1403	Forest	TRUE	1.00	800.76	2.68	802.45	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4443	J-2326	Stewartsville	TRUE	1.00	800.93	1.69	801.62	20.00	20.00	20.00	50.50	J-676	(N/A)	17.28	J-1198
1605	J-800	Forest	TRUE	1.00	801.79	1.68	802.47	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6859	J-3721	Forest	TRUE	1.00	803.46	1.08	803.54	20.00	20.01	20.00	21.12	J-2302	(N/A)	17.28	J-1198
2746	J-1484	Forest	TRUE	1.00	804.45	2.08	805.53	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4370	J-2302	Forest	TRUE	1.00	805.62	1.08	805.70	20.00	20.86	20.00	20.05	J-3721	(N/A)	17.28	J-1198
1594	J-793	Forest	TRUE	1.00	810.58	1.88	811.46	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
817	J-462	Forest	TRUE	1.00	812.14	1.08	812.22	20.00	33.76	20.00	20.01	J-3425	(N/A)	17.28	J-1198
3767	J-2053	Forest	TRUE	1.00	812.14	1.48	812.62	20.00	35.12	20.00	20.01	J-3425	(N/A)	17.28	J-1198
6295	J-3389	Forest	TRUE	1.00	812.14	1.88	813.02	20.00	35.04	20.00	20.01	J-3425	(N/A)	17.28	J-1198
2204	J-1175	Forest	TRUE	1.00	812.21	1.88	813.09	20.00	26.39	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6017	J-3222	Forest	TRUE	1.00	812.21	1.08	812.29	20.00	25.54	20.00	20.00	J-3425	(N/A)	17.28	J-1198
3520	J-1919	Forest	TRUE	1.00	812.21	1.08	812.29	20.00	25.52	20.00	20.00	J-3425	(N/A)	17.28	J-1198
3664	J-1997	Forest	TRUE	1.00	812.22	2.08	813.30	20.00	24.29	20.00	20.00	J-3425	(N/A)	17.28	J-1198
4407	J-2315	Forest	TRUE	1.00	814.05	1.68	814.73	20.00	36.27	20.00	20.00	J-1764	(N/A)	17.28	J-1198
6660	J-3604	Forest	TRUE	1.00	814.06	1.28	814.33	20.00	35.16	20.00	20.00	J-1764	(N/A)	17.28	J-1198
818	J-463	Forest	TRUE	1.00	814.20	1.48	814.68	20.00	41.29	20.00	20.02	J-3425	(N/A)	17.28	J-1198
6448	J-3479	Forest	TRUE	1.00	814.21	2.28	815.49	20.00	41.18	20.00	20.02	J-3425	(N/A)	17.28	J-1198
3011	J-1621	Lakes	TRUE	1.00	815.62	2.06	816.68	20.00	25.72	20.00	20.00	J-1427	(N/A)	17.28	J-1198
2303	J-1234	Lakes	TRUE	1.00	819.20	2.15	820.35	20.00	20.00	20.00	29.73	J-3108	(N/A)	17.28	J-1198
1173	J-616	Forest	TRUE	1.00	822.40	1.08	822.48	20.00	51.64	20.00	20.04	J-3425	(N/A)	17.28	J-1198
6991	J-3798	Forest	TRUE	1.00	822.42	2.68	824.10	20.00	51.81	20.00	20.04	J-3425	(N/A)	17.28	J-1198
2639	J-1420	Forest	TRUE	1.00	824.30	1.88	825.18	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2730	J-1474	Forest	TRUE	1.00	825.38	1.88	826.27	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2725	J-1471	Forest	TRUE	1.00	826.36	1.88	827.24	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2790	J-1510	Forest	TRUE	1.00	827.54	2.08	828.62	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
426	J-236	Forest	TRUE	1.00	828.35	1.08	828.43	20.00	51.65	20.00	20.04	J-3425	(N/A)	17.28	J-1198
4902	J-2585	Forest	TRUE	1.00	828.36	1.48	828.83	20.00	51.54	20.00	20.04	J-3425	(N/A)	17.28	J-1198
582	J-333	Forest	TRUE	1.00	828.56	1.48	829.04	20.00	52.30	20.00	20.04	J-3425	(N/A)	17.28	J-1198
427	J-237	Forest	TRUE	1.00	828.57	1.48	829.05	20.00	51.84	20.00	20.04	J-3425	(N/A)	17.28	J-1198
4365	J-2301	Forest	TRUE	1.00	830.37	1.48	830.85	20.00	20.92	20.00	20.05	J-3188	(N/A)	17.28	J-1198
6711	J-3634	Forest	TRUE	1.00	830.80	1.08	830.88	20.00	21.02	20.00	20.00	J-3188	(N/A)	17.28	J-1198
2858	J-1549	Forest	TRUE	1.00	833.88	1.08	833.95	20.00	20.00	20.00	20.07	J-1732	(N/A)	17.28	J-1198
6585	J-3560	Forest	TRUE	1.00	833.99	1.28	834.27	20.00	20.00	20.00	20.06	J-1732	(N/A)	17.28	J-1198
3196	J-1732	Forest	TRUE	1.00	834.41	1.28	834.68	20.00	20.00	20.00	20.20	J-1549	(N/A)	17.28	J-1198
2840	J-1539	Forest	TRUE	1.00	840.16	1.88	841.04	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2788	J-1509	Forest	TRUE	1.00	840.56	2.28	841.84	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5931	J-3174	Forest	TRUE	1.00	841.01	1.28	841.29	20.00	20.00	20.00	20.30	J-2041	(N/A)	17.28	J-1198
2904	J-1573	Forest	TRUE	1.00	842.21	2.48	843.69	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3939	J-2136	Forest	TRUE	1.00	843.14	2.08	844.22	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6258	J-3368	Forest	TRUE	1.00	843.66	1.08	843.74	20.00	31.69	20.00	20.00	J-1525	(N/A)	17.28	J-1198
3822	J-2079	Forest	TRUE	1.00	843.66	3.09	845.75	20.00	31.91	20.00	20.00	J-1525	(N/A)	17.28	J-1198
2574	J-1382	Forest	TRUE	1.00	844.19	2.68	845.88	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2776	J-1501	Forest	TRUE	1.00	844.98	2.08	846.06	20.00	20.47	20.00	20.03	J-1532	(N/A)	17.28	J-1198
3740	J-2041	Forest	TRUE	1.00	845.01	1.88	845.90	20.00	20.11	20.00	20.03	J-3174	(N/A)	17.28	J-1198
2343	J-1256	Forest	TRUE	1.00	848.62	1.68	849.30	20.00	28.01	20.00	20.00	J-1257	(N/A)	17.28	J-1198
5180	J-2744	Forest	TRUE	1.00	848.62	1.48	849.10	20.00	27.85	20.00	20.00	J-1257	(N/A)	17.28	J-1198
3137	J-1697	Forest	TRUE	1.00	848.77	1.28	849.05	20.00	28.23	20.00	20.00	J-941	(N/A)	17.28	J-1198
3136	J-1696	Forest	TRUE	1.00	848.77	1.28	849.05	20.00	28.48	20.00	20.00	J-941	(N/A)	17.28	J-1198
2719	J-1467	Forest	TRUE	1.00	853.88	2.48	855.36	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5663	J-3023	Forest	TRUE	1.00	854.14	2.08	855.22	20.00	20.00	20.00	20.99	J-2067	(N/A)	17.28	J-1198
3795	J-2067	Forest	TRUE	1.00	855.51	1.88	856.39	20.00	20.84	20.00	20.05	J-3023	(N/A)	17.28	J-1198
1718	J-872	Forest	TRUE	1.00	855.94	1.88	856.82	20.00	21.65	20.00	20.00	J-3023	(N/A)	17.28	J-1198
5018	J-2652	Forest	TRUE	1.00	858.10	1.08	858.18	20.00	59.23	20.00	20.05	J-3425	(N/A)	17.28	J-1198
5019	J-2653	Forest	TRUE	1.00	858.11	2.08	859.19	20.00	59.58	20.00	20.05	J-3425	(N/A)	17.28	J-1198
2329	J-1249	Forest	TRUE	1.00	859.52	1.28	859.80	20.00	20.00	20.00	23.30	J-1248	(N/A)	17.28	J-1198
3797	J-2068	Forest	TRUE	1.00	860.15	1.28	860.43	20.00	27.97	20.00	20.01	J-2145	(N/A)	17.28	J-1198
5132	J-2717	Forest	TRUE	1.00	860.17	1.48	860.65	20.00	27.62	20.00	20.01	J-2145	(N/A)	17.28	J-1198
5707	J-3048	Forest	TRUE	1.00	864.26	1.48	864.74	20.00	20.00	20.00	20.13	J-804	(N/A)	17.18	J-1198
2665	J-1435	Forest	TRUE	1.00	864.36	2.08	865.44	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1611	J-804	Forest	TRUE	1.00	864.90	1.08	864.98	20.00	20.00	20.00	20.08	J-3048	(N/A)	17.18	J-1198
7062	J-3838	Forest	TRUE	1.00	865.29	1.08	865.36	20.00	20.01	20.00	20.95	J-2060	(N/A)	17.28	J-1198
4188	J-2245	Forest	TRUE	1.00	867.73	2.48	869.21	20.00	20.01	20.00	24.36	J-119			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3798	J-2069	Forest	TRUE	1.00	894.00	2.08	895.08	20.00	31.74	20.00	20.00	J-2145	(N/A)	17.28	J-1198
1973	J-1037	Forest	TRUE	1.00	894.48	1.88	895.36	20.00	20.01	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2516	J-1349	Forest	TRUE	1.00	896.71	1.88	897.60	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.28	J-1198
3831	J-2084	Forest	TRUE	1.00	897.00	1.88	897.88	20.00	20.00	20.00	20.00	J-3172	(N/A)	17.28	J-1198
2678	J-1443	Forest	TRUE	1.00	897.67	2.28	898.95	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.28	J-1198
2880	J-1560	Forest	TRUE	1.00	898.76	2.48	900.24	20.00	20.00	20.00	20.00	J-1197	(N/A)	17.18	J-1198
1917	J-1000	Forest	TRUE	1.00	899.52	1.88	900.40	20.00	23.13	20.00	20.00	J-2878	(N/A)	17.28	J-1198
5927	J-3172	Forest	TRUE	1.00	903.74	1.28	904.02	20.00	20.00	20.00	20.46	J-1685	(N/A)	17.28	J-1198
2782	J-1505	Forest	TRUE	1.00	904.36	1.68	905.04	20.00	20.27	20.00	20.14	J-3172	(N/A)	17.28	J-1198
3117	J-1685	Forest	TRUE	1.00	904.38	2.08	905.46	20.00	20.35	20.00	20.14	J-3172	(N/A)	17.28	J-1198
3023	J-1625	Forest	TRUE	1.00	905.94	4.89	909.83	20.00	21.49	20.00	20.00	J-1626	(N/A)	17.28	J-1198
3825	J-2081	Forest	TRUE	1.00	907.62	2.08	908.70	20.00	22.62	20.00	20.00	J-2080	(N/A)	17.28	J-1198
5636	J-3006	Forest	TRUE	1.00	907.63	2.08	908.71	20.00	22.35	20.00	20.00	J-2080	(N/A)	17.28	J-1198
3330	J-1812	Forest	TRUE	1.00	913.32	1.08	913.40	20.00	30.06	20.00	20.00	J-610	(N/A)	17.28	J-1198
2838	J-1538	Forest	TRUE	1.00	913.43	2.48	914.92	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2804	J-1518	Forest	TRUE	1.00	914.66	1.08	914.74	20.00	37.23	20.00	20.00	J-1519	(N/A)	17.28	J-1198
5130	J-2716	Forest	TRUE	1.00	914.66	1.28	914.94	20.00	36.69	20.00	20.00	J-1519	(N/A)	17.28	J-1198
2697	J-1454	Forest	TRUE	1.00	915.28	1.88	916.16	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6377	J-3438	Forest	TRUE	1.00	916.18	1.28	916.46	20.00	20.00	20.00	20.44	J-282	(N/A)	17.28	J-1198
5745	J-3070	Forest	TRUE	1.00	917.70	1.08	917.78	20.00	21.01	20.00	20.00	J-1626	(N/A)	17.28	J-1198
5746	J-3071	Forest	TRUE	1.00	917.71	1.08	917.78	20.00	20.90	20.00	20.00	J-1626	(N/A)	17.28	J-1198
2700	J-1456	Forest	TRUE	1.00	919.16	1.48	919.64	20.00	30.48	20.00	20.00	J-1525	(N/A)	17.28	J-1198
502	J-282	Forest	TRUE	1.00	919.28	1.08	919.36	20.00	20.18	20.00	20.02	J-3438	(N/A)	17.28	J-1198
584	J-334	Forest	TRUE	1.00	919.37	1.08	919.44	20.00	20.26	20.00	20.02	J-3438	(N/A)	17.28	J-1198
503	J-283	Forest	TRUE	1.00	919.57	2.08	920.65	20.00	20.77	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3329	J-1811	Forest	TRUE	1.00	920.21	1.28	920.49	20.00	30.53	20.00	20.00	J-610	(N/A)	17.28	J-1198
6006	J-3216	Forest	TRUE	1.00	920.21	1.28	920.49	20.00	30.28	20.00	20.00	J-610	(N/A)	17.28	J-1198
6029	J-3229	Forest	TRUE	1.00	921.15	1.28	921.43	20.00	20.02	20.00	21.04	J-2273	(N/A)	17.28	J-1198
2684	J-1446	Forest	TRUE	1.00	921.65	1.48	922.13	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5785	J-3093	Forest	TRUE	1.00	922.05	1.68	922.73	20.00	20.10	20.00	20.05	J-2296	(N/A)	17.28	J-1198
3922	J-2128	Forest	TRUE	1.00	922.37	1.88	923.25	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4354	J-2296	Forest	TRUE	1.00	922.45	2.08	923.53	20.00	20.00	20.00	20.28	J-3093	(N/A)	17.28	J-1198
288	J-148	Forest	TRUE	1.00	923.96	1.68	924.64	20.00	22.10	20.00	20.00	J-3438	(N/A)	17.28	J-1198
5390	J-2867	Forest	TRUE	1.00	924.04	1.28	924.32	20.00	22.37	20.00	20.00	J-3438	(N/A)	17.28	J-1198
287	J-147	Forest	TRUE	1.00	924.04	1.08	924.12	20.00	22.30	20.00	20.00	J-3438	(N/A)	17.28	J-1198
330	J-174	Forest	TRUE	1.00	924.17	1.68	924.85	20.00	22.62	20.00	20.00	J-3438	(N/A)	17.28	J-1198
4968	J-2624	Forest	TRUE	1.00	924.20	2.48	925.68	20.00	28.67	20.00	20.00	J-941	(N/A)	17.28	J-1198
4967	J-2623	Forest	TRUE	1.00	924.20	1.48	924.67	20.00	28.50	20.00	20.00	J-941	(N/A)	17.28	J-1198
4276	J-2273	Forest	TRUE	1.00	924.52	2.68	926.20	20.00	20.76	20.00	20.00	J-3229	(N/A)	17.28	J-1198
1989	J-1047	Forest	TRUE	1.00	925.83	1.08	925.91	20.00	29.79	20.00	20.02	J-1048	(N/A)	17.17	J-1198
4142	J-2226	Forest	TRUE	1.00	926.93	2.28	928.21	20.00	24.29	20.00	20.00	J-1530	(N/A)	17.28	J-1198
5831	J-3119	Forest	TRUE	1.00	926.93	2.08	928.01	20.00	23.97	20.00	20.00	J-1530	(N/A)	17.28	J-1198
3705	J-2021	Forest	TRUE	1.00	929.34	2.08	930.42	20.00	25.74	20.00	20.03	J-1532	(N/A)	17.28	J-1198
4711	J-2477	Forest	TRUE	1.00	929.79	1.88	930.67	20.00	25.51	20.00	20.00	J-1532	(N/A)	17.28	J-1198
2653	J-1429	Forest	TRUE	1.00	930.55	1.88	931.43	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6317	J-3402	Forest	TRUE	1.00	930.92	1.88	931.80	20.00	20.10	20.00	20.31	J-1134	(N/A)	17.28	J-1198
1165	J-612	Forest	TRUE	1.00	933.33	1.08	933.40	20.00	25.19	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6137	J-3295	Forest	TRUE	1.00	933.33	1.88	934.21	20.00	24.93	20.00	20.00	J-3438	(N/A)	17.28	J-1198
2138	J-1134	Forest	TRUE	1.00	933.35	1.48	933.83	20.00	20.05	20.00	20.12	J-3402	(N/A)	17.28	J-1198
2641	J-1421	Forest	TRUE	1.00	934.08	1.08	934.16	20.00	37.69	20.00	20.00	J-1519	(N/A)	17.28	J-1198
2630	J-1415	Forest	TRUE	1.00	936.80	2.28	938.08	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2871	J-1556	Forest	TRUE	1.00	937.00	2.28	938.28	20.00	20.00	20.00	24.25	J-1197	(N/A)	17.17	J-1198
2779	J-1503	Forest	TRUE	1.00	941.47	2.28	942.75	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2632	J-1416	Forest	TRUE	1.00	944.13	1.88	945.02	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1812	J-932	Forest	TRUE	1.00	945.16	1.88	946.04	20.00	20.00	20.00	21.50	J-933	(N/A)	17.28	J-1198
5977	J-3200	Forest	TRUE	1.00	945.62	1.48	946.09	20.00	20.00	20.00	20.47	J-3199	(N/A)	17.28	J-1198
247	J-121	Forest	TRUE	1.00	945.78	1.08	945.86	20.00	48.37	20.00	20.02	J-3438	(N/A)	17.28	J-1198
4646	J-2442	Forest	TRUE	1.00	945.79	1.08	945.86	20.00	48.34	20.00	20.02	J-3438	(N/A)	17.28	J-1198
246	J-120	Forest	TRUE	1.00	945.85	1.48	946.33	20.00	48.48	20.00	20.02	J-3438	(N/A)	17.28	J-1198
4343	J-2294	Forest	TRUE	1.00	946.71	2.08	947.80	20.00	29.49	20.00	20.00	J-1211	(N/A)	17.28	J-1198
4621	J-2428	Forest	TRUE	1.00	946.72	1.48	947.19	20.00	29.47	20.00	20.00	J-1211	(N/A)	17.28	J-1198
2313	J-1240	Forest	TRUE	1.00	947.16	2.28	948.44	20.00	32.00	20.00	20.00	J-1257	(N/A)	17.28	J-1198
3599	J-1964	Forest	TRUE	1.00	947.79	1.88	948.67	20.00	20.00	20.00	22.23	J-1355	(N/A)	17.28	J-1198
2758	J-1491	Forest	TRUE	1.00	948.99	2.28	950.27	20.00	20.00	20.00	24.25	J-1197	(N/A)	17.17	J-1198
5976	J-3199	Forest	TRUE	1.00	949.05	1.88	949.93	20.00	20.22	20.00	20.02	J-3200	(N/A)	17.28	J-1198
7882	J-4138	Forest	TRUE	1.00	949.29	1.68	949.97	20.00	22.41	20.00	20.00	J-3200	(N/A)	17.28	J-1198
3677	J-2005	Forest	TRUE	1.00	952.57	2.08	953.66	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1188	J-622	Forest	TRUE	1.00	956.75	1.88	957.63	20.00	62.04	20.00	20.00	J-3438	(N/A)	17.28	J-1198
5502	J-2929	Forest	TRUE	1.00	956.75	1.28	957.03	20.00	61.62	20.00	20.00	J-3438	(N/A)	17.28	J-1198
1807	J-929	Forest	TRUE	1.00	956.90	1.88	957.78	20.00	20.00	20.00	20.00	J-930	(N/A)	17.28	J-1198
2588	J-1390	Forest	TRUE	1.00	957.67	2.08	958.75	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4294	J-2279	Stewartsville	TRUE	1.00	958.71	1.55	959.26	20.00	59.21	20.00	20.00	J-2326	(N/A)	17.28	J-1198
5392	J-2868	Stewartsville	TRUE	1.00	958.71	1.83	959.55	20.00	59.00	20.00	20.00	J-2326	(N/A)	17.28	J-1198
5878	J-3145	Forest	TRUE	1.00	961.16	1.28	961.43	20.00	30.79	20.00	20.00	J-1626	(N/A)	17.28	J-1198
5879	J-3146	Forest	TRUE	1.00	961.16	1.08	961.24	20.00	30.44	20.00	20.00	J-1626	(N/A)	17.28	J-1198
1882	J-978	Forest	TRUE	1.00	962.50	1.08	962.58	20.00	20.01	20.00	24.05	J-977	(N/A)	17.28	J-1198
2525	J-1355	Forest	TRUE	1.00	963.28	1.08	963.36	20.00	20.00	20.00	20.83	J-1964	(N/A)	17.28	J-1198
3915	J-2125	Forest	TRUE	1.00	964.68	2.68	966.36	20.00	21.49	20.00	20.01	J-3172	(N/A)	17.28	J-1198
1590	J-790	Forest	TRUE	1.00	968.17	1.28	968.44	20.00	20.00	20.00	24.24	J-1197	(N/A)	17.16	J-1198
658	J-379	Forest	TRUE	1.00	969.30	3.09	971.38	20.00	20.05	20.00	24.36	J-1197	(N/A		

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1815	J-934	Forest	TRUE	1.00	986.85	2.08	987.93	20.00	20.60	20.00	20.07	J-935	(N/A)	17.28	J-1198
3295	J-1793	Forest	TRUE	1.00	986.94	1.88	987.82	20.00	20.00	20.00	20.32	J-1030	(N/A)	17.28	J-1198
1963	J-1030	Forest	TRUE	1.00	990.06	1.08	990.14	20.00	20.01	20.00	20.26	J-1693	(N/A)	17.28	J-1198
4447	J-2327	Lakes	TRUE	1.00	990.83	1.63	991.46	20.00	20.00	20.00	20.29	J-3412	(N/A)	17.28	J-1198
2591	J-1392	Forest	TRUE	1.00	991.56	1.68	992.24	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5143	J-2723	Forest	TRUE	1.00	992.27	1.08	992.35	20.00	20.11	20.00	20.04	J-1693	(N/A)	17.28	J-1198
3131	J-1693	Forest	TRUE	1.00	992.65	1.48	993.13	20.00	20.01	20.00	20.04	J-1030	(N/A)	17.28	J-1198
6334	J-3412	Lakes	TRUE	1.00	994.52	1.20	994.72	20.00	20.17	20.00	20.01	J-2327	(N/A)	17.28	J-1198
6335	J-3413	Lakes	TRUE	1.00	994.75	1.20	994.95	20.00	20.52	20.00	20.00	J-2327	(N/A)	17.28	J-1198
1940	J-1015	Forest	TRUE	1.00	998.77	1.68	999.45	20.00	20.63	20.00	20.00	J-1736	(N/A)	17.28	J-1198
3670	J-2000	Forest	TRUE	1.00	999.51	1.48	999.99	20.00	20.95	20.00	20.00	J-1037	(N/A)	17.28	J-1198
6598	J-3567	Forest	TRUE	1.00	1,001.15	1.48	1,001.63	20.00	20.02	20.00	20.11	J-2004	(N/A)	17.28	J-1198
3676	J-2004	Forest	TRUE	1.00	1,002.19	1.88	1,003.07	20.00	20.01	20.00	20.30	J-3567	(N/A)	17.28	J-1198
1331	J-683	Forest	TRUE	1.00	1,004.66	1.08	1,004.74	20.00	51.74	20.00	20.03	J-3438	(N/A)	17.28	J-1198
5649	J-3014	Forest	TRUE	1.00	1,004.67	1.08	1,004.75	20.00	51.34	20.00	20.03	J-3438	(N/A)	17.28	J-1198
3802	J-2070	Forest	TRUE	1.00	1,004.90	2.08	1,005.98	20.00	20.00	20.00	24.24	J-1197	(N/A)	17.16	J-1198
2754	J-1489	Forest	TRUE	1.00	1,006.93	2.48	1,008.42	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.16	J-1198
4114	J-2213	Forest	TRUE	1.00	1,007.92	2.28	1,009.20	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6324	J-3406	Forest	TRUE	1.00	1,008.03	1.48	1,008.51	20.00	55.16	20.00	20.03	J-3200	(N/A)	17.28	J-1198
6325	J-3407	Forest	TRUE	1.00	1,008.05	2.48	1,009.53	20.00	54.53	20.00	20.02	J-3200	(N/A)	17.28	J-1198
7320	J-3962	Forest	TRUE	1.00	1,008.13	1.08	1,008.21	20.00	51.83	20.00	20.02	J-3200	(N/A)	17.28	J-1198
6519	J-3520	Forest	TRUE	1.00	1,008.13	1.68	1,008.81	20.00	51.98	20.00	20.02	J-3200	(N/A)	17.28	J-1198
6520	J-3521	Forest	TRUE	1.00	1,008.14	1.68	1,008.82	20.00	51.76	20.00	20.02	J-3200	(N/A)	17.28	J-1198
8151	J-4169	Forest	TRUE	1.00	1,008.27	2.08	1,009.35	20.00	35.57	20.00	20.01	J-3200	(N/A)	17.28	J-1198
5969	J-3195	Forest	TRUE	1.00	1,008.27	3.09	1,010.36	20.00	35.76	20.00	20.01	J-3200	(N/A)	17.28	J-1198
5970	J-3196	Forest	TRUE	1.00	1,008.28	1.48	1,008.76	20.00	35.09	20.00	20.01	J-3200	(N/A)	17.28	J-1198
7497	J-4027	Forest	TRUE	1.00	1,008.29	1.88	1,009.17	20.00	32.19	20.00	20.01	J-3200	(N/A)	17.28	J-1198
6191	J-3326	Forest	TRUE	1.00	1,008.31	1.08	1,008.38	20.00	30.86	20.00	20.01	J-3200	(N/A)	17.28	J-1198
6192	J-3327	Forest	TRUE	1.00	1,008.32	1.48	1,008.79	20.00	30.52	20.00	20.01	J-3200	(N/A)	17.28	J-1198
7463	J-4015	Forest	TRUE	1.00	1,008.33	1.88	1,009.21	20.00	29.56	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6502	J-3510	Forest	TRUE	1.00	1,010.14	2.48	1,011.63	20.00	20.24	20.00	20.05	J-2091	(N/A)	17.28	J-1198
4413	J-2317	Forest	TRUE	1.00	1,010.38	1.88	1,011.26	20.00	20.77	20.00	20.02	J-2091	(N/A)	17.28	J-1198
3903	J-2119	Lakes	TRUE	1.00	1,010.51	1.20	1,010.70	20.00	23.62	20.00	20.00	J-1586	(N/A)	17.28	J-1198
6300	J-3392	Forest	TRUE	1.00	1,013.23	2.68	1,014.91	20.00	20.00	20.00	20.17	J-2210	(N/A)	17.28	J-1198
2570	J-1380	Forest	TRUE	1.00	1,015.45	1.08	1,015.52	20.00	20.03	20.00	20.16	J-2354	(N/A)	17.28	J-1198
4494	J-2354	Forest	TRUE	1.00	1,015.78	1.08	1,015.86	20.00	20.04	20.00	20.00	J-1380	(N/A)	17.28	J-1198
4107	J-2210	Forest	TRUE	1.00	1,015.95	2.48	1,017.43	20.00	20.00	20.00	20.16	J-3392	(N/A)	17.28	J-1198
1722	J-874	Forest	TRUE	1.00	1,016.77	1.08	1,016.84	20.00	20.01	20.00	20.22	J-1115	(N/A)	17.28	J-1198
5114	J-2707	Forest	TRUE	1.00	1,017.27	1.88	1,018.15	20.00	20.00	20.00	20.18	J-2320	(N/A)	17.28	J-1198
4278	J-2274	Forest	TRUE	1.00	1,018.29	2.28	1,019.57	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2108	J-1114	Forest	TRUE	1.00	1,018.48	1.48	1,018.96	20.00	21.94	20.00	20.00	J-1115	(N/A)	17.28	J-1198
4422	J-2320	Forest	TRUE	1.00	1,019.07	2.08	1,020.15	20.00	20.00	20.00	20.04	J-2707	(N/A)	17.28	J-1198
2751	J-1487	Forest	TRUE	1.00	1,019.42	1.88	1,020.30	20.00	20.00	20.00	20.31	J-1833	(N/A)	17.28	J-1198
1242	J-649	Forest	TRUE	1.00	1,021.00	1.08	1,021.08	20.00	48.96	20.00	20.03	J-3438	(N/A)	17.28	J-1198
5979	J-3201	Forest	TRUE	1.00	1,021.02	1.08	1,021.10	20.00	48.34	20.00	20.03	J-3438	(N/A)	17.28	J-1198
4062	J-2190	Forest	TRUE	1.00	1,022.14	2.28	1,023.42	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4896	J-2582	Forest	TRUE	1.00	1,022.35	1.68	1,023.03	20.00	20.48	20.00	20.02	J-1833	(N/A)	17.28	J-1198
3369	J-1833	Forest	TRUE	1.00	1,022.56	2.68	1,024.24	20.00	20.00	20.00	20.64	J-2582	(N/A)	17.28	J-1198
2616	J-1407	Forest	TRUE	1.00	1,023.34	1.48	1,023.82	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1870	J-970	Forest	TRUE	1.00	1,023.35	2.08	1,024.43	20.00	20.01	20.00	24.23	J-1197	(N/A)	17.15	J-1198
3777	J-2058	Forest	TRUE	1.00	1,025.30	2.08	1,026.38	20.00	20.00	20.00	24.23	J-1197	(N/A)	17.15	J-1198
2596	J-1395	Forest	TRUE	1.00	1,026.62	1.88	1,027.50	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4193	J-2247	Forest	TRUE	1.00	1,027.01	2.88	1,028.89	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3643	J-1986	Forest	TRUE	1.00	1,027.74	1.88	1,028.62	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6885	J-3737	Forest	TRUE	1.00	1,029.93	1.48	1,030.41	20.00	20.01	20.00	20.45	J-3736	(N/A)	17.15	J-1198
4377	J-2304	Forest	TRUE	1.00	1,032.99	1.28	1,033.27	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2111	J-1116	Forest	TRUE	1.00	1,033.13	2.08	1,034.21	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6884	J-3736	Forest	TRUE	1.00	1,033.99	1.48	1,034.47	20.00	20.01	20.00	20.07	J-3737	(N/A)	17.15	J-1198
1743	J-888	Forest	TRUE	1.00	1,034.10	1.88	1,034.98	20.00	26.68	20.00	20.00	J-3736	(N/A)	17.15	J-1198
5610	J-2991	Forest	TRUE	1.00	1,034.10	1.88	1,034.98	20.00	26.25	20.00	20.00	J-3736	(N/A)	17.15	J-1198
7117	J-3869	Forest	TRUE	1.00	1,035.08	1.08	1,035.16	20.00	21.79	20.00	20.04	J-3736	(N/A)	17.15	J-1198
1218	J-3870	Forest	TRUE	1.00	1,035.09	1.08	1,035.16	20.00	21.84	20.00	20.04	J-3736	(N/A)	17.15	J-1198
1204	J-631	Forest	TRUE	1.00	1,036.05	1.08	1,036.12	20.00	45.75	20.00	20.02	J-3438	(N/A)	17.28	J-1198
6910	J-3752	Forest	TRUE	1.00	1,036.07	1.28	1,036.35	20.00	44.90	20.00	20.02	J-3438	(N/A)	17.28	J-1198
3380	J-1839	Forest	TRUE	1.00	1,036.57	1.28	1,036.85	20.00	20.02	20.00	21.96	J-1166	(N/A)	17.28	J-1198
2189	J-1166	Forest	TRUE	1.00	1,036.85	1.08	1,036.93	20.00	20.67	20.00	20.00	J-1839	(N/A)	17.28	J-1198
4532	J-2376	Forest	TRUE	1.00	1,038.06	1.08	1,038.13	20.00	20.01	20.00	20.34	J-1498	(N/A)	17.28	J-1198
2771	J-1498	Forest	TRUE	1.00	1,038.61	2.28	1,039.89	20.00	20.26	20.00	20.06	J-2376	(N/A)	17.28	J-1198
5566	J-2966	Forest	TRUE	1.00	1,039.28	1.08	1,039.36	20.00	49.66	20.00	20.02	J-1626	(N/A)	17.28	J-1198
5567	J-2967	Forest	TRUE	1.00	1,039.29	1.08	1,039.36	20.00	49.52	20.00	20.02	J-1626	(N/A)	17.28	J-1198
6968	J-3785	Forest	TRUE	1.00	1,039.42	1.28	1,039.70	20.00	21.45	20.00	20.00	J-1736	(N/A)	17.28	J-1198
3487	J-1900	Forest	TRUE	1.00	1,039.42	1.68	1,040.10	20.00	21.32	20.00	20.00	J-1736	(N/A)	17.28	J-1198
4952	J-2614	Forest	TRUE	1.00	1,040.22	2.28	1,041.51	20.00	31.12	20.00	20.01	J-379	(N/A)	17.28	J-1198
4953	J-2615	Forest	TRUE	1.00	1,040.23	1.08	1,040.31	20.00	30.24	20.00	20.00	J-379	(N/A)	17.28	J-1198
3658	J-1995	Forest	TRUE	1.00	1,041.01	1.08	1,041.08	20.00	46.72	20.00	20.00	J-2045	(N/A)	16.18	J-1198
6446	J-3478	Forest	TRUE	1.00	1,041.01	1.48	1,041.49	20.00	45.98	20.00	20.00	J-2045	(N/A)	16.18	J-1198
5479	J-2917	Forest	TRUE	1.00	1,041.91	1.28	1,042.19	20.00	34.45	20.00	20.00	J-2245	(N/A)	17.28	J-1198
3882	J-2109	Forest	TRUE	1.00	1,041.91	2.68	1,043.59	20.00	33.63	20.00	20.00	J-2245	(N/A)	17.28	J-119

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
1899	J-989	Forest	TRUE	1.00	1,056.31	3.29	1,058.60	20.00	40.28	20.00	20.03	J-1704	(N/A)	17.28	J-1198
3573	J-1948	Forest	TRUE	1.00	1,056.35	1.48	1,056.83	20.00	30.38	20.00	20.01	J-1653	(N/A)	17.28	J-1198
3772	J-2056	Forest	TRUE	1.00	1,056.41	3.29	1,058.70	20.00	37.01	20.00	20.02	J-1704	(N/A)	17.28	J-1198
6635	J-3590	Forest	TRUE	1.00	1,056.50	1.28	1,056.78	20.00	38.16	20.00	20.02	J-1704	(N/A)	17.28	J-1198
1616	J-807	Forest	TRUE	1.00	1,056.51	1.88	1,057.39	20.00	28.78	20.00	20.02	J-1704	(N/A)	17.28	J-1198
4311	J-2285	Forest	TRUE	1.00	1,056.51	2.28	1,057.80	20.00	22.92	20.00	20.02	J-1704	(N/A)	17.28	J-1198
3631	J-1980	Forest	TRUE	1.00	1,056.53	2.28	1,057.81	20.00	30.30	20.00	20.02	J-1704	(N/A)	17.28	J-1198
3275	J-1781	Forest	TRUE	1.00	1,056.56	2.28	1,057.84	20.00	39.31	20.00	20.02	J-1704	(N/A)	17.28	J-1198
3630	J-1979	Forest	TRUE	1.00	1,056.58	1.88	1,057.46	20.00	32.41	20.00	20.02	J-1704	(N/A)	17.28	J-1198
5714	J-3052	Forest	TRUE	1.00	1,056.58	1.08	1,056.66	20.00	32.47	20.00	20.02	J-1704	(N/A)	17.28	J-1198
3148	J-1704	Forest	TRUE	1.00	1,056.88	1.68	1,057.56	20.00	20.00	20.00	20.12	J-1653	(N/A)	17.28	J-1198
6887	J-3738	Forest	TRUE	1.00	1,057.29	1.08	1,057.37	20.00	20.02	20.00	20.45	J-3188	(N/A)	17.28	J-1198
3812	J-2075	Forest	TRUE	1.00	1,061.37	3.69	1,064.05	20.00	20.00	20.00	21.40	J-1704	(N/A)	17.28	J-1198
4297	J-2281	Forest	TRUE	1.00	1,061.58	1.08	1,061.66	20.00	20.47	20.00	20.02	J-3188	(N/A)	17.28	J-1198
2551	J-1370	Forest	TRUE	1.00	1,063.81	2.08	1,064.89	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3662	J-1996	Forest	TRUE	1.00	1,065.05	1.28	1,065.33	20.00	20.00	20.00	22.19	J-1775	(N/A)	17.28	J-1198
5352	J-2844	Forest	TRUE	1.00	1,067.74	1.48	1,068.21	20.00	20.00	20.00	20.40	J-1354	(N/A)	17.28	J-1198
3961	J-2146	Forest	TRUE	1.00	1,067.94	2.28	1,069.22	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2524	J-1354	Forest	TRUE	1.00	1,069.36	2.08	1,070.44	20.00	20.20	20.00	20.06	J-2844	(N/A)	17.28	J-1198
3260	J-1772	Stewartsville	TRUE	1.00	1,075.08	1.83	1,075.91	20.00	69.79	20.00	20.00	J-2326	(N/A)	17.28	J-1198
3259	J-1771	Stewartsville	TRUE	1.00	1,075.08	1.26	1,075.34	20.00	69.40	20.00	20.00	J-2326	(N/A)	17.28	J-1198
4201	J-2250	Forest	TRUE	1.00	1,076.27	1.28	1,076.55	20.00	27.72	20.00	20.00	J-2878	(N/A)	17.28	J-1198
6964	J-3783	Forest	TRUE	1.00	1,076.27	1.68	1,076.95	20.00	26.82	20.00	20.00	J-2878	(N/A)	17.28	J-1198
4607	J-2420	Forest	TRUE	1.00	1,077.62	1.08	1,077.70	20.00	20.01	20.00	20.45	J-2023	(N/A)	17.28	J-1198
3708	J-2023	Forest	TRUE	1.00	1,078.54	2.88	1,080.42	20.00	20.32	20.00	20.06	J-2420	(N/A)	17.28	J-1198
3784	J-2061	Forest	TRUE	1.00	1,079.38	1.68	1,080.06	20.00	20.00	20.00	23.39	J-1197	(N/A)	16.31	J-1198
4514	J-2366	Forest	TRUE	1.00	1,082.61	1.88	1,083.49	20.00	20.00	20.00	20.15	J-3863	(N/A)	17.28	J-1198
3355	J-1826	Forest	TRUE	1.00	1,084.13	1.08	1,084.21	20.00	20.00	20.00	21.37	J-3632	(N/A)	17.28	J-1198
4513	J-2365	Forest	TRUE	1.00	1,084.27	1.08	1,084.35	20.00	20.06	20.00	20.03	J-2366	(N/A)	17.28	J-1198
7106	J-3863	Forest	TRUE	1.00	1,084.65	1.08	1,084.73	20.00	20.00	20.00	20.01	J-2366	(N/A)	17.28	J-1198
4874	J-2568	Forest	TRUE	1.00	1,085.37	1.28	1,085.64	20.00	20.01	20.00	20.13	J-1775	(N/A)	17.28	J-1198
3644	J-1987	Forest	TRUE	1.00	1,086.54	2.08	1,087.62	20.00	22.14	20.00	20.00	J-1986	(N/A)	17.28	J-1198
6379	J-3439	Forest	TRUE	1.00	1,086.54	1.48	1,087.02	20.00	21.65	20.00	20.00	J-1986	(N/A)	17.28	J-1198
3265	J-1775	Forest	TRUE	1.00	1,086.63	1.28	1,086.91	20.00	20.01	20.00	20.08	J-2568	(N/A)	17.28	J-1198
1695	J-857	Forest	TRUE	1.00	1,087.22	1.48	1,087.70	20.00	20.03	20.00	22.68	J-1965	(N/A)	17.28	J-1198
2604	J-1400	Forest	TRUE	1.00	1,087.90	2.28	1,089.18	20.00	21.45	20.00	20.00	J-1401	(N/A)	17.28	J-1198
6707	J-3632	Forest	TRUE	1.00	1,088.74	1.08	1,088.81	20.00	20.00	20.00	20.27	J-1826	(N/A)	17.28	J-1198
2242	J-1197	Forest	TRUE	1.00	1,089.22	1.48	1,089.70	20.00	20.00	20.00	20.87	J-3957	(N/A)	12.92	J-1198
7126	J-3874	Forest	TRUE	1.00	1,089.31	1.08	1,089.38	20.00	20.23	20.00	20.04	J-3425	(N/A)	17.28	J-1198
7127	J-3875	Forest	TRUE	1.00	1,089.32	1.48	1,089.80	20.00	20.23	20.00	20.03	J-3425	(N/A)	17.28	J-1198
8375	J-4175	Forest	TRUE	1.00	1,089.42	1.08	1,089.50	20.00	91.31	20.00	20.02	J-3425	(N/A)	17.28	J-1198
7588	J-4057	Forest	TRUE	1.00	1,089.49	1.48	1,089.97	20.00	20.02	20.00	20.02	J-3425	(N/A)	17.28	J-1198
2285	J-1223	Forest	TRUE	1.00	1,089.69	2.88	1,091.57	20.00	46.89	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6406	J-3455	Forest	TRUE	1.00	1,089.69	1.48	1,090.17	20.00	43.93	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6405	J-3454	Forest	TRUE	1.00	1,089.69	1.28	1,089.97	20.00	42.91	20.00	20.00	J-3425	(N/A)	17.28	J-1198
2197	J-1171	Forest	TRUE	1.00	1,089.72	1.68	1,090.40	20.00	31.92	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6538	J-3531	Forest	TRUE	1.00	1,089.72	1.48	1,090.20	20.00	30.98	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6537	J-3530	Forest	TRUE	1.00	1,089.72	1.48	1,090.20	20.00	29.84	20.00	20.00	J-3425	(N/A)	17.28	J-1198
2222	J-1186	Forest	TRUE	1.00	1,089.72	1.08	1,089.80	20.00	26.90	20.00	20.00	J-3425	(N/A)	17.28	J-1198
4473	J-2342	Forest	TRUE	1.00	1,089.72	1.48	1,090.20	20.00	25.75	20.00	20.00	J-3425	(N/A)	17.28	J-1198
4474	J-2343	Forest	TRUE	1.00	1,089.72	1.08	1,089.80	20.00	25.94	20.00	20.00	J-3425	(N/A)	17.28	J-1198
3354	J-1825	Forest	TRUE	1.00	1,089.74	1.08	1,089.81	20.00	20.83	20.00	20.08	J-1826	(N/A)	17.28	J-1198
2738	J-1479	Forest	TRUE	1.00	1,090.40	4.09	1,093.49	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3397	J-1848	Forest	TRUE	1.00	1,091.65	1.28	1,091.93	20.00	20.13	20.00	20.05	J-1774	(N/A)	17.28	J-1198
3264	J-1774	Forest	TRUE	1.00	1,092.09	1.28	1,092.36	20.00	20.01	20.00	20.09	J-1775	(N/A)	17.28	J-1198
5345	J-2840	Forest	TRUE	1.00	1,092.34	1.48	1,092.82	20.00	20.01	20.00	20.29	J-1173	(N/A)	17.28	J-1198
2135	J-1132	Lakes	TRUE	1.00	1,092.56	1.72	1,093.27	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
4183	J-2242	Forest	TRUE	1.00	1,092.73	3.29	1,095.01	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2200	J-1173	Forest	TRUE	1.00	1,094.37	1.48	1,094.85	20.00	20.01	20.00	20.01	J-2840	(N/A)	17.28	J-1198
5781	J-3091	Forest	TRUE	1.00	1,094.39	1.08	1,094.47	20.00	20.02	20.00	20.30	J-3090	(N/A)	17.14	J-1198
3616	J-1972	Forest	TRUE	1.00	1,095.14	1.68	1,095.82	20.00	40.01	20.00	20.00	J-1704	(N/A)	17.28	J-1198
4976	J-2628	Forest	TRUE	1.00	1,095.14	1.28	1,095.42	20.00	39.34	20.00	20.00	J-1704	(N/A)	17.28	J-1198
6327	J-3408	Forest	TRUE	1.00	1,097.14	1.68	1,097.82	20.00	20.00	20.00	20.34	J-2131	(N/A)	17.28	J-1198
4603	J-2418	Forest	TRUE	1.00	1,097.38	2.28	1,098.66	20.00	20.06	20.00	20.03	J-1350	(N/A)	17.28	J-1198
5780	J-3090	Forest	TRUE	1.00	1,097.38	1.08	1,097.46	20.00	20.02	20.00	20.06	J-3091	(N/A)	17.14	J-1198
2517	J-1350	Forest	TRUE	1.00	1,097.89	1.08	1,097.97	20.00	20.00	20.00	20.21	J-2418	(N/A)	17.28	J-1198
3945	J-2139	Forest	TRUE	1.00	1,098.56	1.68	1,099.24	20.00	23.46	20.00	20.00	J-1704	(N/A)	17.28	J-1198
6979	J-3791	Forest	TRUE	1.00	1,098.56	1.48	1,099.04	20.00	23.29	20.00	20.00	J-1704	(N/A)	17.28	J-1198
3615	J-1971	Forest	TRUE	1.00	1,098.56	3.49	1,101.05	20.00	41.28	20.00	20.00	J-1704	(N/A)	17.28	J-1198
3817	J-2077	Forest	TRUE	1.00	1,098.57	4.29	1,101.86	20.00	34.32	20.00	20.00	J-1704	(N/A)	17.28	J-1198
6980	J-3792	Forest	TRUE	1.00	1,098.58	2.08	1,099.67	20.00	22.12	20.00	20.00	J-1704	(N/A)	17.28	J-1198
5078	J-2688	Forest	TRUE	1.00	1,099.94	1.28	1,100.22	20.00	21.46	20.00	20.04	J-2070	(N/A)	17.14	J-1198
3106	J-1678	Forest	TRUE	1.00	1,099.98	1.08	1,100.05	20.00	21.90	20.00	20.04	J-2070	(N/A)	17.14	J-1198
3105	J-1677	Forest	TRUE	1.00	1,099.99	1.28	1,100.27	20.00	22.14	20.00	20.04	J-2070	(N/A)	17.14	J-1198
3671	J-2001	Forest	TRUE	1.00	1,100.82	2.28	1,102.10	20.00	23.44	20.00	20.00	J-1037	(N/A)	17.28	J-1198
3927	J-2131	Forest	TRUE	1.00	1,102.41	2.28	1,103.70	20.00	20.00	20.00	20.05	J-3408	(N/A)	17.28	J-1198
3673	J-2002	Forest	TRUE	1.00	1,103.53	1.88	1,104.41	20.00	20.00	20.00	24.08	J-2919	(N/A)	17.28	J-1198
7144	J-3884	Forest	TRUE	1.00	1,104.18	1.08	1,104.25	20.00	20.46</						

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3065	J-1652	Forest	TRUE	1.00	1,117.17	1.68	1,117.85	20.00	20.07	20.00	20.03	J-2447	(N/A)	17.28	J-1198
6215	J-3341	Forest	TRUE	1.00	1,118.71	2.68	1,120.39	20.00	29.89	20.00	20.01	J-3200	(N/A)	17.28	J-1198
6216	J-3342	Forest	TRUE	1.00	1,118.71	1.08	1,118.79	20.00	29.80	20.00	20.01	J-3200	(N/A)	17.28	J-1198
2648	J-1426	Forest	TRUE	1.00	1,121.34	1.88	1,122.22	20.00	20.01	20.00	24.21	J-1197	(N/A)	17.13	J-1198
2564	J-1377	Forest	TRUE	1.00	1,121.36	1.08	1,121.44	20.00	23.81	20.00	20.05	J-1048	(N/A)	17.13	J-1198
7021	J-3816	Forest	TRUE	1.00	1,123.90	1.08	1,123.98	20.00	20.00	20.00	20.64	J-1695	(N/A)	17.28	J-1198
6869	J-3727	Forest	TRUE	1.00	1,127.26	1.68	1,127.94	20.00	20.00	20.00	20.99	J-3728	(N/A)	17.28	J-1198
5488	J-2922	Forest	TRUE	1.00	1,127.35	1.68	1,128.03	20.00	22.02	20.00	20.06	J-1048	(N/A)	17.13	J-1198
3297	J-1794	Forest	TRUE	1.00	1,127.36	1.08	1,127.44	20.00	22.17	20.00	20.06	J-1048	(N/A)	17.13	J-1198
1949	J-1021	Stewartsville	TRUE	1.00	1,129.38	1.11	1,129.49	20.00	31.11	20.00	20.03	J-1022	(N/A)	17.28	J-1198
3876	J-2106	Forest	TRUE	1.00	1,129.91	1.68	1,130.59	20.00	20.00	20.00	24.25	J-4154	(N/A)	17.28	J-1198
7905	J-4142	Forest	TRUE	1.00	1,130.37	1.28	1,130.65	20.00	20.02	20.00	22.84	J-3137	(N/A)	17.28	J-1198
4200	J-2249	Forest	TRUE	1.00	1,130.55	1.88	1,131.43	20.00	22.27	20.00	20.00	J-1965	(N/A)	17.28	J-1198
3601	J-1965	Forest	TRUE	1.00	1,130.55	1.08	1,130.63	20.00	20.00	20.00	20.40	J-3727	(N/A)	17.28	J-1198
5204	J-2757	Forest	TRUE	1.00	1,130.59	1.88	1,131.47	20.00	36.72	20.00	20.00	J-1211	(N/A)	17.28	J-1198
4342	J-2293	Forest	TRUE	1.00	1,130.59	1.68	1,131.27	20.00	36.63	20.00	20.00	J-1211	(N/A)	17.28	J-1198
3133	J-1694	Forest	TRUE	1.00	1,130.84	1.08	1,130.92	20.00	20.00	20.00	20.26	J-1695	(N/A)	17.28	J-1198
3894	J-2115	Forest	TRUE	1.00	1,132.11	1.68	1,132.78	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3727	J-2033	Forest	TRUE	1.00	1,132.71	2.28	1,134.00	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6050	J-3242	Forest	TRUE	1.00	1,133.12	1.68	1,133.80	20.00	20.05	20.00	20.03	J-3200	(N/A)	17.28	J-1198
7622	J-4070	Forest	TRUE	1.00	1,133.55	1.28	1,133.83	20.00	29.54	20.00	20.01	J-3200	(N/A)	17.28	J-1198
7510	J-4031	Forest	TRUE	1.00	1,133.61	1.08	1,133.69	20.00	25.89	20.00	20.00	J-3200	(N/A)	17.28	J-1198
7511	J-4032	Forest	TRUE	1.00	1,133.62	1.48	1,134.10	20.00	25.00	20.00	20.00	J-3200	(N/A)	17.28	J-1198
2853	J-1546	Forest	TRUE	1.00	1,133.65	2.08	1,134.73	20.00	21.35	20.00	20.00	J-3200	(N/A)	17.28	J-1198
1388	J-693	Forest	TRUE	1.00	1,134.05	1.28	1,134.32	20.00	76.78	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3134	J-1695	Forest	TRUE	1.00	1,135.66	1.88	1,136.54	20.00	20.00	20.00	20.10	J-1694	(N/A)	17.28	J-1198
6870	J-3728	Forest	TRUE	1.00	1,137.32	2.08	1,138.40	20.00	20.40	20.00	20.00	J-3727	(N/A)	17.28	J-1198
4263	J-2269	Forest	TRUE	1.00	1,139.93	1.28	1,140.21	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4082	J-2200	Forest	TRUE	1.00	1,140.06	1.88	1,140.94	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2644	J-1423	Forest	TRUE	1.00	1,146.59	1.88	1,147.47	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4243	J-2261	Forest	TRUE	1.00	1,146.69	2.28	1,147.97	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5239	J-2778	Forest	TRUE	1.00	1,147.38	1.28	1,147.66	20.00	31.31	20.00	20.00	J-941	(N/A)	17.28	J-1198
5240	J-2779	Forest	TRUE	1.00	1,147.38	1.48	1,147.86	20.00	31.47	20.00	20.00	J-941	(N/A)	17.28	J-1198
1746	J-890	Forest	TRUE	1.00	1,154.83	1.28	1,155.11	20.00	23.72	20.00	20.00	J-913	(N/A)	17.28	J-1198
2520	J-1352	Forest	TRUE	1.00	1,154.83	1.08	1,154.91	20.00	23.43	20.00	20.00	J-913	(N/A)	17.28	J-1198
3485	J-1899	Forest	TRUE	1.00	1,157.07	1.08	1,157.15	20.00	20.02	20.00	21.79	J-1898	(N/A)	17.28	J-1198
6431	J-3469	Stewartsville	TRUE	1.00	1,158.14	1.11	1,158.25	20.00	28.31	20.00	20.04	J-1022	(N/A)	17.28	J-1198
3623	J-1975	Stewartsville	TRUE	1.00	1,158.22	1.11	1,158.33	20.00	30.40	20.00	20.03	J-1022	(N/A)	17.28	J-1198
5862	J-3136	Forest	TRUE	1.00	1,159.20	1.28	1,159.48	20.00	20.02	20.00	20.23	J-3137	(N/A)	17.28	J-1198
5863	J-3137	Forest	TRUE	1.00	1,161.58	1.48	1,162.06	20.00	20.01	20.00	20.06	J-4142	(N/A)	17.28	J-1198
1686	J-851	Forest	TRUE	1.00	1,164.47	1.48	1,164.95	20.00	21.54	20.00	20.03	J-850	(N/A)	17.28	J-1198
5811	J-3108	Lakes	TRUE	1.00	1,165.39	1.29	1,165.68	20.00	20.00	20.00	21.07	J-2184	(N/A)	17.28	J-1198
3981	J-2155	Forest	TRUE	1.00	1,168.14	2.08	1,169.22	20.00	20.02	20.00	23.89	J-2919	(N/A)	17.28	J-1198
5193	J-2751	Forest	TRUE	1.00	1,168.63	1.88	1,169.51	20.00	20.00	20.00	20.18	J-2174	(N/A)	17.28	J-1198
3594	J-1961	Forest	TRUE	1.00	1,171.00	1.88	1,171.88	20.00	20.00	20.00	22.02	J-1960	(N/A)	17.28	J-1198
4025	J-2174	Forest	TRUE	1.00	1,171.53	1.88	1,172.41	20.00	20.00	20.00	20.09	J-2751	(N/A)	17.28	J-1198
2602	J-1399	Forest	TRUE	1.00	1,172.45	1.88	1,173.33	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3484	J-1898	Forest	TRUE	1.00	1,173.20	2.28	1,174.49	20.00	20.01	20.00	21.02	J-1899	(N/A)	17.28	J-1198
4046	J-2184	Lakes	TRUE	1.00	1,176.23	1.37	1,176.61	20.00	20.73	20.00	20.02	J-3108	(N/A)	17.28	J-1198
3853	J-2095	Forest	TRUE	1.00	1,176.46	1.68	1,177.14	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
7173	J-3898	Forest	TRUE	1.00	1,178.35	1.08	1,178.43	20.00	20.03	20.00	20.10	J-3897	(N/A)	17.28	J-1198
7172	J-3897	Forest	TRUE	1.00	1,179.22	1.08	1,179.30	20.00	20.03	20.00	20.03	J-3898	(N/A)	17.28	J-1198
3890	J-2113	Forest	TRUE	1.00	1,179.75	1.48	1,180.23	20.00	20.00	20.00	23.23	J-1197	(N/A)	16.15	J-1198
6927	J-3762	Forest	TRUE	1.00	1,179.96	1.08	1,180.04	20.00	20.00	20.00	20.67	J-1763	(N/A)	17.28	J-1198
1834	J-946	Forest	TRUE	1.00	1,180.39	2.08	1,181.48	20.00	20.01	20.00	22.46	J-947	(N/A)	17.12	J-1198
3245	J-1762	Forest	TRUE	1.00	1,186.29	1.08	1,186.37	20.00	20.00	20.00	20.32	J-1763	(N/A)	17.28	J-1198
7027	J-3819	Forest	TRUE	1.00	1,186.50	2.48	1,187.98	20.00	20.00	20.00	20.96	J-2151	(N/A)	17.28	J-1198
6130	J-3291	Forest	TRUE	1.00	1,186.56	1.68	1,187.24	20.00	20.00	20.00	20.61	J-2299	(N/A)	17.28	J-1198
3442	J-1874	Forest	TRUE	1.00	1,189.06	1.08	1,189.14	20.00	26.11	20.00	20.01	J-4154	(N/A)	17.28	J-1198
3593	J-1960	Forest	TRUE	1.00	1,189.10	2.68	1,190.78	20.00	20.00	20.00	22.33	J-1961	(N/A)	17.28	J-1198
3441	J-1873	Forest	TRUE	1.00	1,189.14	1.48	1,189.62	20.00	23.48	20.00	20.00	J-4154	(N/A)	17.28	J-1198
5851	J-3130	Forest	TRUE	1.00	1,189.16	1.48	1,189.64	20.00	22.56	20.00	20.00	J-4154	(N/A)	17.28	J-1198
4178	J-2240	Forest	TRUE	1.00	1,190.49	2.68	1,192.17	20.00	20.07	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3246	J-1763	Forest	TRUE	1.00	1,192.12	1.28	1,192.40	20.00	20.00	20.00	20.02	J-3762	(N/A)	17.28	J-1198
4360	J-2299	Forest	TRUE	1.00	1,195.36	3.09	1,197.45	20.00	20.20	20.00	20.00	J-3291	(N/A)	17.28	J-1198
6903	J-3748	Forest	TRUE	1.00	1,197.70	1.08	1,197.78	20.00	20.00	20.00	21.45	J-1796	(N/A)	17.28	J-1198
4720	J-2482	Forest	TRUE	1.00	1,198.78	1.08	1,198.85	20.00	45.82	20.00	20.00	J-3438	(N/A)	17.28	J-1198
1144	J-605	Forest	TRUE	1.00	1,198.78	1.28	1,199.05	20.00	45.58	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3651	J-1991	Forest	TRUE	1.00	1,200.35	2.28	1,201.63	20.00	35.14	20.00	20.02	J-2366	(N/A)	17.28	J-1198
3652	J-1992	Forest	TRUE	1.00	1,200.57	1.48	1,201.05	20.00	26.86	20.00	20.00	J-2366	(N/A)	17.28	J-1198
4909	J-2589	Forest	TRUE	1.00	1,200.58	1.68	1,201.25	20.00	26.74	20.00	20.00	J-2366	(N/A)	17.28	J-1198
3079	J-1661	Forest	TRUE	1.00	1,201.25	1.08	1,201.32	20.00	20.01	20.00	20.23	J-1660	(N/A)	17.28	J-1198
6477	J-3496	Forest	TRUE	1.00	1,201.52	1.48	1,202.00	20.00	20.01	20.00	20.46	J-3495	(N/A)	17.28	J-1198
6231	J-3351	Forest	TRUE	1.00	1,201.83	2.28	1,203.11	20.00	20.00	20.00	20.14	J-1660	(N/A)	17.28	J-1198
3078	J-1660	Forest	TRUE	1.00	1,202.74	1.28	1,203.01	20.00	20.01	20.00	20.01	J-1661	(N/A)	17.28	J-1198
4100	J-2208	Forest	TRUE	1.00	1,204.40	2.28	1,205.69	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6476	J-3495	Forest	TRUE	1.00	1,205.12	1.88	1,206.00	20.00	20.01	20.00	20.06	J-3496	(N/A)	17.28	J-1198
2180	J-1160	Forest	TRUE	1.00	1,205.18	1.08	1,205.25	20.00	33.74	20					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4335	J-2291	Forest	TRUE	1.00	1,216.45	2.48	1,217.94	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1143	J-604	Forest	TRUE	1.00	1,218.20	1.48	1,218.68	20.00	48.33	20.00	20.00	J-3438	(N/A)	17.28	J-1198
5787	J-3094	Forest	TRUE	1.00	1,218.20	1.08	1,218.28	20.00	48.08	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6848	J-3715	Forest	TRUE	1.00	1,218.87	1.48	1,219.35	20.00	28.92	20.00	20.00	J-2267	(N/A)	17.17	J-1198
4214	J-2254	Forest	TRUE	1.00	1,218.87	1.48	1,219.35	20.00	28.78	20.00	20.00	J-2267	(N/A)	17.17	J-1198
3988	J-2157	Forest	TRUE	1.00	1,220.59	1.88	1,221.47	20.00	22.25	20.00	20.00	J-2840	(N/A)	17.28	J-1198
3432	J-1868	Forest	TRUE	1.00	1,221.30	3.89	1,224.19	20.00	20.39	20.00	20.03	J-3687	(N/A)	17.28	J-1198
4662	J-2450	Forest	TRUE	1.00	1,221.46	2.28	1,222.74	20.00	20.00	20.00	20.32	J-1263	(N/A)	17.11	J-1198
2356	J-1263	Forest	TRUE	1.00	1,222.97	2.48	1,224.45	20.00	20.16	20.00	20.06	J-2450	(N/A)	17.11	J-1198
4112	J-2212	Forest	TRUE	1.00	1,227.21	2.48	1,228.69	20.00	20.05	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5681	J-3033	Forest	TRUE	1.00	1,227.36	1.48	1,227.84	20.00	20.00	20.00	20.21	J-1776	(N/A)	17.28	J-1198
3875	J-2105	Forest	TRUE	1.00	1,227.49	1.88	1,228.37	20.00	31.87	20.00	20.02	J-4154	(N/A)	17.28	J-1198
1790	J-918	Forest	TRUE	1.00	1,230.11	1.08	1,230.18	20.00	20.14	20.00	20.03	J-1776	(N/A)	17.28	J-1198
3303	J-1797	Forest	TRUE	1.00	1,230.43	1.48	1,230.91	20.00	20.53	20.00	20.01	J-1776	(N/A)	17.28	J-1198
3267	J-1776	Forest	TRUE	1.00	1,230.60	1.48	1,231.08	20.00	20.00	20.00	20.18	J-3033	(N/A)	17.28	J-1198
5086	J-2692	Forest	TRUE	1.00	1,231.80	1.48	1,232.28	20.00	20.00	20.00	21.03	J-2031	(N/A)	17.28	J-1198
6401	J-3452	Forest	TRUE	1.00	1,232.52	1.68	1,233.19	20.00	27.19	20.00	20.00	J-1197	(N/A)	12.92	J-1198
6400	J-3451	Forest	TRUE	1.00	1,232.52	1.48	1,233.00	20.00	26.75	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3864	J-2100	Forest	TRUE	1.00	1,233.70	1.48	1,234.17	20.00	20.00	20.00	24.19	J-1197	(N/A)	17.11	J-1198
5218	J-2765	Forest	TRUE	1.00	1,233.91	2.08	1,234.99	20.00	20.00	20.00	20.19	J-2766	(N/A)	17.28	J-1198
6717	J-3638	Forest	TRUE	1.00	1,235.15	1.48	1,235.63	20.00	58.57	20.00	20.01	J-3425	(N/A)	17.28	J-1198
6716	J-3637	Forest	TRUE	1.00	1,235.16	1.68	1,235.84	20.00	58.21	20.00	20.01	J-3425	(N/A)	17.28	J-1198
1858	J-962	Forest	TRUE	1.00	1,237.63	2.28	1,238.91	20.00	31.89	20.00	20.00	J-2766	(N/A)	17.28	J-1198
5500	J-2928	Forest	TRUE	1.00	1,237.64	1.48	1,238.12	20.00	31.35	20.00	20.00	J-2766	(N/A)	17.28	J-1198
5219	J-2766	Forest	TRUE	1.00	1,237.70	1.88	1,238.58	20.00	20.00	20.00	20.11	J-2765	(N/A)	17.28	J-1198
3723	J-2031	Forest	TRUE	1.00	1,238.35	1.68	1,239.03	20.00	20.73	20.00	20.00	J-2692	(N/A)	17.28	J-1198
3557	J-1939	Forest	TRUE	1.00	1,239.34	1.08	1,239.42	20.00	20.01	20.00	21.61	J-1940	(N/A)	17.28	J-1198
4610	J-2422	Forest	TRUE	1.00	1,240.11	1.88	1,240.99	20.00	20.04	20.00	20.02	J-1704	(N/A)	17.28	J-1198
4609	J-2421	Forest	TRUE	1.00	1,240.63	1.68	1,241.31	20.00	20.09	20.00	20.00	J-1704	(N/A)	17.28	J-1198
1984	J-1044	Forest	TRUE	1.00	1,240.90	1.08	1,240.98	20.00	20.01	20.00	21.93	J-2619	(N/A)	17.11	J-1198
5477	J-2916	Forest	TRUE	1.00	1,241.93	1.88	1,242.81	20.00	20.00	20.00	20.19	J-1877	(N/A)	17.28	J-1198
2206	J-1176	Forest	TRUE	1.00	1,243.04	1.28	1,243.32	20.00	37.67	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3448	J-1877	Forest	TRUE	1.00	1,243.57	1.08	1,243.64	20.00	20.01	20.00	20.18	J-2916	(N/A)	17.28	J-1198
1061	J-574	Forest	TRUE	1.00	1,244.17	1.88	1,245.05	20.00	53.99	20.00	20.00	J-3438	(N/A)	17.28	J-1198
4650	J-2444	Forest	TRUE	1.00	1,244.17	1.68	1,244.85	20.00	53.96	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3128	J-1691	Forest	TRUE	1.00	1,250.48	1.28	1,250.76	20.00	31.56	20.00	20.00	J-2110	(N/A)	17.28	J-1198
5191	J-2750	Forest	TRUE	1.00	1,250.48	2.28	1,251.77	20.00	31.20	20.00	20.00	J-2110	(N/A)	17.28	J-1198
5005	J-2645	Forest	TRUE	1.00	1,250.96	1.48	1,251.44	20.00	20.00	20.00	20.27	J-1940	(N/A)	17.28	J-1198
3674	J-2003	Forest	TRUE	1.00	1,251.31	1.88	1,252.19	20.00	23.26	20.00	20.00	J-2002	(N/A)	17.28	J-1198
4152	J-2229	Forest	TRUE	1.00	1,251.79	1.88	1,252.67	20.00	20.02	20.00	23.14	J-2919	(N/A)	17.28	J-1198
6212	J-3339	Forest	TRUE	1.00	1,252.08	1.88	1,252.96	20.00	34.19	20.00	20.01	J-3200	(N/A)	17.28	J-1198
6213	J-3340	Forest	TRUE	1.00	1,252.11	2.08	1,253.19	20.00	33.51	20.00	20.01	J-3200	(N/A)	17.28	J-1198
3058	J-1647	Forest	TRUE	1.00	1,252.41	1.08	1,252.49	20.00	20.00	20.00	20.29	J-1648	(N/A)	17.28	J-1198
3140	J-1699	Forest	TRUE	1.00	1,252.78	1.08	1,252.86	20.00	20.00	20.00	20.49	J-1698	(N/A)	17.28	J-1198
3558	J-1940	Forest	TRUE	1.00	1,253.20	1.08	1,253.28	20.00	20.01	20.00	20.01	J-2645	(N/A)	17.28	J-1198
3059	J-1648	Forest	TRUE	1.00	1,253.38	1.08	1,253.45	20.00	20.14	20.00	20.09	J-1647	(N/A)	17.28	J-1198
5147	J-2725	Forest	TRUE	1.00	1,256.10	1.68	1,256.78	20.00	20.03	20.00	20.18	J-1699	(N/A)	17.28	J-1198
3129	J-1692	Forest	TRUE	1.00	1,257.10	2.08	1,258.18	20.00	31.68	20.00	20.00	J-2110	(N/A)	17.28	J-1198
3139	J-1698	Forest	TRUE	1.00	1,257.81	1.08	1,257.89	20.00	20.10	20.00	20.04	J-1699	(N/A)	17.28	J-1198
5141	J-2722	Forest	TRUE	1.00	1,258.32	1.08	1,258.39	20.00	20.00	20.00	20.03	J-1838	(N/A)	17.28	J-1198
3728	J-2034	Forest	TRUE	1.00	1,258.39	2.88	1,260.27	20.00	22.82	20.00	20.00	J-2033	(N/A)	17.28	J-1198
6737	J-3649	Forest	TRUE	1.00	1,258.39	2.28	1,259.67	20.00	21.76	20.00	20.00	J-2033	(N/A)	17.28	J-1198
3378	J-1838	Forest	TRUE	1.00	1,258.51	1.08	1,258.59	20.00	20.00	20.00	20.29	J-2722	(N/A)	17.28	J-1198
4180	J-2241	Forest	TRUE	1.00	1,259.78	2.48	1,261.27	20.00	42.89	20.00	20.01	J-3438	(N/A)	17.28	J-1198
6279	J-3380	Forest	TRUE	1.00	1,259.79	1.48	1,260.27	20.00	42.39	20.00	20.01	J-3438	(N/A)	17.28	J-1198
983	J-539	Forest	TRUE	1.00	1,259.98	1.48	1,260.46	20.00	65.00	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3447	J-1876	Forest	TRUE	1.00	1,260.75	1.48	1,261.22	20.00	20.00	20.00	20.85	J-1877	(N/A)	17.28	J-1198
4707	J-2475	Forest	TRUE	1.00	1,260.75	1.28	1,261.02	20.00	20.00	20.00	20.21	J-3954	(N/A)	17.28	J-1198
3647	J-1989	Forest	TRUE	1.00	1,260.78	1.88	1,261.66	20.00	50.14	20.00	20.00	J-2045	(N/A)	15.74	J-1198
3422	J-1862	Forest	TRUE	1.00	1,260.92	1.08	1,260.99	20.00	20.00	20.00	22.34	J-2596	(N/A)	17.10	J-1198
4960	J-2619	Forest	TRUE	1.00	1,261.16	1.48	1,261.64	20.00	20.01	20.00	20.28	J-1044	(N/A)	17.10	J-1198
7297	J-3954	Forest	TRUE	1.00	1,261.68	1.28	1,261.96	20.00	20.00	20.00	20.20	J-2475	(N/A)	17.28	J-1198
3413	J-1857	Forest	TRUE	1.00	1,262.56	1.68	1,263.24	20.00	20.00	20.00	22.16	J-1856	(N/A)	17.28	J-1198
5876	J-3144	Forest	TRUE	1.00	1,263.72	2.68	1,265.40	20.00	20.01	20.00	20.42	J-2219	(N/A)	17.28	J-1198
3399	J-1849	Forest	TRUE	1.00	1,264.49	1.48	1,264.97	20.00	20.01	20.00	20.01	J-1044	(N/A)	17.10	J-1198
3415	J-1858	Forest	TRUE	1.00	1,264.65	1.48	1,265.13	20.00	36.64	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3416	J-1859	Forest	TRUE	1.00	1,264.66	1.48	1,265.14	20.00	32.13	20.00	20.00	J-1197	(N/A)	12.92	J-1198
1630	J-816	Lakes	TRUE	1.00	1,266.95	1.20	1,267.15	20.00	25.06	20.00	20.13	J-1622	(N/A)	17.28	J-1198
7221	J-3921	Lakes	TRUE	1.00	1,266.97	1.20	1,267.17	20.00	24.94	20.00	20.13	J-1622	(N/A)	17.28	J-1198
6499	J-3508	Lakes	TRUE	1.00	1,267.85	1.20	1,268.05	20.00	25.09	20.00	20.13	J-1622	(N/A)	17.28	J-1198
6500	J-3509	Lakes	TRUE	1.00	1,267.94	1.20	1,268.14	20.00	24.34	20.00	20.12	J-1622	(N/A)	17.28	J-1198
4128	J-2219	Forest	TRUE	1.00	1,268.30	1.48	1,268.78	20.00	20.02	20.00	20.02	J-3144	(N/A)	17.28	J-1198
4706	J-2474	Forest	TRUE	1.00	1,268.50	1.48	1,268.98	20.00	20.44	20.00	20.00	J-3954	(N/A)	17.28	J-1198
3031	J-1630	Forest	TRUE	1.00	1,269.16	1.28	1,269.44	20.00	32.03	20.00	20.00	J-610	(N/A)	17.28	J-1198
3032	J-1631	Forest	TRUE	1.00	1,269.16	1.48	1,269.64	20.00	31.84	20.00	20.00	J-610	(N/A)	17.28	J-1198
4921	J-2596	Forest	TRUE	1.00	1,271.99	1.08	1,272.07	20.00	20.00	20.00	20.31	J-1862	(N/A)	17.10	J-1198
3930	J-2133	Forest	TRUE	1.00	1,272.17	2.28	1,273.45	20.00	20.00	20.00	22.19	J-2919	(N/A)	17.28	J-1198
7814	J-4124	Forest	TRUE	1.00	1,272.69	1.88	1,273.57	20.00	20.00	20.00</					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4000	J-2163	Forest	TRUE	1.00	1,295.26	1.48	1,295.74	20.00	20.21	20.00	20.00	J-2150	(N/A)	17.28	J-1198
5326	J-2829	Forest	TRUE	1.00	1,295.74	1.28	1,296.02	20.00	20.01	20.00	20.22	J-3889	(N/A)	17.28	J-1198
6106	J-3276	Forest	TRUE	1.00	1,295.76	2.68	1,297.45	20.00	32.80	20.00	20.00	J-2840	(N/A)	17.28	J-1198
6107	J-3277	Forest	TRUE	1.00	1,295.76	1.48	1,296.24	20.00	32.64	20.00	20.00	J-2840	(N/A)	17.28	J-1198
2177	J-1158	Forest	TRUE	1.00	1,295.77	1.88	1,296.65	20.00	26.82	20.00	20.00	J-2840	(N/A)	17.28	J-1198
4755	J-2502	Forest	TRUE	1.00	1,295.77	1.48	1,296.25	20.00	26.76	20.00	20.00	J-2840	(N/A)	17.28	J-1198
7514	J-4033	Forest	TRUE	1.00	1,295.77	1.48	1,296.25	20.00	25.19	20.00	20.00	J-2840	(N/A)	17.28	J-1198
6744	J-3653	Forest	TRUE	1.00	1,295.77	2.08	1,296.85	20.00	24.50	20.00	20.00	J-2840	(N/A)	17.28	J-1198
6745	J-3654	Forest	TRUE	1.00	1,295.77	1.28	1,296.05	20.00	23.83	20.00	20.00	J-2840	(N/A)	17.28	J-1198
1914	J-998	Forest	TRUE	1.00	1,296.95	2.28	1,298.23	20.00	27.17	20.00	20.00	J-3585	(N/A)	17.28	J-1198
5108	J-2704	Forest	TRUE	1.00	1,296.95	1.48	1,297.43	20.00	26.25	20.00	20.00	J-3585	(N/A)	17.28	J-1198
6627	J-3585	Forest	TRUE	1.00	1,296.98	1.48	1,297.46	20.00	20.00	20.00	20.19	J-3584	(N/A)	17.28	J-1198
7153	J-3889	Forest	TRUE	1.00	1,297.10	1.08	1,297.17	20.00	20.02	20.00	20.10	J-2828	(N/A)	17.28	J-1198
5325	J-2828	Forest	TRUE	1.00	1,298.14	1.88	1,299.02	20.00	20.01	20.00	20.00	J-3889	(N/A)	17.28	J-1198
4301	J-2283	Forest	TRUE	1.00	1,299.41	1.28	1,299.69	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4905	J-2587	Lakes	TRUE	1.00	1,299.86	1.29	1,300.15	20.00	20.00	20.00	20.22	J-2010	(N/A)	17.28	J-1198
3686	J-2010	Lakes	TRUE	1.00	1,300.06	1.37	1,300.43	20.00	20.00	20.00	20.26	J-2587	(N/A)	17.28	J-1198
6180	J-3320	Forest	TRUE	1.00	1,300.43	1.48	1,300.91	20.00	20.00	20.00	20.16	J-1542	(N/A)	17.28	J-1198
7122	J-3872	Lakes	TRUE	1.00	1,300.47	1.20	1,300.67	20.00	20.57	20.00	20.08	J-2010	(N/A)	17.28	J-1198
4904	J-2586	Lakes	TRUE	1.00	1,300.76	1.20	1,300.95	20.00	20.72	20.00	20.08	J-2010	(N/A)	17.28	J-1198
4054	J-2186	Forest	TRUE	1.00	1,302.12	1.88	1,303.00	20.00	26.14	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4027	J-2175	Forest	TRUE	1.00	1,302.92	2.08	1,304.00	20.00	20.03	20.00	22.97	J-2919	(N/A)	17.28	J-1198
3009	J-1620	Lakes	TRUE	1.00	1,303.01	1.98	1,303.99	20.00	20.03	20.00	22.11	J-1847	(N/A)	17.28	J-1198
2847	J-1542	Forest	TRUE	1.00	1,303.41	1.28	1,303.68	20.00	20.00	20.00	20.35	J-1544	(N/A)	17.28	J-1198
6846	J-3714	Forest	TRUE	1.00	1,303.52	1.48	1,304.00	20.00	20.00	20.00	20.86	J-1976	(N/A)	17.09	J-1198
6486	J-3501	Forest	TRUE	1.00	1,304.76	1.08	1,304.84	20.00	86.05	20.00	20.00	J-3438	(N/A)	17.28	J-1198
1259	J-654	Forest	TRUE	1.00	1,304.77	1.28	1,305.04	20.00	86.54	20.00	20.00	J-3438	(N/A)	17.28	J-1198
4083	J-2201	Forest	TRUE	1.00	1,305.13	1.68	1,305.81	20.00	24.72	20.00	20.00	J-2200	(N/A)	17.28	J-1198
5685	J-3035	Forest	TRUE	1.00	1,305.13	2.08	1,306.21	20.00	24.58	20.00	20.00	J-2200	(N/A)	17.28	J-1198
2808	J-1520	Forest	TRUE	1.00	1,305.65	2.28	1,306.93	20.00	20.02	20.00	20.75	J-2567	(N/A)	17.28	J-1198
3626	J-1977	Forest	TRUE	1.00	1,308.70	1.88	1,309.58	20.00	20.00	20.00	20.22	J-3714	(N/A)	17.09	J-1198
3061	J-1649	Forest	TRUE	1.00	1,308.76	1.08	1,308.84	20.00	25.63	20.00	20.01	J-2150	(N/A)	17.28	J-1198
3062	J-1650	Forest	TRUE	1.00	1,308.82	1.08	1,308.89	20.00	25.27	20.00	20.01	J-2150	(N/A)	17.28	J-1198
5452	J-2901	Forest	TRUE	1.00	1,308.85	1.08	1,308.93	20.00	25.00	20.00	20.01	J-2150	(N/A)	17.28	J-1198
3464	J-1886	Forest	TRUE	1.00	1,309.16	1.48	1,309.64	20.00	29.75	20.00	20.00	J-2150	(N/A)	17.28	J-1198
1750	J-893	Forest	TRUE	1.00	1,309.94	1.48	1,310.42	20.00	20.00	20.00	20.66	J-892	(N/A)	17.28	J-1198
2850	J-1544	Forest	TRUE	1.00	1,310.06	1.88	1,310.94	20.00	20.00	20.00	21.44	J-1542	(N/A)	17.28	J-1198
3625	J-1976	Forest	TRUE	1.00	1,310.29	1.08	1,310.37	20.00	20.19	20.00	20.06	J-3714	(N/A)	17.09	J-1198
5212	J-2761	Forest	TRUE	1.00	1,310.44	1.68	1,311.12	20.00	29.90	20.00	20.00	J-2324	(N/A)	17.28	J-1198
5213	J-2762	Forest	TRUE	1.00	1,310.44	1.48	1,310.92	20.00	29.46	20.00	20.00	J-2324	(N/A)	17.28	J-1198
4073	J-2196	Forest	TRUE	1.00	1,310.50	1.48	1,310.98	20.00	21.60	20.00	20.00	J-1774	(N/A)	17.28	J-1198
4757	J-2503	Forest	TRUE	1.00	1,310.50	1.68	1,311.18	20.00	21.57	20.00	20.00	J-1774	(N/A)	17.28	J-1198
4168	J-2237	Forest	TRUE	1.00	1,310.88	2.48	1,312.36	20.00	20.09	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4872	J-2567	Forest	TRUE	1.00	1,311.00	1.08	1,311.08	20.00	20.00	20.00	20.43	J-1795	(N/A)	17.28	J-1198
6064	J-3251	Lakes	TRUE	1.00	1,311.80	1.20	1,312.00	20.00	20.00	20.00	20.29	J-3252	(N/A)	17.28	J-1198
4110	J-2211	Forest	TRUE	1.00	1,312.47	1.68	1,313.15	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6065	J-3252	Lakes	TRUE	1.00	1,313.34	1.29	1,313.63	20.00	20.00	20.00	20.21	J-3251	(N/A)	17.28	J-1198
3299	J-1795	Forest	TRUE	1.00	1,313.91	1.88	1,314.79	20.00	20.19	20.00	20.05	J-2567	(N/A)	17.28	J-1198
3395	J-1847	Lakes	TRUE	1.00	1,314.50	1.46	1,314.96	20.00	20.00	20.00	20.04	J-3252	(N/A)	17.28	J-1198
4023	J-2173	Forest	TRUE	1.00	1,316.83	2.48	1,318.31	20.00	36.56	20.00	20.01	J-2324	(N/A)	17.28	J-1198
4575	J-2401	Forest	TRUE	1.00	1,316.84	1.08	1,316.92	20.00	36.86	20.00	20.01	J-2324	(N/A)	17.28	J-1198
7135	J-3879	Forest	TRUE	1.00	1,316.85	1.08	1,316.92	20.00	36.73	20.00	20.01	J-2324	(N/A)	17.28	J-1198
4576	J-2402	Forest	TRUE	1.00	1,316.85	1.48	1,317.33	20.00	36.70	20.00	20.01	J-2324	(N/A)	17.28	J-1198
6923	J-3760	Forest	TRUE	1.00	1,318.17	1.88	1,319.05	20.00	20.00	20.00	21.25	J-2312	(N/A)	17.28	J-1198
5984	J-3204	Forest	TRUE	1.00	1,319.02	1.08	1,319.10	20.00	20.00	20.00	20.57	J-3203	(N/A)	17.28	J-1198
5007	J-2646	Lakes	TRUE	1.00	1,319.23	1.20	1,319.43	20.00	20.02	20.00	20.37	J-2036	(N/A)	17.28	J-1198
4219	J-2255	Forest	TRUE	1.00	1,319.44	1.68	1,320.12	20.00	20.00	20.00	20.63	J-1533	(N/A)	17.28	J-1198
3807	J-2073	Forest	TRUE	1.00	1,320.42	1.88	1,321.30	20.00	26.15	20.00	20.00	J-2072	(N/A)	17.28	J-1198
7058	J-3836	Forest	TRUE	1.00	1,320.42	1.28	1,320.70	20.00	23.53	20.00	20.00	J-2072	(N/A)	17.28	J-1198
3731	J-2036	Lakes	TRUE	1.00	1,320.82	1.20	1,321.02	20.00	20.05	20.00	20.00	J-2646	(N/A)	17.28	J-1198
2831	J-1533	Forest	TRUE	1.00	1,323.13	1.48	1,323.61	20.00	20.29	20.00	20.05	J-2255	(N/A)	17.28	J-1198
8343	J-4173	Forest	TRUE	1.00	1,324.18	1.68	1,324.86	20.00	20.03	20.00	21.25	J-3174	(N/A)	17.28	J-1198
6302	J-3393	Forest	TRUE	1.00	1,326.22	1.68	1,326.90	20.00	23.73	20.00	20.01	J-3174	(N/A)	17.28	J-1198
6303	J-3394	Forest	TRUE	1.00	1,326.30	1.48	1,326.77	20.00	23.10	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4396	J-2312	Forest	TRUE	1.00	1,327.06	2.28	1,328.34	20.00	20.44	20.00	20.04	J-3760	(N/A)	17.28	J-1198
7479	J-4021	Forest	TRUE	1.00	1,329.90	1.08	1,329.98	20.00	27.55	20.00	20.00	J-3090	(N/A)	17.09	J-1198
1837	J-948	Forest	TRUE	1.00	1,329.90	1.28	1,330.18	20.00	33.07	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6517	J-3519	Forest	TRUE	1.00	1,329.90	1.48	1,330.38	20.00	26.70	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6678	J-3615	Forest	TRUE	1.00	1,329.90	1.68	1,330.58	20.00	29.83	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6516	J-3518	Forest	TRUE	1.00	1,329.90	1.48	1,330.38	20.00	27.57	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6677	J-3614	Forest	TRUE	1.00	1,329.90	1.88	1,330.78	20.00	29.28	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6662	J-3605	Forest	TRUE	1.00	1,329.90	1.88	1,330.78	20.00	24.57	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6663	J-3606	Forest	TRUE	1.00	1,329.90	1.88	1,330.78	20.00	25.46	20.00	20.00	J-3090	(N/A)	17.09	J-1198
6163	J-3310	Forest	TRUE	1.00	1,330.79	1.08	1,330.86	20.00	46.57	20.00	20.00	J-1197	(N/A)	12.92	J-1198
6164	J-3311	Forest	TRUE	1.00	1,330.80	1.08	1,330.87	20.00	45.50	20.00	20.00	J-1197	(N/A)	12.92	J-1198
4104	J-2209	Forest	TRUE	1.00	1,331.37	1.28	1,331.65	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5983	J-3203	Forest	TRUE	1.00	1,334.61	1.48	1,335.09	20.00	20.08	20.00	20.01	J-3204	(N/A)	17.28	J-1198
4328	J-2289	Forest	TRUE	1.00	1,335.82	2.28	1,337.10	20.00	20.01	20					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7491	J-4025	Forest	TRUE	1.00	1,350.21	1.68	1,350.89	20.00	23.23	20.00	20.00	J-3063	(N/A)	17.28	J-1198
7386	J-3988	Forest	TRUE	1.00	1,350.95	1.48	1,351.43	20.00	44.09	20.00	20.01	J-3425	(N/A)	17.28	J-1198
2667	J-1436	Forest	TRUE	1.00	1,350.96	1.08	1,351.04	20.00	43.40	20.00	20.01	J-3425	(N/A)	17.28	J-1198
6723	J-3641	Forest	TRUE	1.00	1,350.97	1.48	1,351.44	20.00	42.72	20.00	20.00	J-3425	(N/A)	17.28	J-1198
3787	J-2063	Forest	TRUE	1.00	1,351.32	1.08	1,351.39	20.00	20.00	20.00	21.54	J-2919	(N/A)	17.28	J-1198
8297	J-4172	Forest	TRUE	1.00	1,353.32	2.28	1,354.60	20.00	20.00	20.00	21.42	J-3204	(N/A)	17.28	J-1198
3860	J-2098	Forest	TRUE	1.00	1,353.89	1.88	1,354.77	20.00	43.26	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5414	J-2880	Forest	TRUE	1.00	1,353.89	2.08	1,354.97	20.00	42.87	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2938	J-1588	Forest	TRUE	1.00	1,353.99	2.48	1,355.47	20.00	25.77	20.00	20.00	J-1206	(N/A)	15.84	J-1198
5619	J-2996	Forest	TRUE	1.00	1,354.38	1.08	1,354.46	20.00	20.02	20.00	20.32	J-1363	(N/A)	17.28	J-1198
6124	J-3287	Lakes	TRUE	1.00	1,354.49	1.20	1,354.69	20.00	23.37	20.00	20.00	J-2010	(N/A)	17.28	J-1198
6125	J-3288	Lakes	TRUE	1.00	1,354.49	1.20	1,354.69	20.00	23.26	20.00	20.00	J-2010	(N/A)	17.28	J-1198
8457	J-4180	Forest	TRUE	1.00	1,354.69	1.08	1,354.77	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.28	J-1198
8459	J-4181	Forest	TRUE	1.00	1,354.69	1.08	1,354.77	20.00	20.00	20.00	20.00	J-4182	(N/A)	17.28	J-1198
8461	J-4182	Forest	TRUE	1.00	1,354.69	1.08	1,354.77	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.28	J-1198
2348	J-1259	Forest	TRUE	1.00	1,354.69	1.08	1,354.77	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.28	J-1198
8471	J-4187	Forest	TRUE	1.00	1,354.69	1.08	1,354.77	20.00	20.00	20.00	20.00	J-4181	(N/A)	17.28	J-1198
5092	J-2695	Forest	TRUE	1.00	1,355.49	1.48	1,355.97	20.00	20.00	20.00	20.66	J-1768	(N/A)	17.28	J-1198
2540	J-1363	Forest	TRUE	1.00	1,357.07	1.28	1,357.35	20.00	20.02	20.00	20.19	J-2996	(N/A)	17.28	J-1198
7819	J-4125	Forest	TRUE	1.00	1,358.34	2.28	1,359.63	20.00	23.67	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4941	J-2608	Forest	TRUE	1.00	1,358.83	1.88	1,359.71	20.00	25.28	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3855	J-2096	Forest	TRUE	1.00	1,359.24	1.88	1,360.12	20.00	25.58	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7254	J-3937	Forest	TRUE	1.00	1,359.80	1.08	1,359.88	20.00	23.38	20.00	20.00	J-3063	(N/A)	17.28	J-1198
7255	J-3938	Forest	TRUE	1.00	1,359.80	1.08	1,359.88	20.00	23.38	20.00	20.00	J-3063	(N/A)	17.28	J-1198
524	J-297	Forest	TRUE	1.00	1,359.80	1.48	1,360.28	20.00	35.45	20.00	20.01	J-941	(N/A)	17.28	J-1198
523	J-296	Forest	TRUE	1.00	1,360.75	1.48	1,361.23	20.00	32.01	20.00	20.01	J-941	(N/A)	17.28	J-1198
7060	J-3837	Forest	TRUE	1.00	1,362.70	1.68	1,363.38	20.00	20.01	20.00	21.67	J-2208	(N/A)	17.28	J-1198
3103	J-1676	Forest	TRUE	1.00	1,362.72	1.68	1,363.40	20.00	49.35	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3102	J-1675	Forest	TRUE	1.00	1,362.72	1.08	1,362.80	20.00	49.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3533	J-1926	Forest	TRUE	1.00	1,362.82	1.48	1,363.30	20.00	25.62	20.00	20.01	J-3174	(N/A)	17.28	J-1198
3733	J-2037	Forest	TRUE	1.00	1,362.92	2.08	1,364.00	20.00	20.00	20.00	23.54	J-2919	(N/A)	17.28	J-1198
3532	J-1925	Forest	TRUE	1.00	1,363.15	1.88	1,364.03	20.00	22.13	20.00	20.00	J-3174	(N/A)	17.28	J-1198
6099	J-3272	Forest	TRUE	1.00	1,363.16	1.08	1,363.24	20.00	21.85	20.00	20.00	J-3174	(N/A)	17.28	J-1198
3255	J-1769	Forest	TRUE	1.00	1,363.23	1.48	1,363.71	20.00	20.00	20.00	20.06	J-2695	(N/A)	17.28	J-1198
3254	J-1768	Forest	TRUE	1.00	1,364.49	1.48	1,364.96	20.00	20.31	20.00	20.02	J-2695	(N/A)	17.28	J-1198
4061	J-2189	Forest	TRUE	1.00	1,366.36	1.48	1,366.84	20.00	27.89	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4148	J-2228	Forest	TRUE	1.00	1,366.40	2.08	1,367.48	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3146	J-1703	Forest	TRUE	1.00	1,367.74	1.48	1,368.22	20.00	20.00	20.00	20.42	J-2758	(N/A)	17.28	J-1198
6374	J-3436	Forest	TRUE	1.00	1,368.09	1.68	1,368.77	20.00	34.50	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5206	J-2758	Forest	TRUE	1.00	1,368.22	1.28	1,368.49	20.00	20.00	20.00	20.47	J-1703	(N/A)	17.28	J-1198
6375	J-3437	Forest	TRUE	1.00	1,368.92	1.28	1,369.20	20.00	32.91	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3856	J-2097	Forest	TRUE	1.00	1,369.61	2.28	1,370.90	20.00	35.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6780	J-3675	Forest	TRUE	1.00	1,369.76	2.88	1,371.64	20.00	20.00	20.00	20.05	J-3174	(N/A)	17.28	J-1198
7120	J-3871	Forest	TRUE	1.00	1,369.83	1.08	1,369.90	20.00	20.25	20.00	20.03	J-858	(N/A)	17.28	J-1198
4479	J-2346	Forest	TRUE	1.00	1,369.86	1.88	1,370.74	20.00	20.27	20.00	20.03	J-858	(N/A)	17.28	J-1198
4478	J-2345	Forest	TRUE	1.00	1,369.89	1.88	1,370.78	20.00	20.30	20.00	20.02	J-858	(N/A)	17.28	J-1198
1777	J-910	Forest	TRUE	1.00	1,370.20	1.88	1,371.08	20.00	24.76	20.00	20.00	J-858	(N/A)	17.28	J-1198
3145	J-1702	Forest	TRUE	1.00	1,371.09	1.08	1,371.17	20.00	20.33	20.00	20.07	J-2758	(N/A)	17.28	J-1198
710	J-408	Forest	TRUE	1.00	1,371.70	1.68	1,372.38	20.00	32.84	20.00	20.01	J-941	(N/A)	17.28	J-1198
5202	J-2756	Forest	TRUE	1.00	1,371.71	1.88	1,372.59	20.00	20.26	20.00	20.04	J-2755	(N/A)	17.28	J-1198
5599	J-2985	Forest	TRUE	1.00	1,371.72	1.88	1,372.61	20.00	24.08	20.00	20.00	J-3174	(N/A)	17.28	J-1198
5598	J-2984	Forest	TRUE	1.00	1,371.73	1.68	1,372.41	20.00	24.56	20.00	20.00	J-3174	(N/A)	17.28	J-1198
3157	J-1709	Forest	TRUE	1.00	1,371.81	1.68	1,372.48	20.00	20.84	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7661	J-4081	Forest	TRUE	1.00	1,371.81	3.29	1,374.09	20.00	22.31	20.00	20.00	J-3174	(N/A)	17.28	J-1198
3980	J-2154	Forest	TRUE	1.00	1,371.81	1.48	1,372.28	20.00	21.44	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7266	J-3942	Forest	TRUE	1.00	1,371.81	1.68	1,372.48	20.00	21.23	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4866	J-2564	Forest	TRUE	1.00	1,371.81	1.48	1,372.28	20.00	20.43	20.00	20.00	J-3174	(N/A)	17.28	J-1198
3929	J-2132	Forest	TRUE	1.00	1,371.81	2.48	1,373.29	20.00	24.55	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4551	J-2387	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	21.48	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7197	J-3909	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	21.78	20.00	20.00	J-3174	(N/A)	17.28	J-1198
3156	J-1708	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	21.39	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7213	J-3916	Forest	TRUE	1.00	1,371.81	1.28	1,372.08	20.00	21.45	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7543	J-4045	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	22.02	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7196	J-3908	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	21.75	20.00	20.00	J-3174	(N/A)	17.28	J-1198
6779	J-3674	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	20.80	20.00	20.00	J-3174	(N/A)	17.28	J-1198
4552	J-2388	Forest	TRUE	1.00	1,371.81	1.08	1,371.88	20.00	21.20	20.00	20.00	J-3174	(N/A)	17.28	J-1198
7016	J-3813	Forest	TRUE	1.00	1,371.88	1.08	1,371.96	20.00	107.95	20.00	20.04	J-3438	(N/A)	17.28	J-1198
7861	J-4133	Forest	TRUE	1.00	1,372.08	2.08	1,373.16	20.00	28.24	20.00	20.00	J-2766	(N/A)	17.28	J-1198
5201	J-2755	Forest	TRUE	1.00	1,372.10	1.88	1,372.98	20.00	20.01	20.00	20.60	J-2756	(N/A)	17.28	J-1198
1212	J-635	Forest	TRUE	1.00	1,372.26	1.08	1,372.34	20.00	111.76	20.00	20.02	J-3438	(N/A)	17.28	J-1198
4093	J-2205	Forest	TRUE	1.00	1,372.74	1.68	1,373.42	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3219	J-1746	Forest	TRUE	1.00	1,373.07	1.28	1,373.35	20.00	25.98	20.00	20.00	J-1206	(N/A)	15.80	J-1198
4496	J-2355	Forest	TRUE	1.00	1,373.07	1.08	1,373.15	20.00	25.63	20.00	20.00	J-1206	(N/A)	15.80	J-1198
4382	J-2307	Forest	TRUE	1.00	1,373.11	2.08	1,374.19	20.00	34.44	20.00	20.01	J-2324	(N/A)	17.28	J-1198
2810	J-1521	Forest	TRUE	1.00	1,375.09	1.88	1,375.97	20.00	20.00	20.00	21.18	J-2919	(N/A)	17.28	J-1198
444	J-247	Forest	TRUE	1.00	1,375.09	1.08	1,375.17	20.00	36.30	20.00	20.01	J-941	(N/A)	17.28	J-1198
6024	J-3226	Forest	TRUE	1.00	1,375.13	1.88	1,376.01	20.00	35.65	20.00	20.01	J-941	(N/A)	17.28	J-1198
3680	J-2007	Forest	TRUE	1.00	1,375.22	1.48	1,375.70	20.00	21.85	20.00	20.0				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6104	J-3275	Forest	TRUE	1.00	1,386.29	1.48	1,386.77	20.00	24.70	20.00	20.01	J-3174	(N/A)	17.28	J-1198
2575	J-1383	Forest	TRUE	1.00	1,386.30	4.29	1,389.59	20.00	20.86	20.00	20.00	J-1382	(N/A)	17.28	J-1198
7325	J-3964	Forest	TRUE	1.00	1,386.37	1.08	1,386.44	20.00	20.44	20.00	20.00	J-2280	(N/A)	17.28	J-1198
6273	J-3376	Lakes	TRUE	1.00	1,387.13	1.37	1,387.50	20.00	20.91	20.00	20.09	J-3377	(N/A)	17.28	J-1198
6274	J-3377	Lakes	TRUE	1.00	1,387.62	2.52	1,389.14	20.00	20.00	20.00	20.46	J-2323	(N/A)	17.28	J-1198
1016	J-554	Forest	TRUE	1.00	1,388.02	1.08	1,388.09	20.00	32.96	20.00	20.01	J-941	(N/A)	17.28	J-1198
5286	J-2805	Forest	TRUE	1.00	1,388.07	1.28	1,388.35	20.00	32.65	20.00	20.01	J-941	(N/A)	17.28	J-1198
3019	J-1623	Forest	TRUE	1.00	1,388.27	1.08	1,388.34	20.00	20.43	20.00	20.02	J-3953	(N/A)	17.28	J-1198
8487	J-4195	Forest	TRUE	1.00	1,388.40	2.68	1,390.08	20.00	49.78	20.00	20.00	J-941	(N/A)	17.28	J-1198
8488	J-4196	Forest	TRUE	1.00	1,388.40	2.08	1,389.48	20.00	49.19	20.00	20.00	J-941	(N/A)	17.28	J-1198
872	J-490	Forest	TRUE	1.00	1,388.65	1.08	1,388.72	20.00	59.63	20.00	20.00	J-941	(N/A)	17.28	J-1198
5342	J-2838	Forest	TRUE	1.00	1,388.68	1.08	1,388.76	20.00	20.09	20.00	20.05	J-2839	(N/A)	17.28	J-1198
1958	J-1027	Forest	TRUE	1.00	1,390.04	1.08	1,390.12	20.00	21.61	20.00	20.10	J-1028	(N/A)	17.07	J-1198
4268	J-2271	Forest	TRUE	1.00	1,390.71	2.68	1,392.40	20.00	41.31	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3637	J-1983	Lakes	TRUE	1.00	1,391.52	1.29	1,391.81	20.00	50.42	20.00	20.08	J-2323	(N/A)	17.28	J-1198
6073	J-3257	Lakes	TRUE	1.00	1,391.54	1.20	1,391.74	20.00	57.03	20.00	20.08	J-2323	(N/A)	17.28	J-1198
712	J-409	Lakes	TRUE	1.00	1,391.55	1.20	1,391.75	20.00	48.47	20.00	20.08	J-2323	(N/A)	17.28	J-1198
6072	J-3256	Lakes	TRUE	1.00	1,391.56	1.20	1,391.76	20.00	56.77	20.00	20.08	J-2323	(N/A)	17.28	J-1198
6277	J-3379	Lakes	TRUE	1.00	1,391.74	1.20	1,391.94	20.00	38.38	20.00	20.06	J-2323	(N/A)	17.28	J-1198
6276	J-3378	Lakes	TRUE	1.00	1,391.79	1.20	1,391.99	20.00	37.67	20.00	20.05	J-2323	(N/A)	17.28	J-1198
7243	J-3931	Lakes	TRUE	1.00	1,391.90	1.37	1,392.27	20.00	30.82	20.00	20.04	J-2323	(N/A)	17.28	J-1198
7244	J-3932	Lakes	TRUE	1.00	1,391.90	1.20	1,392.10	20.00	30.82	20.00	20.04	J-2323	(N/A)	17.28	J-1198
713	J-410	Lakes	TRUE	1.00	1,391.92	1.20	1,392.12	20.00	53.15	20.00	20.04	J-2323	(N/A)	17.28	J-1198
5035	J-2663	Lakes	TRUE	1.00	1,391.92	1.20	1,392.12	20.00	52.84	20.00	20.04	J-2323	(N/A)	17.28	J-1198
5773	J-3086	Forest	TRUE	1.00	1,392.11	1.28	1,392.39	20.00	20.00	20.00	20.35	J-3087	(N/A)	17.28	J-1198
6010	J-3218	Forest	TRUE	1.00	1,392.22	1.88	1,393.10	20.00	21.50	20.00	20.00	J-3953	(N/A)	17.28	J-1198
6011	J-3219	Forest	TRUE	1.00	1,392.22	1.08	1,392.30	20.00	21.14	20.00	20.00	J-3953	(N/A)	17.28	J-1198
2473	J-1327	Lakes	TRUE	1.00	1,392.32	1.63	1,392.95	20.00	42.02	20.00	20.00	J-2323	(N/A)	17.28	J-1198
4733	J-2490	Lakes	TRUE	1.00	1,392.33	1.20	1,392.53	20.00	41.56	20.00	20.00	J-2323	(N/A)	17.28	J-1198
1313	J-679	Lakes	TRUE	1.00	1,392.33	1.20	1,392.53	20.00	68.57	20.00	20.00	J-2323	(N/A)	17.28	J-1198
5569	J-2968	Lakes	TRUE	1.00	1,392.33	1.20	1,392.53	20.00	67.96	20.00	20.00	J-2323	(N/A)	17.28	J-1198
7597	J-4060	Lakes	TRUE	1.00	1,392.34	1.20	1,392.54	20.00	66.50	20.00	20.00	J-2323	(N/A)	17.28	J-1198
5257	J-2789	Lakes	TRUE	1.00	1,392.34	1.29	1,392.62	20.00	39.72	20.00	20.00	J-2323	(N/A)	17.28	J-1198
5256	J-2788	Lakes	TRUE	1.00	1,392.34	1.20	1,392.54	20.00	39.42	20.00	20.00	J-2323	(N/A)	17.28	J-1198
1312	J-678	Lakes	TRUE	1.00	1,392.34	1.29	1,392.62	20.00	64.02	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6267	J-3373	Lakes	TRUE	1.00	1,392.34	1.20	1,392.54	20.00	63.51	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6070	J-3255	Lakes	TRUE	1.00	1,392.34	1.20	1,392.54	20.00	25.90	20.00	20.00	J-2323	(N/A)	17.28	J-1198
2947	J-1593	Lakes	TRUE	1.00	1,392.34	1.20	1,392.54	20.00	25.88	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6069	J-3254	Lakes	TRUE	1.00	1,392.34	1.46	1,392.80	20.00	25.28	20.00	20.00	J-2323	(N/A)	17.28	J-1198
3006	J-1619	Lakes	TRUE	1.00	1,392.34	1.46	1,392.80	20.00	25.24	20.00	20.00	J-2323	(N/A)	17.28	J-1198
4717	J-2480	Lakes	TRUE	1.00	1,392.34	1.29	1,392.63	20.00	27.93	20.00	20.00	J-2323	(N/A)	17.28	J-1198
4718	J-2481	Lakes	TRUE	1.00	1,392.34	1.29	1,392.63	20.00	28.29	20.00	20.00	J-2323	(N/A)	17.28	J-1198
3478	J-1895	Forest	TRUE	1.00	1,392.38	1.88	1,393.26	20.00	25.87	20.00	20.00	J-2274	(N/A)	17.28	J-1198
3325	J-1809	Forest	TRUE	1.00	1,392.39	1.08	1,392.47	20.00	21.99	20.00	20.00	J-2274	(N/A)	17.28	J-1198
4777	J-2514	Forest	TRUE	1.00	1,392.39	1.08	1,392.47	20.00	21.62	20.00	20.00	J-2274	(N/A)	17.28	J-1198
3324	J-1808	Forest	TRUE	1.00	1,392.40	1.48	1,392.87	20.00	20.56	20.00	20.00	J-2274	(N/A)	17.28	J-1198
607	J-347	Forest	TRUE	1.00	1,394.07	1.28	1,394.34	20.00	58.13	20.00	20.00	J-941	(N/A)	17.28	J-1198
4957	J-2617	Forest	TRUE	1.00	1,394.13	1.28	1,394.41	20.00	31.92	20.00	20.00	J-3063	(N/A)	17.28	J-1198
4958	J-2618	Forest	TRUE	1.00	1,394.14	1.28	1,394.41	20.00	31.33	20.00	20.00	J-3063	(N/A)	17.28	J-1198
3367	J-1832	Forest	TRUE	1.00	1,394.81	1.08	1,394.89	20.00	29.75	20.00	20.00	J-610	(N/A)	17.28	J-1198
2437	J-1306	Forest	TRUE	1.00	1,394.83	1.08	1,394.91	20.00	26.85	20.00	20.00	J-610	(N/A)	17.28	J-1198
5088	J-2693	Forest	TRUE	1.00	1,394.84	1.08	1,394.91	20.00	26.63	20.00	20.00	J-610	(N/A)	17.28	J-1198
2438	J-1307	Forest	TRUE	1.00	1,394.86	1.28	1,395.13	20.00	22.99	20.00	20.00	J-610	(N/A)	17.28	J-1198
5021	J-2654	Forest	TRUE	1.00	1,395.15	1.48	1,395.63	20.00	38.93	20.00	20.01	J-2324	(N/A)	17.28	J-1198
5022	J-2655	Forest	TRUE	1.00	1,395.15	1.68	1,395.83	20.00	38.83	20.00	20.01	J-2324	(N/A)	17.28	J-1198
5540	J-2951	Forest	TRUE	1.00	1,395.20	2.28	1,396.48	20.00	20.00	20.00	20.60	J-2107	(N/A)	17.28	J-1198
2169	J-1153	Forest	TRUE	1.00	1,396.01	1.48	1,396.48	20.00	20.13	20.00	20.05	J-3087	(N/A)	17.28	J-1198
608	J-348	Forest	TRUE	1.00	1,396.16	1.08	1,396.24	20.00	56.78	20.00	20.00	J-941	(N/A)	17.28	J-1198
7860	J-4132	Forest	TRUE	1.00	1,396.43	1.88	1,397.31	20.00	23.73	20.00	20.00	J-941	(N/A)	17.28	J-1198
5385	J-2864	Forest	TRUE	1.00	1,396.44	1.88	1,397.32	20.00	37.69	20.00	20.00	J-941	(N/A)	17.28	J-1198
5386	J-2865	Forest	TRUE	1.00	1,396.44	1.88	1,397.32	20.00	38.37	20.00	20.00	J-941	(N/A)	17.28	J-1198
5774	J-3087	Forest	TRUE	1.00	1,396.61	1.48	1,397.08	20.00	20.00	20.00	20.14	J-3086	(N/A)	17.28	J-1198
4964	J-2621	Forest	TRUE	1.00	1,397.78	1.28	1,398.06	20.00	21.65	20.00	20.00	J-2840	(N/A)	17.28	J-1198
4965	J-2622	Forest	TRUE	1.00	1,397.78	1.48	1,398.26	20.00	21.80	20.00	20.00	J-2840	(N/A)	17.28	J-1198
4930	J-2601	Forest	TRUE	1.00	1,398.14	1.08	1,398.22	20.00	21.88	20.00	20.00	J-2280	(N/A)	17.28	J-1198
4931	J-2602	Forest	TRUE	1.00	1,398.14	1.08	1,398.22	20.00	21.46	20.00	20.00	J-2280	(N/A)	17.28	J-1198
6248	J-3362	Forest	TRUE	1.00	1,400.51	1.28	1,400.79	20.00	20.00	20.00	21.35	J-3363	(N/A)	17.28	J-1198
7576	J-4054	Forest	TRUE	1.00	1,401.59	1.08	1,401.67	20.00	21.25	20.00	20.00	J-3204	(N/A)	17.28	J-1198
558	J-318	Forest	TRUE	1.00	1,401.87	1.08	1,401.95	20.00	47.42	20.00	20.00	J-941	(N/A)	17.28	J-1198
3878	J-2107	Forest	TRUE	1.00	1,402.84	2.08	1,403.92	20.00	20.18	20.00	20.02	J-2951	(N/A)	17.28	J-1198
559	J-319	Forest	TRUE	1.00	1,402.88	1.08	1,402.96	20.00	45.29	20.00	20.01	J-941	(N/A)	17.28	J-1198
5033	J-2662	Forest	TRUE	1.00	1,404.22	2.08	1,405.30	20.00	53.49	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5032	J-2661	Forest	TRUE	1.00	1,404.22	1.68	1,404.90	20.00	53.52	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5504	J-2930	Forest	TRUE	1.00	1,405.08	2.48	1,406.56	20.00	20.00	20.00	20.53	J-1672	(N/A)	17.28	J-1198
3097	J-1672	Forest	TRUE	1.00	1,405.77	1.48	1,406.25	20.00	20.00	20.00	20.34	J-2930	(N/A)	17.28	J-1198
3096	J-1671	Forest	TRUE	1.00	1,407.44	1.48	1,407.92	20.00	20.23	20.00	20.10	J-2930	(N/A)	17.28	J-1198
1211	J-634	Forest	TRUE	1.00	1,407.48	1.08	1,407.56	20.00	96.97	20.00	20.04	J-3438	(N/A)	17.28	J-1198
5858	J-3134	Forest	TRUE	1.00	1,407.50	1.48	1,407.98	20.00	96.79	20.00	20.04	J-3438	(N		

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4508	J-2362	Forest	TRUE	1.00	1,413.75	2.68	1,415.44	20.00	25.57	20.00	20.00	J-858	(N/A)	17.28	J-1198
4509	J-2363	Forest	TRUE	1.00	1,413.75	3.49	1,416.24	20.00	25.26	20.00	20.00	J-858	(N/A)	17.28	J-1198
2729	J-1473	Forest	TRUE	1.00	1,414.46	2.08	1,415.54	20.00	30.24	20.00	20.00	J-3362	(N/A)	17.28	J-1198
6358	J-3427	Forest	TRUE	1.00	1,414.47	1.88	1,415.35	20.00	29.18	20.00	20.00	J-3362	(N/A)	17.28	J-1198
6573	J-3553	Forest	TRUE	1.00	1,414.48	2.68	1,416.16	20.00	26.85	20.00	20.00	J-3362	(N/A)	17.28	J-1198
6572	J-3552	Forest	TRUE	1.00	1,414.49	1.08	1,414.56	20.00	26.12	20.00	20.00	J-3362	(N/A)	17.28	J-1198
6249	J-3363	Forest	TRUE	1.00	1,414.53	1.68	1,415.21	20.00	20.74	20.00	20.00	J-3362	(N/A)	17.28	J-1198
3984	J-2156	Forest	TRUE	1.00	1,414.74	2.88	1,416.63	20.00	20.00	20.00	20.52	J-2919	(N/A)	17.28	J-1198
6559	J-3544	Forest	TRUE	1.00	1,415.61	3.89	1,418.50	20.00	22.83	20.00	20.00	J-1382	(N/A)	17.28	J-1198
6560	J-3545	Forest	TRUE	1.00	1,415.62	1.28	1,415.90	20.00	22.17	20.00	20.00	J-1382	(N/A)	17.28	J-1198
2743	J-1482	Forest	TRUE	1.00	1,416.63	2.48	1,418.11	20.00	20.24	20.00	20.04	J-2698	(N/A)	17.28	J-1198
4130	J-2220	Forest	TRUE	1.00	1,416.90	1.88	1,417.78	20.00	20.02	20.00	20.07	J-3225	(N/A)	17.28	J-1198
3289	J-1789	Forest	TRUE	1.00	1,417.50	1.48	1,417.98	20.00	20.00	20.00	20.04	J-1790	(N/A)	17.28	J-1198
620	J-355	Forest	TRUE	1.00	1,418.41	1.08	1,418.49	20.00	30.11	20.00	20.01	J-941	(N/A)	17.28	J-1198
5709	J-3049	Forest	TRUE	1.00	1,418.50	1.08	1,418.57	20.00	29.60	20.00	20.01	J-941	(N/A)	17.28	J-1198
3907	J-2121	Forest	TRUE	1.00	1,418.99	2.28	1,420.27	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4118	J-2215	Forest	TRUE	1.00	1,419.31	2.48	1,420.79	20.00	47.46	20.00	20.00	J-3200	(N/A)	17.28	J-1198
7644	J-4077	Forest	TRUE	1.00	1,420.98	1.28	1,421.26	20.00	20.03	20.00	21.23	J-1467	(N/A)	17.28	J-1198
5632	J-3004	Forest	TRUE	1.00	1,421.03	1.08	1,421.11	20.00	20.01	20.00	20.58	J-1483	(N/A)	17.28	J-1198
6114	J-3281	Lakes	TRUE	1.00	1,422.28	1.20	1,422.48	20.00	20.00	20.00	20.14	J-2010	(N/A)	17.28	J-1198
6113	J-3280	Lakes	TRUE	1.00	1,422.69	1.20	1,422.89	20.00	20.47	20.00	20.09	J-2010	(N/A)	17.28	J-1198
5717	J-3054	Forest	TRUE	1.00	1,423.40	2.08	1,424.48	20.00	20.02	20.00	20.68	J-3053	(N/A)	17.28	J-1198
5571	J-2969	Forest	TRUE	1.00	1,423.69	1.08	1,423.76	20.00	25.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
879	J-494	Forest	TRUE	1.00	1,423.69	1.88	1,424.57	20.00	25.95	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2033	J-1075	Forest	TRUE	1.00	1,424.28	2.08	1,425.36	20.00	20.74	20.00	20.00	J-3204	(N/A)	17.28	J-1198
7878	J-4137	Forest	TRUE	1.00	1,424.34	1.88	1,425.22	20.00	20.01	20.00	21.38	J-1370	(N/A)	17.28	J-1198
2889	J-1565	Forest	TRUE	1.00	1,425.06	2.08	1,426.14	20.00	20.36	20.00	20.00	J-3362	(N/A)	17.28	J-1198
7194	J-3907	Lakes	TRUE	1.00	1,425.29	1.20	1,425.49	20.00	20.00	20.00	20.13	J-3906	(N/A)	17.28	J-1198
7193	J-3906	Lakes	TRUE	1.00	1,426.41	1.20	1,426.61	20.00	20.00	20.00	20.01	J-3907	(N/A)	17.28	J-1198
6205	J-3335	Lakes	TRUE	1.00	1,426.42	1.20	1,426.62	20.00	26.06	20.00	20.00	J-3906	(N/A)	17.28	J-1198
6206	J-3336	Lakes	TRUE	1.00	1,426.42	1.20	1,426.62	20.00	25.73	20.00	20.00	J-3906	(N/A)	17.28	J-1198
621	J-356	Forest	TRUE	1.00	1,426.64	1.08	1,426.72	20.00	30.97	20.00	20.01	J-941	(N/A)	17.28	J-1198
2745	J-1483	Forest	TRUE	1.00	1,427.30	2.08	1,428.38	20.00	20.11	20.00	20.05	J-3004	(N/A)	17.28	J-1198
6880	J-3734	Stewartsville	TRUE	1.00	1,427.53	2.99	1,429.52	20.00	20.01	20.00	20.62	J-1397	(N/A)	17.28	J-1198
6563	J-3547	Forest	TRUE	1.00	1,428.27	1.48	1,428.74	20.00	20.00	20.00	20.62	J-3546	(N/A)	17.28	J-1198
6550	J-3538	Forest	TRUE	1.00	1,428.36	2.68	1,430.04	20.00	33.41	20.00	20.02	J-2366	(N/A)	17.28	J-1198
6551	J-3539	Forest	TRUE	1.00	1,428.39	1.68	1,429.07	20.00	32.81	20.00	20.02	J-2366	(N/A)	17.28	J-1198
3494	J-1904	Forest	TRUE	1.00	1,428.43	2.48	1,429.91	20.00	20.16	20.00	20.00	J-3143	(N/A)	17.28	J-1198
6391	J-3446	Forest	TRUE	1.00	1,428.45	1.08	1,428.53	20.00	20.00	20.00	20.98	J-3447	(N/A)	17.28	J-1198
5229	J-2772	Forest	TRUE	1.00	1,429.40	1.08	1,429.47	20.00	22.75	20.00	20.00	J-2839	(N/A)	17.28	J-1198
5230	J-2773	Forest	TRUE	1.00	1,429.40	1.08	1,429.47	20.00	22.09	20.00	20.00	J-2839	(N/A)	17.28	J-1198
1201	J-629	Lakes	TRUE	1.00	1,429.68	1.20	1,429.88	20.00	36.54	20.00	20.01	J-2323	(N/A)	17.28	J-1198
6251	J-3364	Lakes	TRUE	1.00	1,429.69	1.20	1,429.89	20.00	36.25	20.00	20.01	J-2323	(N/A)	17.28	J-1198
4859	J-2560	Forest	TRUE	1.00	1,429.73	1.28	1,430.01	20.00	34.17	20.00	20.00	J-3063	(N/A)	17.28	J-1198
4860	J-2561	Forest	TRUE	1.00	1,429.74	1.08	1,429.81	20.00	33.72	20.00	20.00	J-3063	(N/A)	17.28	J-1198
5716	J-3053	Forest	TRUE	1.00	1,430.59	1.68	1,431.27	20.00	20.19	20.00	20.04	J-3054	(N/A)	17.28	J-1198
5302	J-2814	Forest	TRUE	1.00	1,430.68	1.48	1,431.16	20.00	20.00	20.00	20.97	J-1754	(N/A)	17.28	J-1198
6146	J-3300	Forest	TRUE	1.00	1,430.95	1.48	1,431.43	20.00	20.00	20.00	20.25	J-2919	(N/A)	17.28	J-1198
2720	J-1468	Forest	TRUE	1.00	1,431.65	1.08	1,431.72	20.00	23.59	20.00	20.00	J-1467	(N/A)	17.28	J-1198
2550	J-1369	Forest	TRUE	1.00	1,431.78	1.28	1,432.06	20.00	20.45	20.00	20.02	J-1370	(N/A)	17.28	J-1198
532	J-302	Forest	TRUE	1.00	1,432.29	1.28	1,432.57	20.00	33.90	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3393	J-1846	Forest	TRUE	1.00	1,432.31	1.48	1,432.79	20.00	20.00	20.00	20.23	J-2919	(N/A)	17.28	J-1198
2599	J-1397	Stewartsville	TRUE	1.00	1,432.69	3.34	1,435.03	20.00	20.01	20.00	20.31	J-3734	(N/A)	17.28	J-1198
5139	J-2721	Forest	TRUE	1.00	1,432.69	1.08	1,432.77	20.00	20.00	20.00	20.06	J-1370	(N/A)	17.28	J-1198
1892	J-984	Lakes	TRUE	1.00	1,432.74	1.55	1,433.29	20.00	20.00	20.00	26.13	J-1587	(N/A)	17.28	J-1198
7381	J-3986	Forest	TRUE	1.00	1,433.17	1.08	1,433.24	20.00	20.00	20.00	20.53	J-3985	(N/A)	17.28	J-1198
5138	J-2720	Forest	TRUE	1.00	1,433.29	1.08	1,433.37	20.00	20.43	20.00	20.02	J-1370	(N/A)	17.28	J-1198
3482	J-1897	Forest	TRUE	1.00	1,433.33	1.48	1,433.81	20.00	23.33	20.00	20.00	J-941	(N/A)	17.28	J-1198
531	J-301	Forest	TRUE	1.00	1,433.36	1.48	1,433.83	20.00	32.64	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4565	J-2395	Forest	TRUE	1.00	1,433.38	1.08	1,433.46	20.00	23.79	20.00	20.00	J-1467	(N/A)	17.28	J-1198
4566	J-2396	Forest	TRUE	1.00	1,433.38	1.48	1,433.86	20.00	24.10	20.00	20.00	J-1467	(N/A)	17.28	J-1198
2331	J-1250	Forest	TRUE	1.00	1,435.01	2.28	1,436.29	20.00	20.00	20.00	20.04	J-2814	(N/A)	17.28	J-1198
3232	J-1754	Forest	TRUE	1.00	1,435.13	1.28	1,435.40	20.00	20.60	20.00	20.03	J-2814	(N/A)	17.28	J-1198
6362	J-3429	Forest	TRUE	1.00	1,435.15	3.09	1,437.23	20.00	20.00	20.00	20.13	J-2919	(N/A)	17.28	J-1198
2530	J-1358	Forest	TRUE	1.00	1,435.74	1.48	1,436.22	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2578	J-1385	Forest	TRUE	1.00	1,437.15	2.08	1,438.23	20.00	20.00	20.00	24.14	J-1197	(N/A)	17.06	J-1198
6153	J-3304	Forest	TRUE	1.00	1,438.09	1.68	1,438.77	20.00	20.00	20.00	20.12	J-2919	(N/A)	17.28	J-1198
7380	J-3985	Forest	TRUE	1.00	1,438.09	2.08	1,439.17	20.00	20.16	20.00	20.04	J-3986	(N/A)	17.28	J-1198
3392	J-1845	Forest	TRUE	1.00	1,438.45	1.08	1,438.53	20.00	20.00	20.00	20.13	J-2919	(N/A)	17.28	J-1198
6603	J-3570	Forest	TRUE	1.00	1,439.48	1.08	1,439.56	20.00	24.84	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1152	J-608	Forest	TRUE	1.00	1,439.49	1.28	1,439.77	20.00	25.81	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3407	J-1853	Forest	TRUE	1.00	1,439.74	1.08	1,439.81	20.00	24.49	20.00	20.02	J-2113	(N/A)	15.67	J-1198
5472	J-2913	Forest	TRUE	1.00	1,440.35	1.08	1,440.43	20.00	20.00	20.00	20.55	J-1883	(N/A)	17.28	J-1198
6575	J-3554	Forest	TRUE	1.00	1,440.59	1.68	1,441.27	20.00	25.31	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1121	J-597	Forest	TRUE	1.00	1,440.60	1.28	1,440.88	20.00	26.07	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7693	J-4090	Forest	TRUE	1.00	1,441.62	1.08	1,441.70	20.00	20.00	20.00	20.31	J-4089	(N/A)	17.28	J-1198
704	J-405	Forest	TRUE	1.00	1,441.76	1.08	1,441.83	20.00	22.84	20.00	20.01	J-2919	(N/A)	17.28	J-1198
705	J-406	Forest	TRUE	1.00	1,442.00	2.68	1,443.69	20.00	22.51	20.00	20.00				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3588	J-1957	Forest	TRUE	1.00	1,443.70	1.08	1,443.78	20.00	26.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4040	J-2180	Forest	TRUE	1.00	1,443.73	1.68	1,444.41	20.00	30.93	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6337	J-3414	Forest	TRUE	1.00	1,443.75	1.48	1,444.22	20.00	30.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6338	J-3415	Forest	TRUE	1.00	1,443.75	2.68	1,445.43	20.00	29.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8069	J-4165	Forest	TRUE	1.00	1,444.24	3.89	1,447.13	20.00	37.39	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3786	J-2062	Forest	TRUE	1.00	1,444.40	1.28	1,444.67	20.00	24.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4120	J-2216	Forest	TRUE	1.00	1,444.46	1.88	1,445.34	20.00	24.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6442	J-3476	Forest	TRUE	1.00	1,444.57	1.68	1,445.25	20.00	23.34	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5602	J-2987	Forest	TRUE	1.00	1,444.63	1.48	1,445.11	20.00	20.00	20.00	20.22	J-2919	(N/A)	17.28	J-1198
5835	J-3121	Forest	TRUE	1.00	1,444.70	1.08	1,444.78	20.00	21.59	20.00	20.00	J-2280	(N/A)	17.28	J-1198
5836	J-3122	Forest	TRUE	1.00	1,444.70	1.08	1,444.78	20.00	21.07	20.00	20.00	J-2280	(N/A)	17.28	J-1198
7132	J-3877	Forest	TRUE	1.00	1,444.80	1.48	1,445.28	20.00	35.72	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7133	J-3878	Forest	TRUE	1.00	1,444.80	1.08	1,444.88	20.00	35.94	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4516	J-2367	Forest	TRUE	1.00	1,444.85	1.88	1,445.73	20.00	25.93	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2724	J-1470	Forest	TRUE	1.00	1,444.85	2.68	1,446.54	20.00	25.81	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5623	J-2998	Forest	TRUE	1.00	1,444.87	1.88	1,445.75	20.00	29.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5624	J-2999	Forest	TRUE	1.00	1,444.87	1.88	1,445.75	20.00	29.47	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7501	J-4028	Forest	TRUE	1.00	1,444.87	3.09	1,446.96	20.00	33.92	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3753	J-2047	Forest	TRUE	1.00	1,444.88	2.08	1,445.96	20.00	36.82	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3754	J-2048	Forest	TRUE	1.00	1,445.04	2.28	1,446.32	20.00	20.41	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7614	J-4067	Forest	TRUE	1.00	1,445.04	1.48	1,445.52	20.00	34.51	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5039	J-2665	Forest	TRUE	1.00	1,445.04	3.89	1,447.93	20.00	37.93	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7528	J-4039	Forest	TRUE	1.00	1,445.04	1.08	1,445.12	20.00	36.33	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5040	J-2666	Forest	TRUE	1.00	1,445.04	1.48	1,445.52	20.00	37.71	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5840	J-3124	Forest	TRUE	1.00	1,445.04	1.48	1,445.52	20.00	37.19	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5841	J-3125	Forest	TRUE	1.00	1,445.04	3.09	1,447.13	20.00	36.90	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6127	J-3289	Forest	TRUE	1.00	1,445.04	3.09	1,447.13	20.00	34.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7529	J-4040	Forest	TRUE	1.00	1,445.04	1.08	1,445.12	20.00	35.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5382	J-2862	Forest	TRUE	1.00	1,445.04	1.08	1,445.12	20.00	32.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2633	J-1417	Forest	TRUE	1.00	1,445.04	1.88	1,445.92	20.00	32.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5383	J-2863	Forest	TRUE	1.00	1,445.04	1.88	1,445.92	20.00	32.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7852	J-4131	Forest	TRUE	1.00	1,445.05	1.68	1,445.73	20.00	44.04	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6128	J-3290	Forest	TRUE	1.00	1,445.05	1.08	1,445.13	20.00	34.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6202	J-3333	Forest	TRUE	1.00	1,445.10	1.68	1,445.78	20.00	30.06	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1018	J-555	Forest	TRUE	1.00	1,445.11	1.48	1,445.59	20.00	27.30	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7941	J-4147	Forest	TRUE	1.00	1,445.18	2.48	1,446.66	20.00	30.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7975	J-4153	Forest	TRUE	1.00	1,445.24	2.68	1,446.93	20.00	38.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6472	J-3493	Forest	TRUE	1.00	1,445.26	2.08	1,446.34	20.00	24.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6471	J-3492	Forest	TRUE	1.00	1,445.26	2.08	1,446.35	20.00	24.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6203	J-3334	Forest	TRUE	1.00	1,445.28	1.88	1,446.16	20.00	29.10	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6506	J-3512	Forest	TRUE	1.00	1,445.29	1.88	1,446.17	20.00	39.67	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6507	J-3513	Forest	TRUE	1.00	1,445.29	1.28	1,445.57	20.00	39.06	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3761	J-2050	Forest	TRUE	1.00	1,445.58	3.09	1,447.66	20.00	23.26	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6959	J-3780	Forest	TRUE	1.00	1,445.78	1.88	1,446.66	20.00	24.70	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6958	J-3779	Forest	TRUE	1.00	1,445.78	2.88	1,447.66	20.00	26.00	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4340	J-2292	Forest	TRUE	1.00	1,445.80	2.28	1,447.09	20.00	27.93	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7546	J-4046	Forest	TRUE	1.00	1,445.84	1.08	1,445.92	20.00	20.00	20.00	20.17	J-3922	(N/A)	17.28	J-1198
7692	J-4089	Forest	TRUE	1.00	1,445.89	1.48	1,446.37	20.00	20.03	20.00	20.07	J-4116	(N/A)	17.28	J-1198
3438	J-1871	Forest	TRUE	1.00	1,446.15	1.48	1,446.63	20.00	28.72	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5721	J-3056	Forest	TRUE	1.00	1,446.16	1.48	1,446.64	20.00	28.35	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7938	J-4146	Forest	TRUE	1.00	1,446.19	2.08	1,447.27	20.00	25.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3439	J-1872	Forest	TRUE	1.00	1,446.20	2.08	1,447.28	20.00	29.12	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7784	J-4116	Forest	TRUE	1.00	1,447.01	1.28	1,447.29	20.00	20.00	20.00	23.20	J-4089	(N/A)	17.28	J-1198
3458	J-1883	Forest	TRUE	1.00	1,447.20	1.08	1,447.27	20.00	20.12	20.00	20.04	J-2913	(N/A)	17.28	J-1198
5689	J-3037	Forest	TRUE	1.00	1,447.23	3.09	1,449.31	20.00	20.00	20.00	20.23	J-3922	(N/A)	17.28	J-1198
3495	J-1905	Forest	TRUE	1.00	1,447.70	2.08	1,448.78	20.00	21.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7069	J-3842	Forest	TRUE	1.00	1,447.80	2.68	1,449.48	20.00	20.00	20.00	20.45	J-3546	(N/A)	17.28	J-1198
5703	J-3046	Forest	TRUE	1.00	1,447.98	1.28	1,448.26	20.00	24.92	20.00	20.00	J-3063	(N/A)	17.28	J-1198
7272	J-3945	Forest	TRUE	1.00	1,447.98	2.08	1,449.06	20.00	24.62	20.00	20.00	J-3063	(N/A)	17.28	J-1198
5702	J-3045	Forest	TRUE	1.00	1,447.98	1.28	1,448.26	20.00	24.41	20.00	20.00	J-3063	(N/A)	17.28	J-1198
7223	J-3922	Forest	TRUE	1.00	1,448.12	1.88	1,449.00	20.00	20.00	20.00	20.26	J-3038	(N/A)	17.28	J-1198
4925	J-2598	Forest	TRUE	1.00	1,448.16	1.08	1,448.24	20.00	38.92	20.00	20.00	J-3953	(N/A)	17.28	J-1198
4926	J-2599	Forest	TRUE	1.00	1,448.16	1.08	1,448.24	20.00	38.58	20.00	20.00	J-3953	(N/A)	17.28	J-1198
6562	J-3546	Forest	TRUE	1.00	1,448.53	1.28	1,448.81	20.00	20.01	20.00	20.14	J-3547	(N/A)	17.28	J-1198
5690	J-3038	Forest	TRUE	1.00	1,449.70	1.48	1,450.18	20.00	20.14	20.00	20.05	J-3922	(N/A)	17.28	J-1198
3508	J-1913	Forest	TRUE	1.00	1,449.72	1.28	1,450.00	20.00	32.11	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3649	J-1990	Forest	TRUE	1.00	1,450.17	1.28	1,450.45	20.00	20.03	20.00	20.68	J-1599	(N/A)	17.28	J-1198
3507	J-1912	Forest	TRUE	1.00	1,450.29	1.48	1,450.77	20.00	29.82	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4702	J-2472	Forest	TRUE	1.00	1,450.29	1.88	1,451.17	20.00	29.41	20.00	20.00	J-2919	(N/A)	17.28	J-1198
294	J-151	Lakes	TRUE	1.00	1,450.30	1.20	1,450.49	20.00	43.78	20.00	20.05	J-2323	(N/A)	17.28	J-1198
293	J-150	Lakes	TRUE	1.00	1,450.31	1.20	1,450.50	20.00	43.64	20.00	20.05	J-2323	(N/A)	17.28	J-1198
4985	J-2633	Forest	TRUE	1.00	1,450.46	2.28	1,451.74	20.00	29.00	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7728	J-4101	Forest	TRUE	1.00	1,450.53	1.28	1,450.80	20.00	29.18	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3115	J-1684	Forest	TRUE	1.00	1,450.53	1.08	1,450.61	20.00	30.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3114	J-1683	Forest	TRUE	1.00	1,450.54	1.08	1,450.61	20.00	30.95	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7413	J-3997	Forest	TRUE	1.00	1,450.59	2.88	1,452.47	20.00	20.08	20.00	20.01	J-3546	(N/A)	17.28	J-1198
4984	J-2632	Forest	TRUE	1.00	1,450.87	1.28	1,451.15	20.00	29.27	20.00	20.01	J-2919	(N/A)	17.28	J-1198
675	J-390	Forest	TRUE	1.00	1,450.91	1.08	1,450.99	20.00	29.78	20.0					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4962	J-2620	Forest	TRUE	1.00	1,458.55	1.48	1,459.02	20.00	24.77	20.00	20.06	J-1599	(N/A)	17.28	J-1198
2184	J-1163	Forest	TRUE	1.00	1,458.65	1.48	1,459.13	20.00	20.00	20.00	20.05	J-2344	(N/A)	17.28	J-1198
2967	J-1600	Forest	TRUE	1.00	1,458.88	2.48	1,460.36	20.00	25.93	20.00	20.03	J-1599	(N/A)	17.28	J-1198
5563	J-2964	Forest	TRUE	1.00	1,459.15	2.28	1,460.43	20.00	24.57	20.00	20.00	J-3546	(N/A)	17.28	J-1198
5564	J-2965	Forest	TRUE	1.00	1,459.19	2.88	1,461.07	20.00	23.94	20.00	20.00	J-3546	(N/A)	17.28	J-1198
1057	J-572	Forest	TRUE	1.00	1,460.15	1.28	1,460.43	20.00	29.88	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6085	J-3264	Forest	TRUE	1.00	1,460.25	1.08	1,460.33	20.00	29.28	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3679	J-2006	Forest	TRUE	1.00	1,460.61	2.28	1,461.89	20.00	22.50	20.00	20.00	J-2208	(N/A)	17.28	J-1198
7682	J-4086	Lakes	TRUE	1.00	1,462.22	1.29	1,462.51	20.00	20.00	20.00	21.68	J-3250	(N/A)	17.28	J-1198
4888	J-2577	Forest	TRUE	1.00	1,462.36	1.08	1,462.44	20.00	44.07	20.00	20.01	J-3063	(N/A)	17.28	J-1198
4889	J-2578	Forest	TRUE	1.00	1,462.37	1.28	1,462.64	20.00	43.63	20.00	20.01	J-3063	(N/A)	17.28	J-1198
6639	J-3592	Forest	TRUE	1.00	1,462.62	1.48	1,463.10	20.00	38.33	20.00	20.00	J-2070	(N/A)	17.06	J-1198
4161	J-2234	Forest	TRUE	1.00	1,462.62	1.48	1,463.10	20.00	40.13	20.00	20.00	J-2070	(N/A)	17.06	J-1198
7068	J-3841	Forest	TRUE	1.00	1,462.69	1.88	1,463.57	20.00	22.21	20.00	20.00	J-3546	(N/A)	17.28	J-1198
2821	J-1528	Forest	TRUE	1.00	1,463.63	2.68	1,465.31	20.00	23.69	20.00	20.00	J-3546	(N/A)	17.28	J-1198
1846	J-954	Forest	TRUE	1.00	1,464.42	1.08	1,464.49	20.00	20.02	20.00	20.55	J-1787	(N/A)	17.28	J-1198
447	J-249	Forest	TRUE	1.00	1,465.66	1.28	1,465.93	20.00	34.93	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5575	J-2971	Forest	TRUE	1.00	1,465.70	1.28	1,465.98	20.00	34.45	20.00	20.01	J-2919	(N/A)	17.28	J-1198
2192	J-1168	Forest	TRUE	1.00	1,466.15	1.88	1,467.03	20.00	21.51	20.00	20.00	J-1167	(N/A)	17.28	J-1198
7100	J-3859	Forest	TRUE	1.00	1,467.07	1.68	1,467.75	20.00	38.75	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7101	J-3860	Forest	TRUE	1.00	1,467.07	1.48	1,467.55	20.00	38.73	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6892	J-3741	Forest	TRUE	1.00	1,467.10	3.09	1,469.18	20.00	42.74	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5897	J-3155	Forest	TRUE	1.00	1,467.13	1.88	1,468.01	20.00	37.79	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6893	J-3742	Forest	TRUE	1.00	1,467.15	1.08	1,467.23	20.00	41.49	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5898	J-3156	Forest	TRUE	1.00	1,467.17	1.08	1,467.25	20.00	36.98	20.00	20.01	J-2919	(N/A)	17.28	J-1198
446	J-248	Forest	TRUE	1.00	1,467.38	1.28	1,467.66	20.00	35.17	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4579	J-2404	Forest	TRUE	1.00	1,467.58	2.08	1,468.66	20.00	46.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4578	J-2403	Forest	TRUE	1.00	1,467.58	1.68	1,468.26	20.00	47.06	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4948	J-2612	Forest	TRUE	1.00	1,467.88	2.28	1,469.16	20.00	29.85	20.00	20.00	J-3546	(N/A)	17.28	J-1198
4947	J-2611	Forest	TRUE	1.00	1,467.88	2.28	1,469.16	20.00	29.98	20.00	20.00	J-3546	(N/A)	17.28	J-1198
5290	J-2807	Forest	TRUE	1.00	1,468.15	1.28	1,468.43	20.00	20.01	20.00	20.20	J-1787	(N/A)	17.28	J-1198
5639	J-3008	Forest	TRUE	1.00	1,468.66	1.08	1,468.74	20.00	20.00	20.00	20.87	J-3007	(N/A)	17.28	J-1198
1058	J-573	Forest	TRUE	1.00	1,468.80	2.48	1,470.28	20.00	27.36	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5506	J-2931	Forest	TRUE	1.00	1,469.61	2.08	1,470.69	20.00	26.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5507	J-2932	Forest	TRUE	1.00	1,469.61	1.68	1,470.29	20.00	26.46	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3285	J-1787	Forest	TRUE	1.00	1,470.27	2.68	1,471.95	20.00	20.00	20.00	20.24	J-2807	(N/A)	17.28	J-1198
6984	J-3794	Forest	TRUE	1.00	1,470.66	1.68	1,471.34	20.00	20.00	20.00	20.88	J-1635	(N/A)	17.28	J-1198
6862	J-3723	Forest	TRUE	1.00	1,471.94	1.28	1,472.22	20.00	20.04	20.00	20.26	J-3722	(N/A)	17.28	J-1198
7721	J-4098	Forest	TRUE	1.00	1,472.34	1.88	1,473.22	20.00	20.00	20.00	20.36	J-3008	(N/A)	17.28	J-1198
3751	J-2046	Forest	TRUE	1.00	1,473.07	1.48	1,473.54	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
2924	J-1582	Forest	TRUE	1.00	1,473.18	2.68	1,474.87	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5654	J-3017	Forest	TRUE	1.00	1,473.48	1.48	1,473.96	20.00	21.68	20.00	20.00	J-1167	(N/A)	17.28	J-1198
5655	J-3018	Forest	TRUE	1.00	1,473.48	1.48	1,473.96	20.00	21.28	20.00	20.00	J-1167	(N/A)	17.28	J-1198
6861	J-3722	Forest	TRUE	1.00	1,474.63	1.08	1,474.70	20.00	20.00	20.00	20.75	J-3723	(N/A)	17.28	J-1198
3489	J-1901	Forest	TRUE	1.00	1,474.94	1.08	1,475.01	20.00	23.64	20.00	20.00	J-2280	(N/A)	17.28	J-1198
6553	J-3540	Forest	TRUE	1.00	1,475.25	2.68	1,476.93	20.00	38.87	20.00	20.00	J-3546	(N/A)	17.28	J-1198
6554	J-3541	Forest	TRUE	1.00	1,475.25	1.28	1,475.53	20.00	38.22	20.00	20.00	J-3546	(N/A)	17.28	J-1198
6854	J-3718	Forest	TRUE	1.00	1,475.71	2.48	1,477.20	20.00	20.01	20.00	20.60	J-2153	(N/A)	17.28	J-1198
8088	J-4167	Forest	TRUE	1.00	1,476.99	1.88	1,477.87	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3347	J-1821	Lakes	TRUE	1.00	1,477.43	1.72	1,478.14	20.00	20.65	20.00	20.04	J-1822	(N/A)	17.28	J-1198
3194	J-1731	Forest	TRUE	1.00	1,477.46	1.08	1,477.54	20.00	20.03	20.00	20.58	J-1730	(N/A)	17.28	J-1198
7709	J-4094	Forest	TRUE	1.00	1,477.63	1.08	1,477.71	20.00	43.62	20.00	20.00	J-3546	(N/A)	17.28	J-1198
5638	J-3007	Forest	TRUE	1.00	1,479.74	1.48	1,480.22	20.00	20.33	20.00	20.00	J-3008	(N/A)	17.28	J-1198
2538	J-1362	Stewartsville	TRUE	1.00	1,480.31	1.26	1,480.57	20.00	20.03	20.00	28.65	J-676	(N/A)	17.28	J-1198
1290	J-670	Lakes	TRUE	1.00	1,481.68	1.20	1,481.88	20.00	51.84	20.00	20.04	J-2323	(N/A)	17.28	J-1198
6269	J-3374	Lakes	TRUE	1.00	1,481.69	1.20	1,481.89	20.00	50.95	20.00	20.04	J-2323	(N/A)	17.28	J-1198
3038	J-1634	Forest	TRUE	1.00	1,482.17	1.08	1,482.25	20.00	20.00	20.00	20.17	J-1635	(N/A)	17.28	J-1198
5426	J-2887	Forest	TRUE	1.00	1,483.58	1.08	1,483.65	20.00	20.03	20.00	20.58	J-1770	(N/A)	17.28	J-1198
5697	J-3042	Forest	TRUE	1.00	1,483.80	1.48	1,484.28	20.00	20.00	20.00	20.58	J-996	(N/A)	17.13	J-1198
6226	J-3348	Lakes	TRUE	1.00	1,484.05	1.20	1,484.25	20.00	20.00	20.00	20.12	J-3906	(N/A)	17.28	J-1198
2158	J-1146	Forest	TRUE	1.00	1,484.18	1.08	1,484.26	20.00	20.03	20.00	20.47	J-2887	(N/A)	17.28	J-1198
3974	J-2153	Forest	TRUE	1.00	1,484.35	1.88	1,485.23	20.00	20.01	20.00	20.33	J-3718	(N/A)	17.28	J-1198
6225	J-3347	Lakes	TRUE	1.00	1,484.62	1.20	1,484.82	20.00	20.95	20.00	20.06	J-3906	(N/A)	17.28	J-1198
3039	J-1635	Forest	TRUE	1.00	1,484.89	1.28	1,485.17	20.00	20.00	20.00	20.03	J-1634	(N/A)	17.28	J-1198
772	J-440	Forest	TRUE	1.00	1,484.95	1.28	1,485.23	20.00	29.47	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5498	J-2927	Forest	TRUE	1.00	1,485.05	1.68	1,485.73	20.00	28.78	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3193	J-1730	Forest	TRUE	1.00	1,485.21	1.08	1,485.29	20.00	20.03	20.00	20.27	J-1731	(N/A)	17.28	J-1198
6061	J-3249	Lakes	TRUE	1.00	1,486.06	1.63	1,486.69	20.00	20.00	20.00	20.62	J-3250	(N/A)	17.28	J-1198
6850	J-3716	Forest	TRUE	1.00	1,486.30	1.88	1,487.18	20.00	20.01	20.00	21.02	J-2223	(N/A)	17.28	J-1198
5448	J-2899	Forest	TRUE	1.00	1,486.40	1.48	1,486.88	20.00	20.03	20.00	20.76	J-1511	(N/A)	17.28	J-1198
3257	J-1770	Forest	TRUE	1.00	1,489.32	2.68	1,491.00	20.00	20.12	20.00	20.06	J-2887	(N/A)	17.28	J-1198
4679	J-2460	Forest	TRUE	1.00	1,490.20	1.48	1,490.68	20.00	47.04	20.00	20.00	J-3546	(N/A)	17.28	J-1198
4680	J-2461	Forest	TRUE	1.00	1,490.20	1.48	1,490.68	20.00	46.53	20.00	20.00	J-3546	(N/A)	17.28	J-1198
6956	J-3778	Forest	TRUE	1.00	1,490.27	1.68	1,490.95	20.00	24.99	20.00	20.02	J-2113	(N/A)	15.57	J-1198
3408	J-1854	Forest	TRUE	1.00	1,490.63	1.28	1,490.91	20.00	25.86	20.00	20.00	J-2113	(N/A)	15.57	J-1198
2698	J-1455	Forest	TRUE	1.00	1,491.55	1.48	1,492.03	20.00	21.47	20.00	20.00	J-1454	(N/A)	17.28	J-1198
773	J-441	Forest	TRUE	1.00	1,491.66	2.88	1,493.54	20.00	31.63	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1670	J-840	Stewartsville	TRUE	1.00	1,491.79	1.26	1,492.05	20.00	25.32	20.00					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4470	J-2340	Forest	TRUE	1.00	1,493.79	1.48	1,494.27	20.00	21.11	20.00	20.00	J-1454	(N/A)	17.28	J-1198
4471	J-2341	Forest	TRUE	1.00	1,493.79	2.28	1,495.08	20.00	21.22	20.00	20.00	J-1454	(N/A)	17.28	J-1198
6347	J-3420	Forest	TRUE	1.00	1,494.16	1.68	1,494.84	20.00	20.00	20.00	20.05	J-899	(N/A)	17.28	J-1198
1911	J-996	Forest	TRUE	1.00	1,494.85	2.08	1,495.93	20.00	20.03	20.00	20.00	J-3042	(N/A)	17.13	J-1198
4157	J-2232	Stewartsville	TRUE	1.00	1,495.21	1.69	1,495.90	20.00	30.75	20.00	20.00	J-1022	(N/A)	17.28	J-1198
5437	J-2893	Stewartsville	TRUE	1.00	1,495.21	1.40	1,495.61	20.00	29.77	20.00	20.00	J-1022	(N/A)	17.28	J-1198
4136	J-2223	Forest	TRUE	1.00	1,497.31	2.48	1,498.79	20.00	20.14	20.00	20.05	J-3716	(N/A)	17.28	J-1198
7188	J-3904	Forest	TRUE	1.00	1,498.47	1.08	1,498.55	20.00	20.01	20.00	20.62	J-2910	(N/A)	17.05	J-1198
6483	J-3499	Forest	TRUE	1.00	1,498.58	1.08	1,498.66	20.00	44.70	20.00	20.00	J-3090	(N/A)	17.05	J-1198
6484	J-3500	Forest	TRUE	1.00	1,498.58	1.08	1,498.66	20.00	44.91	20.00	20.00	J-3090	(N/A)	17.05	J-1198
1758	J-898	Forest	TRUE	1.00	1,499.02	2.28	1,500.30	20.00	20.61	20.00	20.05	J-899	(N/A)	17.28	J-1198
6062	J-3250	Lakes	TRUE	1.00	1,499.76	1.20	1,499.96	20.00	20.00	20.00	20.00	J-3249	(N/A)	17.28	J-1198
5465	J-2909	Forest	TRUE	1.00	1,500.17	1.68	1,500.85	20.00	20.17	20.00	20.04	J-3904	(N/A)	17.05	J-1198
4255	J-2265	Forest	TRUE	1.00	1,500.17	2.48	1,501.65	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5538	J-2950	Forest	TRUE	1.00	1,500.18	1.48	1,500.65	20.00	20.00	20.00	20.79	J-1414	(N/A)	17.28	J-1198
5466	J-2910	Forest	TRUE	1.00	1,500.22	1.68	1,500.90	20.00	20.51	20.00	20.04	J-3904	(N/A)	17.05	J-1198
2362	J-1266	Forest	TRUE	1.00	1,500.46	1.48	1,500.93	20.00	27.35	20.00	20.00	J-1267	(N/A)	17.28	J-1198
6220	J-3344	Forest	TRUE	1.00	1,501.36	1.48	1,501.83	20.00	20.00	20.00	20.62	J-1398	(N/A)	17.28	J-1198
4319	J-2286	Lakes	TRUE	1.00	1,502.85	1.20	1,503.05	20.00	20.00	20.00	20.21	J-3250	(N/A)	17.28	J-1198
1292	J-671	Forest	TRUE	1.00	1,503.06	1.08	1,503.13	20.00	76.64	20.00	20.03	J-3438	(N/A)	17.28	J-1198
6591	J-3563	Forest	TRUE	1.00	1,503.08	1.08	1,503.16	20.00	76.03	20.00	20.03	J-3438	(N/A)	17.28	J-1198
2935	J-1587	Lakes	TRUE	1.00	1,503.52	1.20	1,503.72	20.00	20.00	20.00	25.51	J-1304	(N/A)	17.28	J-1198
6321	J-3404	Forest	TRUE	1.00	1,504.63	1.88	1,505.51	20.00	20.00	20.00	20.42	J-3405	(N/A)	17.28	J-1198
2601	J-1398	Forest	TRUE	1.00	1,505.70	1.68	1,506.38	20.00	20.00	20.00	20.08	J-3344	(N/A)	17.28	J-1198
3721	J-2030	Forest	TRUE	1.00	1,505.73	1.88	1,506.61	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3758	J-2049	Forest	TRUE	1.00	1,505.96	1.28	1,506.24	20.00	20.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6019	J-3223	Forest	TRUE	1.00	1,507.06	1.08	1,507.14	20.00	51.48	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6020	J-3224	Forest	TRUE	1.00	1,507.06	1.08	1,507.14	20.00	51.13	20.00	20.00	J-3200	(N/A)	17.28	J-1198
1864	J-966	Forest	TRUE	1.00	1,507.57	2.48	1,509.05	20.00	20.93	20.00	20.00	J-967	(N/A)	17.28	J-1198
2629	J-1414	Forest	TRUE	1.00	1,507.70	1.48	1,508.18	20.00	20.31	20.00	20.02	J-2950	(N/A)	17.28	J-1198
1289	J-669	Lakes	TRUE	1.00	1,508.42	1.20	1,508.62	20.00	45.05	20.00	20.06	J-2323	(N/A)	17.28	J-1198
5915	J-3165	Lakes	TRUE	1.00	1,508.47	1.20	1,508.67	20.00	44.49	20.00	20.05	J-2323	(N/A)	17.28	J-1198
518	J-293	Forest	TRUE	1.00	1,509.39	1.48	1,509.87	20.00	42.44	20.00	20.00	J-2919	(N/A)	17.28	J-1198
729	J-419	Forest	TRUE	1.00	1,510.32	2.28	1,511.60	20.00	40.45	20.00	20.00	J-941	(N/A)	17.28	J-1198
6753	J-3659	Forest	TRUE	1.00	1,510.32	1.48	1,510.80	20.00	39.75	20.00	20.00	J-941	(N/A)	17.28	J-1198
5549	J-2956	Forest	TRUE	1.00	1,511.22	1.48	1,511.70	20.00	27.91	20.00	20.00	J-3204	(N/A)	17.28	J-1198
5548	J-2955	Forest	TRUE	1.00	1,511.22	1.68	1,511.90	20.00	28.53	20.00	20.00	J-3204	(N/A)	17.28	J-1198
7160	J-3893	Forest	TRUE	1.00	1,511.91	1.08	1,511.98	20.00	30.86	20.00	20.00	J-1512	(N/A)	17.28	J-1198
3527	J-1923	Forest	TRUE	1.00	1,511.91	1.28	1,512.19	20.00	30.63	20.00	20.00	J-1512	(N/A)	17.28	J-1198
6526	J-3524	Forest	TRUE	1.00	1,511.91	2.48	1,513.39	20.00	30.18	20.00	20.00	J-1512	(N/A)	17.28	J-1198
3528	J-1924	Forest	TRUE	1.00	1,511.93	1.48	1,512.41	20.00	26.86	20.00	20.00	J-1512	(N/A)	17.28	J-1198
2793	J-1512	Forest	TRUE	1.00	1,511.95	2.08	1,513.03	20.00	20.00	20.00	20.07	J-3405	(N/A)	17.28	J-1198
6982	J-3793	Forest	TRUE	1.00	1,512.08	1.08	1,512.16	20.00	42.07	20.00	20.00	J-2919	(N/A)	17.28	J-1198
517	J-292	Forest	TRUE	1.00	1,512.08	1.08	1,512.16	20.00	43.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6322	J-3405	Forest	TRUE	1.00	1,513.51	1.08	1,513.58	20.00	20.00	20.00	20.08	J-1512	(N/A)	17.28	J-1198
2892	J-1567	Forest	TRUE	1.00	1,515.83	5.28	1,520.11	20.00	20.92	20.00	20.07	J-2758	(N/A)	17.28	J-1198
5907	J-3161	Forest	TRUE	1.00	1,517.63	3.49	1,520.12	20.00	20.01	20.00	20.57	J-2032	(N/A)	17.28	J-1198
4784	J-2518	Forest	TRUE	1.00	1,518.24	1.88	1,519.12	20.00	20.00	20.00	20.39	J-2099	(N/A)	17.04	J-1198
5446	J-2898	Forest	TRUE	1.00	1,518.74	1.28	1,519.02	20.00	20.11	20.00	20.06	J-887	(N/A)	17.28	J-1198
2260	J-1208	Forest	TRUE	1.00	1,519.45	2.08	1,520.53	20.00	20.68	20.00	20.00	J-887	(N/A)	17.28	J-1198
5741	J-3068	Forest	TRUE	1.00	1,521.53	1.48	1,522.01	20.00	20.00	20.00	21.26	J-2225	(N/A)	17.04	J-1198
7505	J-4029	Forest	TRUE	1.00	1,523.55	5.32	1,527.87	20.00	48.00	20.00	20.00	J-2919	(N/A)	17.28	J-1198
808	J-458	Forest	TRUE	1.00	1,523.55	1.08	1,523.63	20.00	48.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4139	J-2225	Forest	TRUE	1.00	1,524.96	1.28	1,525.23	20.00	20.78	20.00	20.10	J-3068	(N/A)	17.04	J-1198
2732	J-1475	Forest	TRUE	1.00	1,525.48	1.68	1,526.16	20.00	32.91	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5641	J-3009	Forest	TRUE	1.00	1,525.52	1.48	1,526.00	20.00	32.47	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3725	J-2032	Forest	TRUE	1.00	1,525.57	1.08	1,525.64	20.00	20.00	20.00	20.02	J-3161	(N/A)	17.28	J-1198
1347	J-686	Forest	TRUE	1.00	1,525.74	3.49	1,528.23	20.00	37.58	20.00	20.00	J-2919	(N/A)	17.28	J-1198
634	J-364	Forest	TRUE	1.00	1,525.75	1.88	1,526.63	20.00	38.94	20.00	20.00	J-941	(N/A)	17.28	J-1198
3863	J-2099	Forest	TRUE	1.00	1,527.05	1.68	1,527.73	20.00	20.01	20.00	20.00	J-2518	(N/A)	17.04	J-1198
389	J-212	Forest	TRUE	1.00	1,528.92	1.08	1,529.00	20.00	52.22	20.00	20.00	J-3200	(N/A)	17.28	J-1198
390	J-213	Forest	TRUE	1.00	1,528.92	1.08	1,529.00	20.00	52.55	20.00	20.00	J-3200	(N/A)	17.28	J-1198
3702	J-2020	Forest	TRUE	1.00	1,530.91	1.48	1,531.39	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
7010	J-3810	Forest	TRUE	1.00	1,534.57	1.68	1,535.25	20.00	20.00	20.00	20.30	J-2919	(N/A)	17.28	J-1198
753	J-431	Forest	TRUE	1.00	1,534.98	1.08	1,535.06	20.00	51.08	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5082	J-2690	Forest	TRUE	1.00	1,534.98	1.48	1,535.46	20.00	50.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7476	J-4020	Stewartsville	TRUE	1.00	1,536.02	4.28	1,539.30	20.00	20.00	20.00	21.42	J-2374	(N/A)	17.28	J-1198
3401	J-1850	Forest	TRUE	1.00	1,536.55	1.48	1,537.03	20.00	57.03	20.00	20.00	J-1197	(N/A)	12.92	J-1198
2292	J-1227	Forest	TRUE	1.00	1,536.56	1.28	1,536.84	20.00	53.10	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5496	J-2926	Forest	TRUE	1.00	1,536.56	1.28	1,536.84	20.00	52.38	20.00	20.00	J-1197	(N/A)	12.92	J-1198
383	J-208	Forest	TRUE	1.00	1,536.95	1.08	1,537.03	20.00	38.39	20.00	20.00	J-941	(N/A)	17.28	J-1198
8064	J-4164	Forest	TRUE	1.00	1,537.04	2.28	1,538.32	20.00	25.82	20.00	20.00	J-3008	(N/A)	17.28	J-1198
7724	J-4099	Forest	TRUE	1.00	1,537.06	2.28	1,538.34	20.00	23.08	20.00	20.00	J-3008	(N/A)	17.28	J-1198
3436	J-1870	Forest	TRUE	1.00	1,537.43	2.88	1,539.31	20.00	20.02	20.00	20.40	J-1635	(N/A)	17.28	J-1198
2795	J-1513	Forest	TRUE	1.00	1,537.66	1.08	1,537.74	20.00	20.00	20.00	20.62	J-1714	(N/A)	17.04	J-1198
384	J-209	Forest	TRUE	1.00	1,537.94	1.08	1,538.02	20.00	38.23	20.00	20.00	J-941	(N/A)	17.28	J-1198
1401	J-698	Forest	TRUE	1.00	1,537.95	1.28	1,538.22	20.00	37.67	20.00	20.00	J-941	(N/A)	17.28	J-1198
1257	J-653	Lakes	TRUE	1.00	1,538.04	1.20	1,538.24	20.00	44.80	20.00	20.06	J-2323	(

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4738	J-2493	Forest	TRUE	1.00	1,550.53	1.88	1,551.41	20.00	20.00	20.00	20.35	J-638	(N/A)	17.28	J-1198
3424	J-1863	Forest	TRUE	1.00	1,550.61	1.28	1,550.88	20.00	27.80	20.00	20.00	J-2113	(N/A)	15.44	J-1198
6791	J-3682	Lakes	TRUE	1.00	1,550.71	1.20	1,550.91	20.00	20.28	20.00	20.01	J-1586	(N/A)	17.28	J-1198
3634	J-1982	Forest	TRUE	1.00	1,550.94	2.88	1,552.82	20.00	20.12	20.00	20.07	J-3069	(N/A)	17.28	J-1198
6790	J-3681	Lakes	TRUE	1.00	1,551.21	1.20	1,551.41	20.00	20.58	20.00	20.00	J-1586	(N/A)	17.28	J-1198
7009	J-3809	Forest	TRUE	1.00	1,553.71	1.68	1,554.39	20.00	20.42	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5234	J-2775	Forest	TRUE	1.00	1,554.36	1.28	1,554.64	20.00	20.53	20.00	20.03	J-3722	(N/A)	17.28	J-1198
3119	J-1686	Forest	TRUE	1.00	1,554.73	1.08	1,554.81	20.00	21.41	20.00	20.00	J-3722	(N/A)	17.28	J-1198
3120	J-1687	Forest	TRUE	1.00	1,554.73	1.08	1,554.81	20.00	21.00	20.00	20.00	J-3722	(N/A)	17.28	J-1198
962	J-529	Forest	TRUE	1.00	1,555.29	1.28	1,555.57	20.00	50.80	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6945	J-3772	Forest	TRUE	1.00	1,555.68	1.08	1,555.76	20.00	22.34	20.00	20.00	J-941	(N/A)	17.28	J-1198
3434	J-1869	Forest	TRUE	1.00	1,555.76	1.48	1,556.24	20.00	23.29	20.00	20.00	J-941	(N/A)	17.28	J-1198
2748	J-1485	Forest	TRUE	1.00	1,556.05	1.28	1,556.33	20.00	20.22	20.00	20.00	J-941	(N/A)	17.28	J-1198
6946	J-3773	Forest	TRUE	1.00	1,556.05	1.08	1,556.13	20.00	23.84	20.00	20.00	J-941	(N/A)	17.28	J-1198
1483	J-744	Forest	TRUE	1.00	1,556.06	1.48	1,556.54	20.00	24.53	20.00	20.00	J-941	(N/A)	17.28	J-1198
1303	J-675	Forest	TRUE	1.00	1,557.20	2.48	1,558.68	20.00	39.74	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7056	J-3835	Forest	TRUE	1.00	1,557.20	2.28	1,558.48	20.00	27.11	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2765	J-1495	Forest	TRUE	1.00	1,557.21	2.28	1,558.49	20.00	29.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4800	J-2527	Forest	TRUE	1.00	1,559.25	1.08	1,559.33	20.00	20.00	20.00	20.19	J-2127	(N/A)	17.28	J-1198
2487	J-1334	Forest	TRUE	1.00	1,559.72	1.08	1,559.79	20.00	29.90	20.00	20.00	J-1446	(N/A)	17.28	J-1198
6319	J-3403	Forest	TRUE	1.00	1,559.72	1.28	1,560.00	20.00	29.30	20.00	20.00	J-1446	(N/A)	17.28	J-1198
1850	J-957	Forest	TRUE	1.00	1,562.05	1.88	1,562.93	20.00	20.15	20.00	20.05	J-956	(N/A)	17.28	J-1198
5803	J-3104	Forest	TRUE	1.00	1,562.17	1.68	1,562.85	20.00	48.12	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5802	J-3103	Forest	TRUE	1.00	1,562.17	1.48	1,562.65	20.00	48.74	20.00	20.00	J-3200	(N/A)	17.28	J-1198
2737	J-1478	Forest	TRUE	1.00	1,562.43	4.09	1,565.52	20.00	20.02	20.00	21.43	J-941	(N/A)	17.28	J-1198
921	J-511	Forest	TRUE	1.00	1,562.87	1.08	1,562.95	20.00	25.10	20.00	20.01	J-2493	(N/A)	17.28	J-1198
5444	J-2897	Forest	TRUE	1.00	1,562.92	1.48	1,563.40	20.00	24.67	20.00	20.00	J-2493	(N/A)	17.28	J-1198
1221	J-638	Forest	TRUE	1.00	1,563.02	1.28	1,563.29	20.00	20.01	20.00	20.00	J-2493	(N/A)	17.28	J-1198
930	J-514	Forest	TRUE	1.00	1,563.07	1.08	1,563.15	20.00	21.95	20.00	20.00	J-2493	(N/A)	17.28	J-1198
5037	J-2664	Forest	TRUE	1.00	1,563.09	1.68	1,563.77	20.00	21.54	20.00	20.00	J-2493	(N/A)	17.28	J-1198
5267	J-2794	Forest	TRUE	1.00	1,563.11	2.08	1,564.19	20.00	27.76	20.00	20.00	J-2493	(N/A)	17.28	J-1198
400	J-219	Forest	TRUE	1.00	1,563.11	1.88	1,563.99	20.00	28.54	20.00	20.00	J-2493	(N/A)	17.28	J-1198
401	J-220	Forest	TRUE	1.00	1,563.11	1.48	1,563.59	20.00	28.31	20.00	20.00	J-2493	(N/A)	17.28	J-1198
3919	J-2127	Forest	TRUE	1.00	1,563.20	2.88	1,565.08	20.00	20.00	20.00	20.21	J-2527	(N/A)	17.28	J-1198
1498	J-749	Forest	TRUE	1.00	1,564.83	1.28	1,565.11	20.00	33.73	20.00	20.01	J-941	(N/A)	17.28	J-1198
6109	J-3278	Forest	TRUE	1.00	1,564.89	1.08	1,564.96	20.00	33.35	20.00	20.01	J-941	(N/A)	17.28	J-1198
4633	J-2435	Forest	TRUE	1.00	1,567.48	1.48	1,567.96	20.00	22.65	20.00	20.00	J-4167	(N/A)	17.28	J-1198
4634	J-2436	Forest	TRUE	1.00	1,567.48	1.68	1,568.16	20.00	22.62	20.00	20.00	J-4167	(N/A)	17.28	J-1198
7426	J-4002	Forest	TRUE	1.00	1,567.48	2.68	1,569.16	20.00	22.54	20.00	20.00	J-4167	(N/A)	17.28	J-1198
594	J-340	Lakes	TRUE	1.00	1,567.51	1.20	1,567.70	20.00	50.16	20.00	20.04	J-2323	(N/A)	17.28	J-1198
6265	J-3372	Lakes	TRUE	1.00	1,567.54	1.20	1,567.74	20.00	48.63	20.00	20.04	J-2323	(N/A)	17.28	J-1198
356	J-191	Lakes	TRUE	1.00	1,571.07	1.20	1,571.27	20.00	48.88	20.00	20.04	J-2323	(N/A)	17.28	J-1198
355	J-190	Lakes	TRUE	1.00	1,571.08	1.20	1,571.28	20.00	48.73	20.00	20.04	J-2323	(N/A)	17.28	J-1198
2802	J-1517	Forest	TRUE	1.00	1,571.58	2.88	1,573.47	20.00	24.27	20.00	20.05	J-1516	(N/A)	17.28	J-1198
1468	J-736	Forest	TRUE	1.00	1,573.00	1.28	1,573.27	20.00	37.58	20.00	20.00	J-941	(N/A)	17.28	J-1198
5269	J-2795	Forest	TRUE	1.00	1,573.00	1.48	1,573.48	20.00	37.24	20.00	20.00	J-941	(N/A)	17.28	J-1198
3779	J-2059	Forest	TRUE	1.00	1,575.00	5.50	1,579.49	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
3633	J-1981	Forest	TRUE	1.00	1,575.84	1.88	1,576.72	20.00	26.63	20.00	20.00	J-2108	(N/A)	17.28	J-1198
1445	J-724	Forest	TRUE	1.00	1,577.98	1.28	1,578.26	20.00	39.74	20.00	20.00	J-941	(N/A)	17.28	J-1198
5145	J-2724	Forest	TRUE	1.00	1,579.85	1.08	1,579.93	20.00	41.03	20.00	20.00	J-941	(N/A)	17.28	J-1198
1446	J-725	Forest	TRUE	1.00	1,580.07	1.08	1,580.15	20.00	41.70	20.00	20.00	J-941	(N/A)	17.28	J-1198
7946	J-4148	Forest	TRUE	1.00	1,580.27	1.48	1,580.75	20.00	32.03	20.00	20.00	J-3204	(N/A)	17.28	J-1198
6122	J-3286	Forest	TRUE	1.00	1,580.53	1.88	1,581.41	20.00	37.83	20.00	20.01	J-941	(N/A)	17.28	J-1198
6121	J-3285	Forest	TRUE	1.00	1,580.59	1.48	1,581.07	20.00	37.14	20.00	20.01	J-941	(N/A)	17.28	J-1198
3918	J-2126	Forest	TRUE	1.00	1,581.19	2.68	1,582.88	20.00	39.33	20.00	20.01	J-941	(N/A)	17.28	J-1198
3716	J-2027	Forest	TRUE	1.00	1,582.87	1.88	1,583.75	20.00	20.02	20.00	24.35	J-2919	(N/A)	17.28	J-1198
6589	J-3562	Forest	TRUE	1.00	1,583.57	1.08	1,583.65	20.00	53.70	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1046	J-568	Forest	TRUE	1.00	1,583.58	2.08	1,584.66	20.00	54.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4449	J-2328	Stewartsville	TRUE	1.00	1,584.37	1.26	1,584.62	20.00	20.00	20.00	20.03	J-676	(N/A)	17.28	J-1198
5372	J-2856	Forest	TRUE	1.00	1,584.79	1.88	1,585.68	20.00	46.67	20.00	20.00	J-941	(N/A)	17.28	J-1198
5371	J-2855	Forest	TRUE	1.00	1,584.80	1.48	1,585.28	20.00	46.25	20.00	20.00	J-941	(N/A)	17.28	J-1198
1305	J-676	Stewartsville	TRUE	1.00	1,585.11	1.69	1,585.80	20.00	20.00	20.00	20.03	J-2328	(N/A)	17.28	J-1198
1488	J-745	Forest	TRUE	1.00	1,585.65	1.08	1,585.72	20.00	45.50	20.00	20.00	J-941	(N/A)	17.28	J-1198
5252	J-2786	Forest	TRUE	1.00	1,585.65	1.28	1,585.92	20.00	44.96	20.00	20.00	J-941	(N/A)	17.28	J-1198
1167	J-613	Forest	TRUE	1.00	1,585.90	1.48	1,586.38	20.00	47.45	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5074	J-2686	Forest	TRUE	1.00	1,586.04	3.09	1,588.13	20.00	26.35	20.00	20.00	J-2919	(N/A)	17.28	J-1198
539	J-306	Forest	TRUE	1.00	1,586.05	1.48	1,586.53	20.00	26.90	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3292	J-1791	Forest	TRUE	1.00	1,586.48	1.88	1,587.36	20.00	47.21	20.00	20.00	J-941	(N/A)	17.28	J-1198
3293	J-1792	Forest	TRUE	1.00	1,586.49	1.08	1,586.57	20.00	45.81	20.00	20.00	J-941	(N/A)	17.28	J-1198
4078	J-2198	Forest	TRUE	1.00	1,586.51	1.28	1,586.79	20.00	43.87	20.00	20.00	J-2240	(N/A)	17.28	J-1198
5813	J-3109	Forest	TRUE	1.00	1,586.51	1.48	1,586.99	20.00	43.42	20.00	20.00	J-2240	(N/A)	17.28	J-1198
3790	J-2064	Forest	TRUE	1.00	1,586.77	1.68	1,587.45	20.00	23.57	20.00	20.00	J-1044	(N/A)	17.02	J-1198
7612	J-4066	Forest	TRUE	1.00	1,587.22	1.68	1,587.90	20.00	47.29	20.00	20.00	J-941	(N/A)	17.28	J-1198
540	J-307	Forest	TRUE	1.00	1,587.46	1.88	1,588.34	20.00	27.17	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3252	J-1767	Forest	TRUE	1.00	1,588.79	1.68	1,589.47	20.00	46.48	20.00	20.01	J-941	(N/A)	17.28	J-1198
4845	J-2552	Forest	TRUE	1.00	1,588.80	2.08	1,589.88	20.00	52.75	20.00	20.00	J-941	(N/A)	17.28	J-1198
4846	J-2553	Forest	TRUE	1.00	1,589.01	2.28	1,590.30	20.00	53.40	20.00	20.00	J-941	(N/A)	17.28	J-1198
5300	J-2813	Forest	TRUE	1.00	1,589.17	2.28	1,590.46	20.00	47.76	20.00	20.00	J-941	(N/A)	17.28	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4548	J-2385	Forest	TRUE	1.00	1,591.28	1.28	1,591.56	20.00	29.42	20.00	20.00	J-941	(N/A)	17.28	J-1198
4037	J-2178	Forest	TRUE	1.00	1,591.35	1.68	1,592.03	20.00	56.29	20.00	20.00	J-941	(N/A)	17.28	J-1198
7821	J-4126	Forest	TRUE	1.00	1,591.46	1.48	1,591.94	20.00	25.54	20.00	20.00	J-941	(N/A)	17.28	J-1198
1752	J-894	Forest	TRUE	1.00	1,591.53	1.88	1,592.41	20.00	21.12	20.00	20.00	J-895	(N/A)	17.28	J-1198
4667	J-2453	Forest	TRUE	1.00	1,591.55	3.09	1,593.64	20.00	31.87	20.00	20.00	J-941	(N/A)	17.28	J-1198
9015	J-4158	Forest	TRUE	1.00	1,591.55	2.88	1,593.44	20.00	58.47	20.00	20.00	J-941	(N/A)	17.28	J-1198
4668	J-2454	Forest	TRUE	1.00	1,591.56	1.88	1,592.44	20.00	31.52	20.00	20.00	J-941	(N/A)	17.28	J-1198
4581	J-2405	Forest	TRUE	1.00	1,591.56	2.08	1,592.64	20.00	33.10	20.00	20.00	J-941	(N/A)	17.28	J-1198
4582	J-2406	Forest	TRUE	1.00	1,591.56	2.28	1,592.84	20.00	32.86	20.00	20.00	J-941	(N/A)	17.28	J-1198
5160	J-2733	Forest	TRUE	1.00	1,591.56	1.48	1,592.04	20.00	34.40	20.00	20.00	J-941	(N/A)	17.28	J-1198
3848	J-2093	Forest	TRUE	1.00	1,591.56	2.68	1,593.25	20.00	34.88	20.00	20.00	J-941	(N/A)	17.28	J-1198
4299	J-2282	Forest	TRUE	1.00	1,591.57	3.49	1,594.05	20.00	41.21	20.00	20.00	J-941	(N/A)	17.28	J-1198
5310	J-2819	Forest	TRUE	1.00	1,591.57	1.68	1,592.25	20.00	40.92	20.00	20.00	J-941	(N/A)	17.28	J-1198
4038	J-2179	Forest	TRUE	1.00	1,591.57	3.09	1,593.66	20.00	40.48	20.00	20.00	J-941	(N/A)	17.28	J-1198
5265	J-2793	Forest	TRUE	1.00	1,591.57	1.08	1,591.65	20.00	40.37	20.00	20.00	J-941	(N/A)	17.28	J-1198
4918	J-2594	Forest	TRUE	1.00	1,591.58	3.09	1,593.67	20.00	65.60	20.00	20.00	J-941	(N/A)	17.28	J-1198
4919	J-2595	Forest	TRUE	1.00	1,591.58	4.29	1,594.88	20.00	64.87	20.00	20.00	J-941	(N/A)	17.28	J-1198
6234	J-3353	Lakes	TRUE	1.00	1,591.88	1.20	1,592.08	20.00	21.88	20.00	20.04	J-3906	(N/A)	17.28	J-1198
6233	J-3352	Lakes	TRUE	1.00	1,592.22	1.20	1,592.42	20.00	22.43	20.00	20.00	J-3906	(N/A)	17.28	J-1198
2519	J-1351	Forest	TRUE	1.00	1,593.01	1.08	1,593.09	20.00	36.66	20.00	20.00	J-941	(N/A)	17.28	J-1198
5043	J-2668	Forest	TRUE	1.00	1,593.29	2.08	1,594.37	20.00	58.32	20.00	20.00	J-941	(N/A)	17.28	J-1198
5042	J-2667	Forest	TRUE	1.00	1,593.29	2.88	1,595.17	20.00	58.72	20.00	20.00	J-941	(N/A)	17.28	J-1198
1264	J-656	Forest	TRUE	1.00	1,593.96	1.88	1,594.84	20.00	63.30	20.00	20.00	J-941	(N/A)	17.28	J-1198
6934	J-3766	Forest	TRUE	1.00	1,594.23	1.48	1,594.70	20.00	35.35	20.00	20.01	J-941	(N/A)	17.28	J-1198
6935	J-3767	Forest	TRUE	1.00	1,594.58	1.08	1,594.65	20.00	36.81	20.00	20.00	J-941	(N/A)	17.28	J-1198
8203	J-4170	Forest	TRUE	1.00	1,594.64	3.29	1,596.93	20.00	56.84	20.00	20.01	J-941	(N/A)	17.28	J-1198
4541	J-2381	Forest	TRUE	1.00	1,594.77	1.28	1,595.05	20.00	80.40	20.00	20.00	J-941	(N/A)	17.28	J-1198
4540	J-2380	Forest	TRUE	1.00	1,594.77	3.69	1,597.46	20.00	80.56	20.00	20.00	J-941	(N/A)	17.28	J-1198
4506	J-2361	Forest	TRUE	1.00	1,595.18	4.09	1,598.27	20.00	77.54	20.00	20.00	J-941	(N/A)	17.28	J-1198
1177	J-617	Forest	TRUE	1.00	1,595.18	1.28	1,595.46	20.00	80.81	20.00	20.00	J-941	(N/A)	17.28	J-1198
4505	J-2360	Forest	TRUE	1.00	1,595.18	2.68	1,596.86	20.00	77.14	20.00	20.00	J-941	(N/A)	17.28	J-1198
3537	J-1928	Forest	TRUE	1.00	1,596.60	1.28	1,596.88	20.00	50.53	20.00	20.00	J-941	(N/A)	17.28	J-1198
4623	J-2429	Forest	TRUE	1.00	1,596.61	1.08	1,596.68	20.00	49.99	20.00	20.00	J-941	(N/A)	17.28	J-1198
1495	J-748	Forest	TRUE	1.00	1,596.82	1.08	1,596.90	20.00	54.04	20.00	20.00	J-941	(N/A)	17.28	J-1198
2481	J-1331	Forest	TRUE	1.00	1,598.13	2.08	1,599.21	20.00	43.56	20.00	20.01	J-941	(N/A)	17.28	J-1198
2500	J-1341	Forest	TRUE	1.00	1,598.31	2.68	1,599.99	20.00	46.19	20.00	20.01	J-941	(N/A)	17.28	J-1198
2458	J-1318	Forest	TRUE	1.00	1,598.36	2.08	1,599.44	20.00	48.25	20.00	20.01	J-941	(N/A)	17.28	J-1198
2457	J-1317	Forest	TRUE	1.00	1,598.62	2.08	1,599.70	20.00	55.08	20.00	20.00	J-941	(N/A)	17.28	J-1198
7517	J-4034	Forest	TRUE	1.00	1,598.63	1.08	1,598.70	20.00	52.61	20.00	20.00	J-941	(N/A)	17.28	J-1198
2461	J-1320	Forest	TRUE	1.00	1,598.63	1.88	1,599.51	20.00	60.74	20.00	20.00	J-941	(N/A)	17.28	J-1198
5412	J-2879	Forest	TRUE	1.00	1,598.78	1.28	1,599.06	20.00	75.55	20.00	20.00	J-941	(N/A)	17.28	J-1198
325	J-171	Forest	TRUE	1.00	1,598.78	1.08	1,598.86	20.00	76.79	20.00	20.00	J-941	(N/A)	17.28	J-1198
7225	J-3923	Forest	TRUE	1.00	1,598.84	1.08	1,598.91	20.00	68.39	20.00	20.00	J-941	(N/A)	17.28	J-1198
7190	J-3905	Forest	TRUE	1.00	1,598.84	1.08	1,598.91	20.00	61.43	20.00	20.00	J-941	(N/A)	17.28	J-1198
4723	J-2484	Forest	TRUE	1.00	1,598.84	1.08	1,598.91	20.00	61.69	20.00	20.00	J-941	(N/A)	17.28	J-1198
2460	J-1319	Forest	TRUE	1.00	1,598.84	1.68	1,599.52	20.00	67.85	20.00	20.00	J-941	(N/A)	17.28	J-1198
4722	J-2483	Forest	TRUE	1.00	1,598.84	1.08	1,598.92	20.00	61.11	20.00	20.00	J-941	(N/A)	17.28	J-1198
324	J-170	Forest	TRUE	1.00	1,598.84	1.08	1,598.92	20.00	76.97	20.00	20.00	J-941	(N/A)	17.28	J-1198
7232	J-3926	Forest	TRUE	1.00	1,598.94	1.28	1,599.22	20.00	20.02	20.00	20.53	J-3608	(N/A)	17.28	J-1198
941	J-519	Forest	TRUE	1.00	1,600.12	1.08	1,600.20	20.00	30.91	20.00	20.01	J-2919	(N/A)	17.28	J-1198
948	J-523	Forest	TRUE	1.00	1,600.14	1.08	1,600.22	20.00	31.66	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5824	J-3115	Forest	TRUE	1.00	1,600.29	1.88	1,601.17	20.00	30.47	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1840	J-950	Forest	TRUE	1.00	1,600.66	1.48	1,601.14	20.00	20.06	20.00	21.49	J-951	(N/A)	17.02	J-1198
6197	J-3330	Forest	TRUE	1.00	1,600.72	1.28	1,601.00	20.00	20.00	20.00	21.00	J-937	(N/A)	17.28	J-1198
6490	J-3503	Forest	TRUE	1.00	1,600.76	1.48	1,601.24	20.00	29.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1222	J-639	Forest	TRUE	1.00	1,600.76	1.68	1,601.44	20.00	29.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1245	J-650	Lakes	TRUE	1.00	1,601.40	1.20	1,601.60	20.00	49.36	20.00	20.04	J-2323	(N/A)	17.28	J-1198
5331	J-2832	Lakes	TRUE	1.00	1,601.42	1.20	1,601.62	20.00	48.96	20.00	20.04	J-2323	(N/A)	17.28	J-1198
4670	J-2455	Forest	TRUE	1.00	1,602.11	1.08	1,602.19	20.00	55.58	20.00	20.00	J-941	(N/A)	17.28	J-1198
1425	J-712	Forest	TRUE	1.00	1,602.12	1.88	1,603.00	20.00	56.04	20.00	20.00	J-941	(N/A)	17.28	J-1198
2490	J-1336	Forest	TRUE	1.00	1,602.63	4.88	1,606.51	20.00	39.52	20.00	20.01	J-941	(N/A)	17.28	J-1198
1026	J-558	Forest	TRUE	1.00	1,602.91	1.08	1,602.99	20.00	56.25	20.00	20.00	J-941	(N/A)	17.28	J-1198
1408	J-702	Forest	TRUE	1.00	1,603.22	1.68	1,603.90	20.00	56.32	20.00	20.00	J-941	(N/A)	17.28	J-1198
6665	J-3607	Forest	TRUE	1.00	1,603.52	1.08	1,603.60	20.00	20.44	20.00	20.00	J-3926	(N/A)	17.28	J-1198
1041	J-565	Forest	TRUE	1.00	1,605.67	1.08	1,605.74	20.00	35.47	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6698	J-3627	Forest	TRUE	1.00	1,605.67	1.08	1,605.75	20.00	34.99	20.00	20.00	J-3200	(N/A)	17.28	J-1198
3561	J-1942	Forest	TRUE	1.00	1,607.62	1.48	1,608.10	20.00	20.00	20.00	22.40	J-1197	(N/A)	15.32	J-1198
5665	J-3024	Forest	TRUE	1.00	1,608.99	1.48	1,609.47	20.00	20.01	20.00	20.52	J-2193	(N/A)	17.28	J-1198
1480	J-742	Forest	TRUE	1.00	1,608.99	1.48	1,609.47	20.00	57.60	20.00	20.00	J-941	(N/A)	17.28	J-1198
4586	J-2408	Forest	TRUE	1.00	1,608.99	1.48	1,609.47	20.00	57.19	20.00	20.00	J-941	(N/A)	17.28	J-1198
6961	J-3781	Forest	TRUE	1.00	1,610.51	1.08	1,610.58	20.00	27.35	20.00	20.00	J-2280	(N/A)	17.28	J-1198
6962	J-3782	Forest	TRUE	1.00	1,610.52	1.08	1,610.59	20.00	25.54	20.00	20.00	J-2280	(N/A)	17.28	J-1198
1819	J-937	Forest	TRUE	1.00	1,612.47	1.08	1,612.54	20.00	20.06	20.00	20.05	J-3330	(N/A)	17.28	J-1198
4558	J-2391	Forest	TRUE	1.00	1,613.16	1.48	1,613.64	20.00	20.66	20.00	20.05	J-2121	(N/A)	17.28	J-1198
6196	J-3329	Forest	TRUE	1.00	1,613.24	1.28	1,613.52	20.00	20.41	20.00	20.00	J-3330	(N/A)	17.28	J-1198
3742	J-2042	Forest	TRUE	1.00	1,613.62	1.48	1,614.09	20.00	21.01	20.00	20.00	J-2121	(N/A)	17.28	J-1198
4068	J-2193	Forest	TRUE	1.00	1,614.86	1.08	1,614.94	20.00	20.01	20.00	20.14	J-3024	(N/A)	17.28	J-1198
561	J-320	Forest	TRUE	1.00	1,615.07	1.08	1,615.14	20.00	56.45	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6497	J-350														

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2485	J-1333	Forest	TRUE	1.00	1,624.04	1.48	1,624.52	20.00	39.86	20.00	20.00	J-941	(N/A)	17.28	J-1198
5989	J-3207	Forest	TRUE	1.00	1,625.70	1.88	1,626.58	20.00	31.44	20.00	20.00	J-3204	(N/A)	17.28	J-1198
5988	J-3206	Forest	TRUE	1.00	1,625.70	1.08	1,625.78	20.00	32.17	20.00	20.00	J-3204	(N/A)	17.28	J-1198
6312	J-3399	Forest	TRUE	1.00	1,625.88	1.08	1,625.96	20.00	20.00	20.00	21.04	J-2181	(N/A)	17.28	J-1198
1440	J-721	Forest	TRUE	1.00	1,626.99	1.08	1,627.07	20.00	56.82	20.00	20.00	J-941	(N/A)	17.28	J-1198
4880	J-2572	Forest	TRUE	1.00	1,626.99	1.08	1,627.07	20.00	57.14	20.00	20.00	J-941	(N/A)	17.28	J-1198
7376	J-3983	Forest	TRUE	1.00	1,626.99	1.48	1,627.47	20.00	57.48	20.00	20.00	J-941	(N/A)	17.28	J-1198
4879	J-2571	Forest	TRUE	1.00	1,626.99	1.08	1,627.07	20.00	56.72	20.00	20.00	J-941	(N/A)	17.28	J-1198
2597	J-1396	Forest	TRUE	1.00	1,627.57	1.48	1,628.05	20.00	20.02	20.00	21.75	J-1395	(N/A)	17.28	J-1198
2527	J-1356	Forest	TRUE	1.00	1,628.32	1.48	1,628.80	20.00	20.00	20.00	21.10	J-2919	(N/A)	17.28	J-1198
1441	J-722	Forest	TRUE	1.00	1,628.87	1.08	1,628.95	20.00	55.60	20.00	20.00	J-941	(N/A)	17.28	J-1198
5080	J-2689	Forest	TRUE	1.00	1,628.87	1.08	1,628.95	20.00	55.17	20.00	20.00	J-941	(N/A)	17.28	J-1198
5843	J-3126	Forest	TRUE	1.00	1,629.48	1.28	1,629.76	20.00	20.00	20.00	20.13	J-3200	(N/A)	17.28	J-1198
596	J-341	Forest	TRUE	1.00	1,630.63	1.08	1,630.70	20.00	62.17	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6492	J-3504	Forest	TRUE	1.00	1,631.19	2.28	1,632.48	20.00	36.14	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6493	J-3505	Forest	TRUE	1.00	1,631.19	1.68	1,631.87	20.00	35.31	20.00	20.00	J-3200	(N/A)	17.28	J-1198
2863	J-1552	Forest	TRUE	1.00	1,632.56	1.88	1,633.44	20.00	20.03	20.00	20.64	J-1717	(N/A)	17.28	J-1198
602	J-345	Forest	TRUE	1.00	1,632.82	1.08	1,632.90	20.00	20.62	20.00	20.00	J-3200	(N/A)	17.28	J-1198
2655	J-1430	Forest	TRUE	1.00	1,632.94	1.68	1,633.62	20.00	31.79	20.00	20.00	J-3425	(N/A)	17.28	J-1198
4042	J-2181	Forest	TRUE	1.00	1,634.10	2.48	1,635.58	20.00	20.29	20.00	20.06	J-3399	(N/A)	17.28	J-1198
262	J-131	Forest	TRUE	1.00	1,634.52	1.28	1,634.80	20.00	61.19	20.00	20.00	J-2919	(N/A)	17.28	J-1198
261	J-130	Forest	TRUE	1.00	1,634.52	1.08	1,634.60	20.00	61.31	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3111	J-1681	Forest	TRUE	1.00	1,635.31	1.08	1,635.38	20.00	45.71	20.00	20.01	J-941	(N/A)	17.28	J-1198
4980	J-2630	Forest	TRUE	1.00	1,635.33	1.08	1,635.41	20.00	45.26	20.00	20.01	J-941	(N/A)	17.28	J-1198
3112	J-1682	Forest	TRUE	1.00	1,635.34	1.08	1,635.42	20.00	45.11	20.00	20.01	J-941	(N/A)	17.28	J-1198
250	J-123	Forest	TRUE	1.00	1,635.63	1.48	1,636.10	20.00	27.16	20.00	20.01	J-3438	(N/A)	17.28	J-1198
249	J-122	Forest	TRUE	1.00	1,635.75	1.08	1,635.82	20.00	27.22	20.00	20.01	J-3438	(N/A)	17.28	J-1198
5210	J-2760	Forest	TRUE	1.00	1,635.76	1.28	1,636.04	20.00	26.95	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3539	J-1929	Forest	TRUE	1.00	1,635.94	1.08	1,636.01	20.00	51.68	20.00	20.00	J-941	(N/A)	17.28	J-1198
7397	J-3992	Forest	TRUE	1.00	1,635.94	10.60	1,645.53	20.00	51.10	20.00	20.00	J-941	(N/A)	17.28	J-1198
1422	J-710	Forest	TRUE	1.00	1,635.94	1.08	1,636.01	20.00	52.43	20.00	20.00	J-941	(N/A)	17.28	J-1198
3109	J-1680	Forest	TRUE	1.00	1,635.95	1.08	1,636.03	20.00	33.54	20.00	20.00	J-941	(N/A)	17.28	J-1198
5060	J-2678	Forest	TRUE	1.00	1,635.95	1.08	1,636.03	20.00	33.34	20.00	20.00	J-941	(N/A)	17.28	J-1198
3108	J-1679	Forest	TRUE	1.00	1,635.96	1.08	1,636.03	20.00	34.05	20.00	20.00	J-941	(N/A)	17.28	J-1198
5261	J-2791	Forest	TRUE	1.00	1,636.21	1.68	1,636.89	20.00	20.04	20.00	20.25	J-1717	(N/A)	17.28	J-1198
928	J-513	Forest	TRUE	1.00	1,636.56	1.08	1,636.64	20.00	62.47	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5404	J-2875	Forest	TRUE	1.00	1,636.78	1.28	1,637.06	20.00	50.70	20.00	20.00	J-941	(N/A)	17.28	J-1198
1423	J-711	Forest	TRUE	1.00	1,636.78	1.08	1,636.86	20.00	51.14	20.00	20.00	J-941	(N/A)	17.28	J-1198
6759	J-3662	Forest	TRUE	1.00	1,637.02	1.48	1,637.49	20.00	40.02	20.00	20.02	J-3438	(N/A)	17.28	J-1198
601	J-344	Forest	TRUE	1.00	1,637.04	1.68	1,637.72	20.00	21.58	20.00	20.00	J-3200	(N/A)	17.28	J-1198
7350	J-3976	Forest	TRUE	1.00	1,637.05	1.08	1,637.13	20.00	39.20	20.00	20.02	J-3438	(N/A)	17.28	J-1198
6760	J-3663	Forest	TRUE	1.00	1,637.07	1.08	1,637.15	20.00	38.71	20.00	20.02	J-3438	(N/A)	17.28	J-1198
7417	J-3999	Forest	TRUE	1.00	1,637.44	1.08	1,637.52	20.00	41.60	20.00	20.00	J-3438	(N/A)	17.28	J-1198
7416	J-3998	Forest	TRUE	1.00	1,637.44	1.48	1,637.92	20.00	42.03	20.00	20.00	J-3438	(N/A)	17.28	J-1198
7797	J-4120	Forest	TRUE	1.00	1,637.44	3.29	1,639.73	20.00	37.01	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3172	J-1717	Forest	TRUE	1.00	1,638.56	1.08	1,638.64	20.00	20.00	20.00	20.27	J-1552	(N/A)	17.28	J-1198
3791	J-2065	Forest	TRUE	1.00	1,639.77	1.48	1,640.25	20.00	21.93	20.00	20.03	J-1044	(N/A)	17.01	J-1198
5172	J-2740	Forest	TRUE	1.00	1,639.78	1.48	1,640.26	20.00	22.03	20.00	20.03	J-1044	(N/A)	17.01	J-1198
575	J-329	Forest	TRUE	1.00	1,640.89	1.08	1,640.96	20.00	23.55	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5333	J-2833	Forest	TRUE	1.00	1,640.90	1.08	1,640.98	20.00	22.98	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5049	J-2672	Forest	TRUE	1.00	1,640.99	1.08	1,641.07	20.00	64.86	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5048	J-2671	Forest	TRUE	1.00	1,640.99	1.68	1,641.67	20.00	64.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3683	J-2008	Forest	TRUE	1.00	1,641.75	1.68	1,642.43	20.00	20.01	20.00	22.15	J-2913	(N/A)	17.28	J-1198
576	J-330	Forest	TRUE	1.00	1,642.15	1.88	1,643.03	20.00	23.66	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6842	J-3712	Forest	TRUE	1.00	1,642.21	1.48	1,642.69	20.00	20.00	20.00	20.69	J-2029	(N/A)	17.28	J-1198
5337	J-2835	Forest	TRUE	1.00	1,644.82	1.88	1,645.70	20.00	20.00	20.00	20.38	J-2836	(N/A)	17.28	J-1198
5734	J-3064	Forest	TRUE	1.00	1,644.85	1.28	1,645.13	20.00	29.46	20.00	20.00	J-941	(N/A)	17.28	J-1198
1460	J-732	Forest	TRUE	1.00	1,644.85	1.08	1,644.93	20.00	58.15	20.00	20.00	J-941	(N/A)	17.28	J-1198
3850	J-2094	Forest	TRUE	1.00	1,644.86	1.08	1,644.93	20.00	30.10	20.00	20.00	J-941	(N/A)	17.28	J-1198
6609	J-3574	Forest	TRUE	1.00	1,645.80	1.28	1,646.08	20.00	31.48	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6608	J-3573	Forest	TRUE	1.00	1,645.81	1.08	1,645.88	20.00	30.23	20.00	20.00	J-3425	(N/A)	17.28	J-1198
4728	J-2487	Stewartsville	TRUE	1.00	1,645.83	1.11	1,645.95	20.00	21.92	20.00	20.06	J-4020	(N/A)	17.28	J-1198
4729	J-2488	Stewartsville	TRUE	1.00	1,645.87	1.40	1,646.27	20.00	22.29	20.00	20.06	J-4020	(N/A)	17.28	J-1198
6292	J-3387	Forest	TRUE	1.00	1,647.92	2.68	1,649.60	20.00	23.47	20.00	20.00	J-1167	(N/A)	17.28	J-1198
6293	J-3388	Forest	TRUE	1.00	1,647.92	2.28	1,649.20	20.00	22.90	20.00	20.00	J-1167	(N/A)	17.28	J-1198
6840	J-3711	Forest	TRUE	1.00	1,648.53	1.48	1,649.01	20.00	55.58	20.00	20.00	J-941	(N/A)	17.28	J-1198
7610	J-4065	Forest	TRUE	1.00	1,648.54	8.61	1,656.14	20.00	53.90	20.00	20.00	J-941	(N/A)	17.28	J-1198
6839	J-3710	Forest	TRUE	1.00	1,648.75	1.08	1,648.83	20.00	57.00	20.00	20.00	J-941	(N/A)	17.28	J-1198
1432	J-716	Forest	TRUE	1.00	1,648.75	1.08	1,648.83	20.00	61.53	20.00	20.00	J-941	(N/A)	17.28	J-1198
6693	J-3624	Forest	TRUE	1.00	1,649.83	1.08	1,649.91	20.00	20.02	20.00	21.07	J-1867	(N/A)	17.28	J-1198
3646	J-1988	Forest	TRUE	1.00	1,649.94	1.48	1,650.42	20.00	64.78	20.00	20.00	J-2045	(N/A)	14.79	J-1198
1433	J-717	Forest	TRUE	1.00	1,650.01	1.08	1,650.09	20.00	61.09	20.00	20.00	J-941	(N/A)	17.28	J-1198
5893	J-3153	Forest	TRUE	1.00	1,650.02	1.48	1,650.49	20.00	60.54	20.00	20.00	J-941	(N/A)	17.28	J-1198
7617	J-4068	Forest	TRUE	1.00	1,650.85	1.48	1,651.33	20.00	20.11	20.00	20.04	J-2836	(N/A)	17.28	J-1198
5338	J-2836	Forest	TRUE	1.00	1,651.57	1.48	1,652.04	20.00	20.00	20.00	20.22	J-2835	(N/A)	17.28	J-1198
1163	J-611	Forest	TRUE	1.00	1,651.76	1.48	1,652.24	20.00	28.51	20.00	20.01	J-3200	(N/A)	17.28	J-1198
5051	J-2673	Forest	TRUE	1.00	1,651.79	1.28	1,652.07	20.00	28.01	20.00	20.01	J-3200	(N/A)	17.28	J-1198
4498	J-2356	Forest	TRUE	1.00	1,652.24	1.08	1,652.31	20.00	62.95	20.00	20.00	J-2919	(N/A)	17.28	J

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7890	J-4140	Forest	TRUE	1.00	1,656.44	1.28	1,656.72	20.00	44.52	20.00	20.00	J-941	(N/A)	17.28	J-1198
7792	J-4118	Forest	TRUE	1.00	1,656.82	1.48	1,657.30	20.00	32.09	20.00	20.00	J-941	(N/A)	17.28	J-1198
915	J-509	Forest	TRUE	1.00	1,656.82	1.48	1,657.30	20.00	63.08	20.00	20.00	J-941	(N/A)	17.28	J-1198
8114	J-4168	Forest	TRUE	1.00	1,656.82	1.28	1,657.10	20.00	30.97	20.00	20.00	J-941	(N/A)	17.28	J-1198
8475	J-4189	Forest	TRUE	1.00	1,656.82	1.28	1,657.10	20.00	32.66	20.00	20.00	J-941	(N/A)	17.28	J-1198
6332	J-3411	Forest	TRUE	1.00	1,656.82	1.08	1,656.90	20.00	33.00	20.00	20.00	J-941	(N/A)	17.28	J-1198
6331	J-3410	Forest	TRUE	1.00	1,656.83	1.28	1,657.11	20.00	33.59	20.00	20.00	J-941	(N/A)	17.28	J-1198
7578	J-4055	Forest	TRUE	1.00	1,656.85	1.08	1,656.93	20.00	39.01	20.00	20.00	J-941	(N/A)	17.28	J-1198
6774	J-3671	Forest	TRUE	1.00	1,656.85	1.28	1,657.13	20.00	39.25	20.00	20.00	J-941	(N/A)	17.28	J-1198
7092	J-3855	Forest	TRUE	1.00	1,656.97	1.28	1,657.25	20.00	20.02	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4159	J-2233	Forest	TRUE	1.00	1,658.33	2.28	1,659.61	20.00	20.88	20.00	20.00	J-3761	(N/A)	17.28	J-1198
3430	J-1867	Forest	TRUE	1.00	1,659.36	1.28	1,659.64	20.00	20.01	20.00	20.01	J-3624	(N/A)	17.28	J-1198
6816	J-3696	Lakes	TRUE	1.00	1,659.74	1.20	1,659.94	20.00	20.54	20.00	20.03	J-1587	(N/A)	17.28	J-1198
3555	J-1938	Lakes	TRUE	1.00	1,659.80	1.20	1,660.00	20.00	21.27	20.00	20.03	J-1587	(N/A)	17.28	J-1198
5997	J-3211	Forest	TRUE	1.00	1,661.30	1.68	1,661.98	20.00	52.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
897	J-503	Forest	TRUE	1.00	1,661.31	1.28	1,661.59	20.00	54.55	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5349	J-2842	Forest	TRUE	1.00	1,661.86	1.88	1,662.74	20.00	20.01	20.00	20.68	J-2843	(N/A)	17.28	J-1198
4057	J-2188	Lakes	TRUE	1.00	1,663.66	1.72	1,664.38	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6255	J-3366	Forest	TRUE	1.00	1,664.02	1.68	1,664.70	20.00	30.39	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6256	J-3367	Forest	TRUE	1.00	1,664.02	1.28	1,664.29	20.00	29.56	20.00	20.00	J-3200	(N/A)	17.28	J-1198
1033	J-561	Forest	TRUE	1.00	1,664.02	1.68	1,664.70	20.00	31.57	20.00	20.00	J-3200	(N/A)	17.28	J-1198
724	J-417	Forest	TRUE	1.00	1,665.11	1.88	1,665.99	20.00	30.26	20.00	20.00	J-2919	(N/A)	17.28	J-1198
555	J-316	Forest	TRUE	1.00	1,666.97	1.48	1,667.45	20.00	32.06	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4709	J-2476	Forest	TRUE	1.00	1,666.99	1.08	1,667.07	20.00	31.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
556	J-317	Forest	TRUE	1.00	1,667.86	1.68	1,668.53	20.00	32.26	20.00	20.00	J-2919	(N/A)	17.28	J-1198
50	J-15	Forest	TRUE	1.00	1,668.14	1.08	1,668.22	20.00	55.82	20.00	20.00	J-941	(N/A)	17.28	J-1198
5700	J-3044	Forest	TRUE	1.00	1,668.47	1.48	1,668.95	20.00	32.61	20.00	20.00	J-3204	(N/A)	17.28	J-1198
5699	J-3043	Forest	TRUE	1.00	1,668.48	1.08	1,668.55	20.00	33.61	20.00	20.00	J-3204	(N/A)	17.28	J-1198
5634	J-3005	Forest	TRUE	1.00	1,669.48	1.08	1,669.56	20.00	55.93	20.00	20.00	J-941	(N/A)	17.28	J-1198
51	J-16	Forest	TRUE	1.00	1,669.49	1.08	1,669.56	20.00	56.23	20.00	20.00	J-941	(N/A)	17.28	J-1198
5959	J-3190	Forest	TRUE	1.00	1,669.96	1.08	1,670.04	20.00	20.01	20.00	20.65	J-2087	(N/A)	17.28	J-1198
2689	J-1449	Forest	TRUE	1.00	1,670.51	3.29	1,672.80	20.00	20.00	20.00	20.16	J-2919	(N/A)	17.28	J-1198
278	J-141	Forest	TRUE	1.00	1,670.62	1.68	1,671.30	20.00	52.90	20.00	20.00	J-2919	(N/A)	17.28	J-1198
279	J-142	Forest	TRUE	1.00	1,670.62	1.28	1,670.90	20.00	52.85	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5350	J-2843	Forest	TRUE	1.00	1,671.26	3.49	1,673.75	20.00	20.11	20.00	20.05	J-2842	(N/A)	17.28	J-1198
5227	J-2771	Forest	TRUE	1.00	1,672.71	2.08	1,673.79	20.00	37.91	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5226	J-2770	Forest	TRUE	1.00	1,672.73	2.08	1,673.81	20.00	36.89	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6682	J-3617	Forest	TRUE	1.00	1,673.60	1.88	1,674.48	20.00	41.83	20.00	20.00	J-3438	(N/A)	17.28	J-1198
2645	J-1424	Forest	TRUE	1.00	1,673.60	1.48	1,674.08	20.00	43.26	20.00	20.00	J-3438	(N/A)	17.28	J-1198
7538	J-4043	Forest	TRUE	1.00	1,673.60	1.48	1,674.08	20.00	40.17	20.00	20.00	J-3438	(N/A)	17.28	J-1198
4915	J-2592	Forest	TRUE	1.00	1,673.70	1.88	1,674.58	20.00	50.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4916	J-2593	Forest	TRUE	1.00	1,673.70	1.28	1,673.98	20.00	49.75	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5822	J-3114	Forest	TRUE	1.00	1,674.51	1.68	1,675.19	20.00	41.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1119	J-596	Forest	TRUE	1.00	1,674.90	2.28	1,676.18	20.00	43.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7460	J-4013	Forest	TRUE	1.00	1,675.14	2.08	1,676.22	20.00	25.52	20.00	20.00	J-2280	(N/A)	17.28	J-1198
7461	J-4014	Forest	TRUE	1.00	1,675.14	1.08	1,675.22	20.00	24.32	20.00	20.00	J-2280	(N/A)	17.28	J-1198
3712	J-2025	Forest	TRUE	1.00	1,675.54	2.88	1,677.43	20.00	21.23	20.00	20.00	J-1378	(N/A)	17.28	J-1198
4638	J-2438	Stewartsville	TRUE	1.00	1,675.67	1.26	1,675.93	20.00	20.00	20.00	20.42	J-676	(N/A)	17.28	J-1198
5069	J-2683	Forest	TRUE	1.00	1,675.99	3.49	1,678.48	20.00	39.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5070	J-2684	Forest	TRUE	1.00	1,675.99	1.48	1,676.47	20.00	39.11	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3470	J-1890	Forest	TRUE	1.00	1,676.40	4.69	1,680.09	20.00	21.78	20.00	20.00	J-2033	(N/A)	17.28	J-1198
5902	J-3158	Forest	TRUE	1.00	1,676.42	1.48	1,676.90	20.00	20.00	20.00	21.18	J-923	(N/A)	17.28	J-1198
3551	J-1935	Forest	TRUE	1.00	1,677.88	1.88	1,678.76	20.00	59.37	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3552	J-1936	Forest	TRUE	1.00	1,678.06	1.28	1,678.34	20.00	50.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5065	J-2681	Forest	TRUE	1.00	1,678.06	3.09	1,680.15	20.00	50.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3838	J-2087	Forest	TRUE	1.00	1,678.28	1.48	1,678.76	20.00	20.00	20.00	20.13	J-3190	(N/A)	17.28	J-1198
5167	J-2737	Forest	TRUE	1.00	1,678.55	1.08	1,678.62	20.00	40.30	20.00	20.01	J-941	(N/A)	17.28	J-1198
5168	J-2738	Forest	TRUE	1.00	1,678.59	1.08	1,678.67	20.00	39.78	20.00	20.01	J-941	(N/A)	17.28	J-1198
2541	J-1364	Forest	TRUE	1.00	1,678.60	3.49	1,681.09	20.00	23.60	20.00	20.00	J-3722	(N/A)	17.28	J-1198
2617	J-1408	Forest	TRUE	1.00	1,678.63	1.08	1,678.71	20.00	39.58	20.00	20.01	J-941	(N/A)	17.28	J-1198
6705	J-3631	Forest	TRUE	1.00	1,678.70	1.08	1,678.78	20.00	40.98	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6704	J-3630	Forest	TRUE	1.00	1,678.70	1.48	1,679.18	20.00	41.71	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3583	J-1954	Forest	TRUE	1.00	1,678.75	1.08	1,678.83	20.00	44.86	20.00	20.01	J-941	(N/A)	17.28	J-1198
3469	J-1889	Forest	TRUE	1.00	1,678.93	2.28	1,680.21	20.00	25.63	20.00	20.00	J-941	(N/A)	17.28	J-1198
1141	J-603	Forest	TRUE	1.00	1,679.10	1.08	1,679.18	20.00	80.69	20.00	20.00	J-941	(N/A)	17.28	J-1198
914	J-508	Forest	TRUE	1.00	1,679.11	1.88	1,679.99	20.00	69.68	20.00	20.00	J-941	(N/A)	17.28	J-1198
281	J-143	Forest	TRUE	1.00	1,679.11	1.28	1,679.38	20.00	85.18	20.00	20.00	J-941	(N/A)	17.28	J-1198
1466	J-735	Forest	TRUE	1.00	1,679.11	5.36	1,683.47	20.00	77.61	20.00	20.00	J-941	(N/A)	17.28	J-1198
4850	J-2555	Forest	TRUE	1.00	1,679.11	1.28	1,679.39	20.00	84.97	20.00	20.00	J-941	(N/A)	17.28	J-1198
375	J-203	Forest	TRUE	1.00	1,679.11	1.08	1,679.19	20.00	85.42	20.00	20.00	J-941	(N/A)	17.28	J-1198
282	J-144	Forest	TRUE	1.00	1,679.11	1.28	1,679.39	20.00	84.96	20.00	20.00	J-941	(N/A)	17.28	J-1198
6633	J-3589	Forest	TRUE	1.00	1,679.22	1.08	1,679.30	20.00	29.15	20.00	20.00	J-941	(N/A)	17.28	J-1198
6632	J-3588	Forest	TRUE	1.00	1,679.22	1.28	1,679.50	20.00	29.88	20.00	20.00	J-941	(N/A)	17.28	J-1198
8062	J-4163	Forest	TRUE	1.00	1,679.22	4.32	1,682.54	20.00	64.04	20.00	20.00	J-941	(N/A)	17.28	J-1198
2900	J-1571	Forest	TRUE	1.00	1,679.25	3.09	1,681.33	20.00	36.82	20.00	20.00	J-941	(N/A)	17.28	J-1198
3511	J-1915	Forest	TRUE	1.00	1,679.27	1.48	1,679.74	20.00	62.23	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2868	J-1554	Forest	TRUE	1.00	1,679.93	2.28	1,681.21	20.00	61.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5402	J-2874	Forest	TRUE	1.00	1,679.96	1.48	1,680.44	20.00	20.00	20.00	20.69	J-2873	(N/A)	17.28	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2674	J-1440	Forest	TRUE	1.00	1,683.10	1.28	1,683.37	20.00	30.93	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4771	J-2511	Forest	TRUE	1.00	1,683.38	1.08	1,683.45	20.00	28.60	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3497	J-1906	Forest	TRUE	1.00	1,683.38	1.28	1,683.65	20.00	28.66	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7246	J-3933	Forest	TRUE	1.00	1,684.43	1.08	1,684.51	20.00	33.73	20.00	20.00	J-3926	(N/A)	17.28	J-1198
7439	J-4007	Forest	TRUE	1.00	1,684.44	1.48	1,684.92	20.00	32.04	20.00	20.00	J-3926	(N/A)	17.28	J-1198
7524	J-4037	Forest	TRUE	1.00	1,684.44	1.08	1,684.52	20.00	32.01	20.00	20.00	J-3926	(N/A)	17.28	J-1198
7520	J-4036	Forest	TRUE	1.00	1,684.47	1.08	1,684.54	20.00	27.85	20.00	20.00	J-3926	(N/A)	17.28	J-1198
7519	J-4035	Forest	TRUE	1.00	1,684.47	1.08	1,684.54	20.00	27.52	20.00	20.00	J-3926	(N/A)	17.28	J-1198
229	J-109	Forest	TRUE	1.00	1,684.62	1.08	1,684.69	20.00	50.92	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4802	J-2528	Forest	TRUE	1.00	1,684.62	1.08	1,684.70	20.00	50.26	20.00	20.01	J-2919	(N/A)	17.28	J-1198
228	J-108	Forest	TRUE	1.00	1,684.62	1.08	1,684.70	20.00	50.90	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4672	J-2456	Forest	TRUE	1.00	1,684.78	2.68	1,686.47	20.00	20.02	20.00	20.42	J-1773	(N/A)	17.28	J-1198
684	J-394	Stewartsville	TRUE	1.00	1,684.99	1.11	1,685.11	20.00	106.88	20.00	20.00	J-676	(N/A)	17.28	J-1198
671	J-387	Stewartsville	TRUE	1.00	1,684.99	1.11	1,685.11	20.00	105.46	20.00	20.00	J-676	(N/A)	17.28	J-1198
6536	J-3529	Stewartsville	TRUE	1.00	1,685.00	1.11	1,685.11	20.00	105.74	20.00	20.00	J-676	(N/A)	17.28	J-1198
1022	J-556	Stewartsville	TRUE	1.00	1,685.00	1.26	1,685.26	20.00	99.83	20.00	20.00	J-676	(N/A)	17.28	J-1198
4625	J-2430	Stewartsville	TRUE	1.00	1,685.00	1.11	1,685.11	20.00	99.29	20.00	20.00	J-676	(N/A)	17.28	J-1198
815	J-461	Stewartsville	TRUE	1.00	1,685.00	1.26	1,685.26	20.00	94.83	20.00	20.00	J-676	(N/A)	17.28	J-1198
672	J-388	Stewartsville	TRUE	1.00	1,685.00	1.69	1,685.69	20.00	104.32	20.00	20.00	J-676	(N/A)	17.28	J-1198
1261	J-655	Stewartsville	TRUE	1.00	1,685.02	1.26	1,685.28	20.00	90.98	20.00	20.00	J-676	(N/A)	17.28	J-1198
4644	J-2441	Stewartsville	TRUE	1.00	1,685.02	1.11	1,685.13	20.00	90.74	20.00	20.00	J-676	(N/A)	17.28	J-1198
6857	J-3720	Stewartsville	TRUE	1.00	1,685.05	2.36	1,686.41	20.00	74.82	20.00	20.00	J-676	(N/A)	17.28	J-1198
6856	J-3719	Stewartsville	TRUE	1.00	1,685.05	1.40	1,685.45	20.00	73.59	20.00	20.00	J-676	(N/A)	17.28	J-1198
4488	J-2351	Stewartsville	TRUE	1.00	1,685.05	1.11	1,685.16	20.00	64.42	20.00	20.00	J-676	(N/A)	17.28	J-1198
846	J-477	Stewartsville	TRUE	1.00	1,685.05	1.40	1,685.45	20.00	64.64	20.00	20.00	J-676	(N/A)	17.28	J-1198
4156	J-2231	Stewartsville	TRUE	1.00	1,685.05	1.42	1,685.47	20.00	70.41	20.00	20.00	J-676	(N/A)	17.28	J-1198
1039	J-564	Forest	TRUE	1.00	1,685.05	1.08	1,685.13	20.00	36.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
623	J-357	Stewartsville	TRUE	1.00	1,685.06	1.26	1,685.32	20.00	56.40	20.00	20.00	J-676	(N/A)	17.28	J-1198
624	J-358	Stewartsville	TRUE	1.00	1,685.06	1.11	1,685.17	20.00	55.74	20.00	20.00	J-676	(N/A)	17.28	J-1198
4309	J-2284	Stewartsville	TRUE	1.00	1,685.07	2.12	1,686.19	20.00	56.85	20.00	20.00	J-676	(N/A)	17.28	J-1198
223	J-105	Stewartsville	TRUE	1.00	1,685.07	1.11	1,685.19	20.00	46.36	20.00	20.00	J-676	(N/A)	17.28	J-1198
341	J-181	Stewartsville	TRUE	1.00	1,685.07	1.11	1,685.19	20.00	44.23	20.00	20.00	J-676	(N/A)	17.28	J-1198
340	J-180	Stewartsville	TRUE	1.00	1,685.07	1.11	1,685.19	20.00	44.24	20.00	20.00	J-676	(N/A)	17.28	J-1198
222	J-104	Stewartsville	TRUE	1.00	1,685.07	1.11	1,685.19	20.00	46.37	20.00	20.00	J-676	(N/A)	17.28	J-1198
586	J-335	Stewartsville	TRUE	1.00	1,685.07	1.11	1,685.19	20.00	44.17	20.00	20.00	J-676	(N/A)	17.28	J-1198
4619	J-2427	Stewartsville	TRUE	1.00	1,685.08	4.28	1,688.36	20.00	43.73	20.00	20.00	J-676	(N/A)	17.28	J-1198
526	J-298	Stewartsville	TRUE	1.00	1,685.08	1.26	1,685.33	20.00	39.90	20.00	20.00	J-676	(N/A)	17.28	J-1198
527	J-299	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.19	20.00	39.40	20.00	20.00	J-676	(N/A)	17.28	J-1198
7054	J-3834	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.19	20.00	35.74	20.00	20.00	J-676	(N/A)	17.28	J-1198
1087	J-584	Stewartsville	TRUE	1.00	1,685.08	1.55	1,685.63	20.00	34.34	20.00	20.00	J-676	(N/A)	17.28	J-1198
827	J-468	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.19	20.00	34.25	20.00	20.00	J-676	(N/A)	17.28	J-1198
4520	J-2369	Stewartsville	TRUE	1.00	1,685.08	1.40	1,685.48	20.00	33.82	20.00	20.00	J-676	(N/A)	17.28	J-1198
321	J-168	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.19	20.00	32.48	20.00	20.00	J-676	(N/A)	17.28	J-1198
322	J-169	Stewartsville	TRUE	1.00	1,685.08	1.40	1,685.48	20.00	33.00	20.00	20.00	J-676	(N/A)	17.28	J-1198
5965	J-3193	Stewartsville	TRUE	1.00	1,685.08	1.26	1,685.34	20.00	33.48	20.00	20.00	J-676	(N/A)	17.28	J-1198
4943	J-2609	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.20	20.00	30.58	20.00	20.00	J-676	(N/A)	17.28	J-1198
1055	J-571	Stewartsville	TRUE	1.00	1,685.08	1.55	1,685.63	20.00	30.83	20.00	20.00	J-676	(N/A)	17.28	J-1198
799	J-454	Stewartsville	TRUE	1.00	1,685.08	1.40	1,685.49	20.00	35.98	20.00	20.00	J-676	(N/A)	17.28	J-1198
798	J-453	Stewartsville	TRUE	1.00	1,685.08	1.55	1,685.63	20.00	29.64	20.00	20.00	J-676	(N/A)	17.28	J-1198
4911	J-2590	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.20	20.00	38.61	20.00	20.00	J-676	(N/A)	17.28	J-1198
4543	J-2382	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.20	20.00	51.33	20.00	20.00	J-676	(N/A)	17.28	J-1198
509	J-287	Stewartsville	TRUE	1.00	1,685.08	1.26	1,685.34	20.00	50.41	20.00	20.00	J-676	(N/A)	17.28	J-1198
4544	J-2383	Stewartsville	TRUE	1.00	1,685.08	1.11	1,685.20	20.00	51.07	20.00	20.00	J-676	(N/A)	17.28	J-1198
508	J-286	Stewartsville	TRUE	1.00	1,685.09	1.26	1,685.34	20.00	51.51	20.00	20.00	J-676	(N/A)	17.28	J-1198
1098	J-589	Stewartsville	TRUE	1.00	1,685.09	1.26	1,685.34	20.00	39.21	20.00	20.00	J-676	(N/A)	17.28	J-1198
5546	J-2954	Stewartsville	TRUE	1.00	1,685.09	1.11	1,685.20	20.00	35.39	20.00	20.00	J-676	(N/A)	17.28	J-1198
2662	J-1434	Forest	TRUE	1.00	1,685.11	1.88	1,685.99	20.00	36.05	20.00	20.00	J-2919	(N/A)	17.28	J-1198
470	J-263	Forest	TRUE	1.00	1,685.20	1.68	1,685.87	20.00	49.52	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6568	J-3550	Forest	TRUE	1.00	1,685.40	1.08	1,685.48	20.00	33.96	20.00	20.00	J-3926	(N/A)	17.28	J-1198
6567	J-3549	Forest	TRUE	1.00	1,685.42	2.88	1,687.30	20.00	32.39	20.00	20.00	J-3926	(N/A)	17.28	J-1198
4974	J-2627	Forest	TRUE	1.00	1,685.42	1.08	1,685.50	20.00	63.75	20.00	20.00	J-941	(N/A)	17.28	J-1198
1476	J-740	Forest	TRUE	1.00	1,685.43	1.08	1,685.50	20.00	64.22	20.00	20.00	J-941	(N/A)	17.28	J-1198
4538	J-2379	Forest	TRUE	1.00	1,686.21	1.68	1,686.89	20.00	41.41	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3352	J-1824	Forest	TRUE	1.00	1,686.22	1.48	1,686.70	20.00	41.33	20.00	20.00	J-2919	(N/A)	17.28	J-1198
995	J-545	Forest	TRUE	1.00	1,686.22	1.48	1,686.70	20.00	54.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5791	J-3096	Forest	TRUE	1.00	1,686.22	2.48	1,687.71	20.00	53.96	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1885	J-980	Forest	TRUE	1.00	1,686.40	1.48	1,686.88	20.00	20.01	20.00	20.93	J-1739	(N/A)	17.00	J-1198
3351	J-1823	Forest	TRUE	1.00	1,686.56	2.28	1,687.84	20.00	42.28	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3735	J-2038	Forest	TRUE	1.00	1,686.91	2.08	1,688.00	20.00	20.01	20.00	23.38	J-1776	(N/A)	17.28	J-1198
1797	J-923	Forest	TRUE	1.00	1,687.15	1.28	1,687.43	20.00	20.48	20.00	20.00	J-3158	(N/A)	17.28	J-1198
3262	J-1773	Forest	TRUE	1.00	1,689.28	1.08	1,689.36	20.00	20.00	20.00	20.00	J-2456	(N/A)	17.28	J-1198
3901	J-2118	Forest	TRUE	1.00	1,690.05	2.88	1,691.94	20.00	39.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1390	J-694	Forest	TRUE	1.00	1,690.55	3.29	1,692.83	20.00	35.02	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6731	J-3646	Forest	TRUE	1.00	1,690.63	1.28	1,690.91	20.00	33.92	20.00	20.01	J-2919	(N/A)	17.28	J-1198
8496	J-4201	Forest	TRUE	1.00	1,690.86	1.28	1,691.14	20.00	66.31	20.00	20.00	J-941	(N/A)	17.28	J-1198
1464	J-734	Forest	TRUE	1.00	1,690.86	1.28	1,691.14	20.00	63.46	20.00	20.00	J-941	(N/A)	17.28	J-1198
6341	J-3417	Forest	TRUE	1.00	1,690.86	1.08	1,690.94	20.00	61.70	20.00	20.00	J-941	(N/A)	17.28	J-1198
8495	J-4200	Forest	TRUE	1.00	1,690.86	1.48	1,691.34	20.00	66.09	20.00	20.00</				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3968	J-2149	Forest	TRUE	1.00	1,694.46	1.68	1,695.14	20.00	43.20	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6748	J-3656	Forest	TRUE	1.00	1,694.54	1.08	1,694.62	20.00	42.10	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6747	J-3655	Forest	TRUE	1.00	1,694.55	2.08	1,695.63	20.00	40.75	20.00	20.00	J-2919	(N/A)	17.28	J-1198
884	J-497	Forest	TRUE	1.00	1,694.60	1.88	1,695.48	20.00	53.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
637	J-366	Forest	TRUE	1.00	1,694.82	1.28	1,695.09	20.00	47.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8483	J-4193	Forest	TRUE	1.00	1,694.82	1.48	1,695.30	20.00	49.72	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7742	J-4106	Forest	TRUE	1.00	1,695.08	1.88	1,695.96	20.00	31.95	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4571	J-2399	Forest	TRUE	1.00	1,695.20	1.08	1,695.28	20.00	57.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4570	J-2398	Forest	TRUE	1.00	1,695.20	1.48	1,695.68	20.00	57.95	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1457	J-730	Forest	TRUE	1.00	1,695.44	1.28	1,695.72	20.00	64.89	20.00	20.00	J-941	(N/A)	17.28	J-1198
4995	J-2639	Forest	TRUE	1.00	1,695.45	1.28	1,695.72	20.00	61.50	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4996	J-2640	Forest	TRUE	1.00	1,695.45	1.28	1,695.73	20.00	61.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3243	J-1761	Forest	TRUE	1.00	1,695.70	1.28	1,695.98	20.00	20.01	20.00	21.09	J-2339	(N/A)	16.99	J-1198
5104	J-2702	Forest	TRUE	1.00	1,695.77	1.68	1,696.45	20.00	27.48	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5103	J-2701	Forest	TRUE	1.00	1,695.77	1.68	1,696.45	20.00	28.09	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7909	J-4143	Forest	TRUE	1.00	1,695.78	1.68	1,696.46	20.00	23.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7741	J-4105	Forest	TRUE	1.00	1,695.80	1.68	1,696.48	20.00	37.10	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4836	J-2547	Forest	TRUE	1.00	1,695.83	1.08	1,695.91	20.00	51.75	20.00	20.00	J-2919	(N/A)	17.28	J-1198
907	J-507	Forest	TRUE	1.00	1,695.83	1.08	1,695.91	20.00	52.11	20.00	20.00	J-2919	(N/A)	17.28	J-1198
939	J-518	Forest	TRUE	1.00	1,696.72	1.28	1,697.00	20.00	57.53	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3429	J-1866	Forest	TRUE	1.00	1,697.37	1.28	1,697.65	20.00	21.11	20.00	20.04	J-3624	(N/A)	17.28	J-1198
2522	J-1353	Forest	TRUE	1.00	1,697.50	5.09	1,701.59	20.00	20.01	20.00	20.23	J-2919	(N/A)	17.28	J-1198
481	J-270	Forest	TRUE	1.00	1,697.69	1.08	1,697.77	20.00	45.72	20.00	20.01	J-2919	(N/A)	17.28	J-1198
480	J-269	Forest	TRUE	1.00	1,697.79	1.08	1,697.87	20.00	46.09	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5490	J-2923	Forest	TRUE	1.00	1,697.99	1.68	1,698.67	20.00	56.13	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1474	J-739	Forest	TRUE	1.00	1,698.00	1.08	1,698.07	20.00	56.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3207	J-1739	Forest	TRUE	1.00	1,698.62	1.08	1,698.69	20.00	20.02	20.00	20.11	J-980	(N/A)	16.99	J-1198
5544	J-2953	Forest	TRUE	1.00	1,699.19	1.08	1,699.27	20.00	66.43	20.00	20.00	J-941	(N/A)	17.28	J-1198
1458	J-731	Forest	TRUE	1.00	1,699.19	1.48	1,699.67	20.00	67.06	20.00	20.00	J-941	(N/A)	17.28	J-1198
5925	J-3171	Forest	TRUE	1.00	1,700.63	1.88	1,701.51	20.00	20.04	20.00	20.11	J-3170	(N/A)	17.28	J-1198
4014	J-2169	Forest	TRUE	1.00	1,700.83	2.08	1,701.91	20.00	33.68	20.00	20.01	J-3200	(N/A)	17.28	J-1198
3717	J-2028	Forest	TRUE	1.00	1,700.98	1.48	1,701.46	20.00	22.58	20.00	20.00	J-3171	(N/A)	17.28	J-1198
8513	J-4209	Forest	TRUE	1.00	1,700.98	1.68	1,701.66	20.00	23.03	20.00	20.00	J-3171	(N/A)	17.28	J-1198
4763	J-2506	Forest	TRUE	1.00	1,701.15	1.28	1,701.42	20.00	51.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
416	J-230	Forest	TRUE	1.00	1,701.56	1.28	1,701.84	20.00	51.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8502	J-4204	Forest	TRUE	1.00	1,701.83	1.08	1,701.91	20.00	63.79	20.00	20.00	J-2919	(N/A)	17.28	J-1198
850	J-479	Forest	TRUE	1.00	1,701.83	1.28	1,702.11	20.00	61.54	20.00	20.00	J-2919	(N/A)	17.28	J-1198
415	J-229	Forest	TRUE	1.00	1,701.95	1.28	1,702.23	20.00	52.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1478	J-741	Forest	TRUE	1.00	1,702.24	1.08	1,702.31	20.00	59.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4654	J-2446	Forest	TRUE	1.00	1,702.24	1.48	1,702.72	20.00	58.61	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7072	J-3844	Forest	TRUE	1.00	1,704.19	2.08	1,705.27	20.00	73.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7071	J-3843	Forest	TRUE	1.00	1,704.21	1.68	1,704.89	20.00	76.71	20.00	20.00	J-2919	(N/A)	17.28	J-1198
413	J-228	Lakes	TRUE	1.00	1,704.23	1.20	1,704.43	20.00	84.66	20.00	20.00	J-2323	(N/A)	17.28	J-1198
412	J-227	Lakes	TRUE	1.00	1,704.23	1.20	1,704.43	20.00	85.21	20.00	20.00	J-2323	(N/A)	17.28	J-1198
814	J-460	Stewartsville	TRUE	1.00	1,705.10	1.26	1,705.36	20.00	92.17	20.00	20.00	J-676	(N/A)	17.28	J-1198
4970	J-2625	Stewartsville	TRUE	1.00	1,705.11	1.11	1,705.22	20.00	91.09	20.00	20.00	J-676	(N/A)	17.28	J-1198
851	J-480	Forest	TRUE	1.00	1,705.34	1.08	1,705.41	20.00	63.85	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5170	J-2739	Forest	TRUE	1.00	1,705.34	1.08	1,705.42	20.00	63.38	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5767	J-3083	Forest	TRUE	1.00	1,705.80	1.28	1,706.07	20.00	20.00	20.00	20.82	J-2142	(N/A)	17.28	J-1198
1414	J-705	Forest	TRUE	1.00	1,705.92	1.08	1,705.99	20.00	67.28	20.00	20.00	J-941	(N/A)	17.28	J-1198
1462	J-733	Forest	TRUE	1.00	1,705.98	1.08	1,706.06	20.00	59.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4593	J-2412	Forest	TRUE	1.00	1,705.98	1.08	1,706.06	20.00	59.36	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1415	J-706	Forest	TRUE	1.00	1,706.03	1.48	1,706.51	20.00	67.27	20.00	20.00	J-941	(N/A)	17.28	J-1198
5776	J-3088	Forest	TRUE	1.00	1,706.03	1.08	1,706.11	20.00	66.55	20.00	20.00	J-941	(N/A)	17.28	J-1198
5120	J-2710	Forest	TRUE	1.00	1,706.04	1.08	1,706.12	20.00	22.71	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5121	J-2711	Forest	TRUE	1.00	1,706.05	1.28	1,706.32	20.00	22.46	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6474	J-3494	Forest	TRUE	1.00	1,706.26	1.68	1,706.94	20.00	20.05	20.00	20.76	J-1425	(N/A)	16.99	J-1198
550	J-313	Lakes	TRUE	1.00	1,706.90	1.72	1,707.62	20.00	88.48	20.00	20.05	J-2323	(N/A)	17.28	J-1198
6111	J-3279	Lakes	TRUE	1.00	1,706.97	1.29	1,707.25	20.00	87.17	20.00	20.05	J-2323	(N/A)	17.28	J-1198
5328	J-2830	Forest	TRUE	1.00	1,707.66	1.08	1,707.74	20.00	65.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5329	J-2831	Forest	TRUE	1.00	1,707.66	1.08	1,707.74	20.00	64.73	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1472	J-738	Forest	TRUE	1.00	1,708.44	1.08	1,708.52	20.00	71.62	20.00	20.00	J-941	(N/A)	17.28	J-1198
8523	J-4213	Forest	TRUE	1.00	1,708.44	7.12	1,714.56	20.00	64.81	20.00	20.00	J-941	(N/A)	17.28	J-1198
5216	J-2764	Forest	TRUE	1.00	1,708.55	1.08	1,708.63	20.00	67.46	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5215	J-2763	Forest	TRUE	1.00	1,708.55	1.28	1,708.83	20.00	68.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6948	J-3774	Forest	TRUE	1.00	1,708.65	1.28	1,708.92	20.00	55.85	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1420	J-709	Forest	TRUE	1.00	1,708.65	1.08	1,708.73	20.00	57.46	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1419	J-708	Forest	TRUE	1.00	1,709.09	1.28	1,709.37	20.00	57.11	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1428	J-714	Forest	TRUE	1.00	1,709.88	1.08	1,709.96	20.00	64.72	20.00	20.00	J-941	(N/A)	17.28	J-1198
1427	J-713	Forest	TRUE	1.00	1,709.88	1.08	1,709.96	20.00	66.71	20.00	20.00	J-941	(N/A)	17.28	J-1198
5809	J-3107	Forest	TRUE	1.00	1,709.88	1.08	1,709.96	20.00	66.02	20.00	20.00	J-941	(N/A)	17.28	J-1198
1438	J-720	Forest	TRUE	1.00	1,709.89	1.28	1,710.16	20.00	69.12	20.00	20.00	J-941	(N/A)	17.28	J-1198
968	J-532	Forest	TRUE	1.00	1,710.38	1.28	1,710.66	20.00	67.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2512	J-1347	Forest	TRUE	1.00	1,710.89	1.28	1,711.16	20.00	25.97	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7369	J-3981	Forest	TRUE	1.00	1,711.25	1.08	1,711.32	20.00	48.98	20.00	20.00	J-3904	(N/A)	16.99	J-1198
1436	J-719	Forest	TRUE	1.00	1,711.30	1.28	1,711.58	20.00	58.42	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2647	J-1425	Forest	TRUE	1.00	1,711.96	1.88	1,712.84	20.00	20.04	20.00	20.29	J-3494	(N/A)	16.99	J-1198
1435	J-718	Forest	TRUE	1.00	1,712.47	1.28	1,712.75	20.00	58.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198</

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3242	J-1760	Forest	TRUE	1.00	1,721.42	1.08	1,721.50	20.00	20.01	20.00	20.00	J-2339	(N/A)	16.99	J-1198
2577	J-1384	Forest	TRUE	1.00	1,721.48	1.08	1,721.56	20.00	62.27	20.00	20.00	J-3904	(N/A)	16.99	J-1198
7368	J-3980	Forest	TRUE	1.00	1,721.48	1.08	1,721.56	20.00	49.90	20.00	20.00	J-3904	(N/A)	16.99	J-1198
6243	J-3359	Forest	TRUE	1.00	1,721.48	1.08	1,721.56	20.00	57.92	20.00	20.00	J-3904	(N/A)	16.99	J-1198
7365	J-3979	Forest	TRUE	1.00	1,721.48	1.08	1,721.56	20.00	58.93	20.00	20.00	J-3904	(N/A)	16.99	J-1198
7827	J-4127	Forest	TRUE	1.00	1,721.48	1.68	1,722.16	20.00	54.95	20.00	20.00	J-3904	(N/A)	16.99	J-1198
7828	J-4128	Forest	TRUE	1.00	1,721.48	1.28	1,721.76	20.00	56.79	20.00	20.00	J-3904	(N/A)	16.99	J-1198
6242	J-3358	Forest	TRUE	1.00	1,721.49	1.28	1,721.76	20.00	58.45	20.00	20.00	J-3904	(N/A)	16.99	J-1198
7066	J-3840	Forest	TRUE	1.00	1,721.49	1.08	1,721.56	20.00	58.65	20.00	20.00	J-3904	(N/A)	16.99	J-1198
2753	J-1488	Forest	TRUE	1.00	1,721.49	1.28	1,721.76	20.00	55.32	20.00	20.00	J-3904	(N/A)	16.99	J-1198
4503	J-2359	Forest	TRUE	1.00	1,721.49	1.08	1,721.56	20.00	54.93	20.00	20.00	J-3904	(N/A)	16.99	J-1198
4127	J-2218	Forest	TRUE	1.00	1,722.16	2.28	1,723.44	20.00	26.84	20.00	20.00	J-2219	(N/A)	17.28	J-1198
5736	J-3065	Forest	TRUE	1.00	1,722.22	1.88	1,723.10	20.00	20.00	20.00	20.70	J-3066	(N/A)	17.28	J-1198
7374	J-3982	Forest	TRUE	1.00	1,722.84	1.28	1,723.12	20.00	34.00	20.00	20.00	J-3926	(N/A)	17.28	J-1198
6787	J-3679	Forest	TRUE	1.00	1,722.88	1.08	1,722.95	20.00	26.72	20.00	20.00	J-2219	(N/A)	17.28	J-1198
6788	J-3680	Forest	TRUE	1.00	1,722.88	1.48	1,723.36	20.00	25.58	20.00	20.00	J-2219	(N/A)	17.28	J-1198
6685	J-3619	Forest	TRUE	1.00	1,723.60	1.28	1,723.88	20.00	33.05	20.00	20.00	J-3204	(N/A)	17.28	J-1198
6684	J-3618	Forest	TRUE	1.00	1,723.60	1.28	1,723.88	20.00	33.86	20.00	20.00	J-3204	(N/A)	17.28	J-1198
1031	J-560	Forest	TRUE	1.00	1,723.97	1.28	1,724.25	20.00	71.98	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5076	J-2687	Forest	TRUE	1.00	1,723.97	1.28	1,724.25	20.00	71.50	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3714	J-2026	Forest	TRUE	1.00	1,724.90	1.48	1,725.38	20.00	20.01	20.00	20.54	J-3601	(N/A)	16.99	J-1198
5833	J-3120	Forest	TRUE	1.00	1,728.27	1.48	1,728.75	20.00	20.00	20.00	20.83	J-2203	(N/A)	17.28	J-1198
2607	J-1402	Forest	TRUE	1.00	1,728.81	1.88	1,729.69	20.00	45.88	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6557	J-3543	Forest	TRUE	1.00	1,728.81	1.48	1,729.29	20.00	43.04	20.00	20.00	J-3438	(N/A)	17.28	J-1198
7619	J-4069	Forest	TRUE	1.00	1,728.81	1.88	1,729.69	20.00	41.81	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6673	J-3612	Forest	TRUE	1.00	1,728.81	1.08	1,728.88	20.00	44.74	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6556	J-3542	Forest	TRUE	1.00	1,728.81	1.68	1,729.49	20.00	44.48	20.00	20.00	J-3438	(N/A)	17.28	J-1198
5737	J-3066	Forest	TRUE	1.00	1,730.77	1.88	1,731.65	20.00	20.00	20.00	20.03	J-3065	(N/A)	17.28	J-1198
6905	J-3749	Forest	TRUE	1.00	1,730.92	3.09	1,733.01	20.00	20.00	20.00	21.28	J-3914	(N/A)	17.28	J-1198
7357	J-3977	Forest	TRUE	1.00	1,731.50	1.08	1,731.58	20.00	23.09	20.00	20.03	J-1942	(N/A)	15.04	J-1198
3560	J-1941	Forest	TRUE	1.00	1,731.53	1.08	1,731.61	20.00	23.47	20.00	20.03	J-1942	(N/A)	15.04	J-1198
3911	J-2123	Forest	TRUE	1.00	1,732.37	1.48	1,732.85	20.00	20.02	20.00	20.22	J-3076	(N/A)	17.28	J-1198
3655	J-1994	Forest	TRUE	1.00	1,736.04	1.48	1,736.52	20.00	20.00	20.00	24.06	J-1197	(N/A)	16.98	J-1198
6878	J-3733	Forest	TRUE	1.00	1,736.27	1.48	1,736.75	20.00	38.87	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6877	J-3732	Forest	TRUE	1.00	1,736.27	2.28	1,737.55	20.00	40.18	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3322	J-1807	Forest	TRUE	1.00	1,738.37	1.28	1,738.65	20.00	20.01	20.00	21.63	J-1806	(N/A)	16.98	J-1198
2735	J-1477	Forest	TRUE	1.00	1,738.55	1.48	1,739.03	20.00	20.00	20.00	21.13	J-1786	(N/A)	16.98	J-1198
4087	J-2203	Forest	TRUE	1.00	1,738.81	1.88	1,739.69	20.00	20.15	20.00	20.05	J-3120	(N/A)	17.28	J-1198
6771	J-3669	Forest	TRUE	1.00	1,739.25	2.08	1,740.33	20.00	20.01	20.00	20.98	J-2114	(N/A)	17.28	J-1198
1085	J-583	Forest	TRUE	1.00	1,739.77	1.08	1,739.85	20.00	78.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4855	J-2558	Forest	TRUE	1.00	1,739.78	1.28	1,740.05	20.00	78.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7431	J-4004	Forest	TRUE	1.00	1,740.63	1.48	1,741.11	20.00	33.49	20.00	20.00	J-3926	(N/A)	17.28	J-1198
7574	J-4053	Forest	TRUE	1.00	1,740.64	1.08	1,740.72	20.00	32.93	20.00	20.00	J-3926	(N/A)	17.28	J-1198
6427	J-3467	Forest	TRUE	1.00	1,742.05	1.08	1,742.13	20.00	22.14	20.00	20.04	J-2113	(N/A)	15.01	J-1198
6426	J-3466	Forest	TRUE	1.00	1,742.05	1.08	1,742.13	20.00	23.44	20.00	20.04	J-2113	(N/A)	15.01	J-1198
3613	J-1970	Forest	TRUE	1.00	1,742.89	1.28	1,743.17	20.00	32.42	20.00	20.00	J-2113	(N/A)	15.01	J-1198
3764	J-2051	Forest	TRUE	1.00	1,745.86	1.28	1,746.14	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5435	J-2892	Forest	TRUE	1.00	1,747.78	1.68	1,748.46	20.00	20.00	20.00	20.14	J-1786	(N/A)	16.98	J-1198
3283	J-1786	Forest	TRUE	1.00	1,749.11	1.48	1,749.59	20.00	20.00	20.00	20.48	J-1477	(N/A)	16.98	J-1198
6605	J-3571	Forest	TRUE	1.00	1,750.46	1.48	1,750.94	20.00	20.00	20.00	21.10	J-3572	(N/A)	16.98	J-1198
3044	J-1638	Forest	TRUE	1.00	1,750.68	1.48	1,751.16	20.00	63.81	20.00	20.00	J-941	(N/A)	17.28	J-1198
3045	J-1639	Forest	TRUE	1.00	1,750.68	1.08	1,750.76	20.00	63.44	20.00	20.00	J-941	(N/A)	17.28	J-1198
44	J-11	Forest	TRUE	1.00	1,750.68	1.28	1,750.96	20.00	67.12	20.00	20.00	J-941	(N/A)	17.28	J-1198
6004	J-3215	Forest	TRUE	1.00	1,750.68	1.08	1,750.76	20.00	62.73	20.00	20.00	J-941	(N/A)	17.28	J-1198
45	J-12	Forest	TRUE	1.00	1,752.11	1.48	1,752.59	20.00	66.96	20.00	20.00	J-941	(N/A)	17.28	J-1198
5058	J-2677	Forest	TRUE	1.00	1,755.49	1.08	1,755.57	20.00	82.84	20.00	20.00	J-2919	(N/A)	17.28	J-1198
987	J-541	Forest	TRUE	1.00	1,755.50	1.08	1,755.58	20.00	83.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6514	J-3517	Forest	TRUE	1.00	1,756.12	1.48	1,756.60	20.00	20.01	20.00	20.32	J-2236	(N/A)	17.28	J-1198
2622	J-1411	Forest	TRUE	1.00	1,758.20	1.68	1,758.88	20.00	20.22	20.00	20.11	J-3571	(N/A)	16.98	J-1198
7209	J-3914	Forest	TRUE	1.00	1,758.26	1.28	1,758.54	20.00	20.00	20.00	20.26	J-3749	(N/A)	17.28	J-1198
2488	J-1335	Forest	TRUE	1.00	1,758.79	1.68	1,759.47	20.00	32.77	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6828	J-3703	Forest	TRUE	1.00	1,758.80	1.68	1,759.48	20.00	44.47	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6829	J-3704	Forest	TRUE	1.00	1,758.80	1.28	1,759.08	20.00	43.51	20.00	20.00	J-3200	(N/A)	17.28	J-1198
7606	J-4063	Forest	TRUE	1.00	1,758.80	1.48	1,759.28	20.00	46.91	20.00	20.00	J-3200	(N/A)	17.28	J-1198
6606	J-3572	Forest	TRUE	1.00	1,758.88	2.68	1,760.57	20.00	20.04	20.00	20.02	J-3571	(N/A)	16.98	J-1198
7932	J-4145	Forest	TRUE	1.00	1,759.48	1.08	1,759.55	20.00	45.08	20.00	20.01	J-4116	(N/A)	17.28	J-1198
8415	J-4177	Forest	TRUE	1.00	1,759.72	1.68	1,760.40	20.00	26.75	20.00	20.00	J-4116	(N/A)	17.28	J-1198
4166	J-2236	Forest	TRUE	1.00	1,761.30	2.68	1,762.98	20.00	20.00	20.00	20.70	J-3517	(N/A)	17.28	J-1198
3892	J-2114	Forest	TRUE	1.00	1,761.68	1.88	1,762.56	20.00	20.01	20.00	20.20	J-3669	(N/A)	17.28	J-1198
5521	J-2940	Forest	TRUE	1.00	1,761.83	1.28	1,762.11	20.00	20.00	20.00	20.57	J-2939	(N/A)	17.28	J-1198
6208	J-3337	Lakes	TRUE	1.00	1,762.03	1.20	1,762.23	20.00	78.70	20.00	20.00	J-2323	(N/A)	17.28	J-1198
1180	J-618	Lakes	TRUE	1.00	1,762.03	1.55	1,762.57	20.00	80.16	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6906	J-3750	Forest	TRUE	1.00	1,763.70	1.08	1,763.77	20.00	20.18	20.00	20.02	J-3914	(N/A)	17.28	J-1198
4682	J-2462	Forest	TRUE	1.00	1,764.69	1.88	1,765.57	20.00	20.00	20.00	20.42	J-1934	(N/A)	17.28	J-1198
4212	J-2253	Forest	TRUE	1.00	1,766.86	2.68	1,768.55	20.00	20.00	20.00	20.18	J-2939	(N/A)	17.28	J-1198
988	J-542	Forest	TRUE	1.00	1,767.86	1.08	1,767.94	20.00	74.63	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4751	J-2500	Forest	TRUE	1.00	1,767.86	1.08	1,767.94	20.00	74.17	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5520	J-2939	Forest	TRUE	1.00	1,768.26	1.68	1,768.94	20.00	20.00	20.00	20.06				

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2837	J-1537	Forest	TRUE	1.00	1,787.11	1.48	1,787.59	20.00	25.07	20.00	20.00	J-2253	(N/A)	17.28	J-1198
123	J-59	Forest	TRUE	1.00	1,788.92	1.48	1,789.39	20.00	60.94	20.00	20.00	J-941	(N/A)	17.28	J-1198
3154	J-1707	Forest	TRUE	1.00	1,788.92	1.48	1,789.39	20.00	60.36	20.00	20.00	J-941	(N/A)	17.28	J-1198
2498	J-1340	Forest	TRUE	1.00	1,789.30	1.08	1,789.38	20.00	20.01	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5236	J-2776	Forest	TRUE	1.00	1,790.39	1.88	1,791.27	20.00	23.18	20.00	20.00	J-2874	(N/A)	17.28	J-1198
5237	J-2777	Forest	TRUE	1.00	1,790.40	1.68	1,791.08	20.00	22.75	20.00	20.00	J-2874	(N/A)	17.28	J-1198
8039	J-4161	Forest	TRUE	1.00	1,791.15	1.28	1,791.43	20.00	20.00	20.00	22.30	J-2919	(N/A)	17.28	J-1198
5667	J-3025	Forest	TRUE	1.00	1,791.38	1.28	1,791.65	20.00	20.00	20.00	20.90	J-2019	(N/A)	17.28	J-1198
6807	J-3691	Forest	TRUE	1.00	1,791.38	1.88	1,792.26	20.00	20.01	20.00	21.73	J-1932	(N/A)	17.28	J-1198
643	J-370	Forest	TRUE	1.00	1,792.52	1.28	1,792.79	20.00	23.12	20.00	20.00	J-3855	(N/A)	17.28	J-1198
642	J-369	Forest	TRUE	1.00	1,792.52	1.08	1,792.60	20.00	21.30	20.00	20.00	J-3855	(N/A)	17.28	J-1198
4713	J-2478	Forest	TRUE	1.00	1,793.76	1.08	1,793.84	20.00	54.56	20.00	20.00	J-2919	(N/A)	17.28	J-1198
777	J-443	Forest	TRUE	1.00	1,793.77	1.08	1,793.84	20.00	55.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5652	J-3016	Lakes	TRUE	1.00	1,794.50	1.20	1,794.69	20.00	20.00	20.00	20.83	J-3015	(N/A)	17.28	J-1198
7593	J-4058	Forest	TRUE	1.00	1,794.95	2.28	1,796.23	20.00	26.65	20.00	20.00	J-2253	(N/A)	17.28	J-1198
6315	J-3401	Forest	TRUE	1.00	1,794.95	2.48	1,796.43	20.00	26.21	20.00	20.00	J-2253	(N/A)	17.28	J-1198
6314	J-3400	Forest	TRUE	1.00	1,794.95	1.68	1,795.63	20.00	26.30	20.00	20.00	J-2253	(N/A)	17.28	J-1198
7046	J-3829	Forest	TRUE	1.00	1,795.33	2.28	1,796.61	20.00	20.00	20.00	23.60	J-2083	(N/A)	17.28	J-1198
3480	J-1896	Lakes	TRUE	1.00	1,796.75	2.32	1,798.07	20.00	20.00	20.00	26.49	J-1642	(N/A)	17.28	J-1198
3567	J-1945	Forest	TRUE	1.00	1,796.87	2.88	1,798.75	20.00	33.98	20.00	20.00	J-2212	(N/A)	17.28	J-1198
564	J-322	Lakes	TRUE	1.00	1,797.36	1.46	1,797.82	20.00	87.29	20.00	20.05	J-2323	(N/A)	17.28	J-1198
5887	J-3150	Lakes	TRUE	1.00	1,797.42	1.20	1,797.62	20.00	86.20	20.00	20.04	J-2323	(N/A)	17.28	J-1198
7561	J-4051	Forest	TRUE	1.00	1,798.04	1.48	1,798.52	20.00	27.91	20.00	20.00	J-3330	(N/A)	17.28	J-1198
6352	J-3423	Forest	TRUE	1.00	1,798.05	1.08	1,798.13	20.00	26.48	20.00	20.00	J-3330	(N/A)	17.28	J-1198
6353	J-3424	Forest	TRUE	1.00	1,798.06	1.48	1,798.53	20.00	25.34	20.00	20.00	J-3330	(N/A)	17.28	J-1198
3738	J-2040	Forest	TRUE	1.00	1,798.71	1.68	1,799.39	20.00	20.03	20.00	20.16	J-2121	(N/A)	17.28	J-1198
6150	J-3302	Forest	TRUE	1.00	1,799.05	2.48	1,800.54	20.00	20.09	20.00	21.34	J-3303	(N/A)	17.28	J-1198
6151	J-3303	Forest	TRUE	1.00	1,799.83	1.88	1,800.71	20.00	20.38	20.00	20.00	J-3302	(N/A)	17.28	J-1198
5307	J-2817	Forest	TRUE	1.00	1,800.12	1.68	1,800.80	20.00	20.00	20.00	20.02	J-2818	(N/A)	17.28	J-1198
613	J-351	Forest	TRUE	1.00	1,800.21	1.48	1,800.68	20.00	49.34	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2503	J-1343	Forest	TRUE	1.00	1,800.46	1.28	1,800.74	20.00	20.00	20.00	24.04	J-1197	(N/A)	16.96	J-1198
7035	J-3823	Forest	TRUE	1.00	1,800.75	1.08	1,800.83	20.00	20.00	20.00	20.60	J-2919	(N/A)	17.28	J-1198
3180	J-1722	Lakes	TRUE	1.00	1,800.90	1.20	1,801.10	20.00	20.00	20.00	21.12	J-1723	(N/A)	17.28	J-1198
563	J-321	Lakes	TRUE	1.00	1,801.32	1.20	1,801.52	20.00	90.01	20.00	20.05	J-2323	(N/A)	17.28	J-1198
2425	J-1299	Lakes	TRUE	1.00	1,801.39	1.29	1,801.68	20.00	59.14	20.00	20.05	J-2323	(N/A)	17.28	J-1198
2424	J-1298	Lakes	TRUE	1.00	1,802.05	1.20	1,802.25	20.00	55.01	20.00	20.00	J-2323	(N/A)	17.28	J-1198
2275	J-1217	Forest	TRUE	1.00	1,802.46	1.88	1,803.35	20.00	20.00	20.00	20.12	J-2820	(N/A)	17.28	J-1198
3701	J-2019	Forest	TRUE	1.00	1,802.96	1.08	1,803.03	20.00	20.16	20.00	20.04	J-3025	(N/A)	17.28	J-1198
8517	J-4210	Forest	TRUE	1.00	1,803.16	1.48	1,803.64	20.00	44.51	20.00	20.00	J-2919	(N/A)	17.28	J-1198
614	J-352	Forest	TRUE	1.00	1,803.32	1.28	1,803.59	20.00	47.14	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5651	J-3015	Lakes	TRUE	1.00	1,803.55	1.37	1,803.92	20.00	20.11	20.00	20.07	J-3016	(N/A)	17.28	J-1198
5526	J-2943	Forest	TRUE	1.00	1,804.05	2.48	1,805.54	20.00	22.49	20.00	20.00	J-2253	(N/A)	17.28	J-1198
5527	J-2944	Forest	TRUE	1.00	1,804.05	1.48	1,804.53	20.00	21.97	20.00	20.00	J-2253	(N/A)	17.28	J-1198
3544	J-1932	Forest	TRUE	1.00	1,804.84	1.88	1,805.72	20.00	20.47	20.00	20.06	J-3691	(N/A)	17.28	J-1198
2572	J-1381	Forest	TRUE	1.00	1,805.43	1.08	1,805.51	20.00	24.04	20.00	20.00	J-1115	(N/A)	17.28	J-1198
6424	J-3465	Forest	TRUE	1.00	1,805.44	1.08	1,805.51	20.00	23.20	20.00	20.00	J-1115	(N/A)	17.28	J-1198
881	J-495	Stewartsville	TRUE	1.00	1,806.14	1.11	1,806.25	20.00	70.99	20.00	20.00	J-676	(N/A)	17.28	J-1198
4694	J-2468	Lakes	TRUE	1.00	1,806.53	1.37	1,806.90	20.00	20.00	20.00	20.31	J-1722	(N/A)	17.28	J-1198
5760	J-3079	Forest	TRUE	1.00	1,806.53	1.88	1,807.41	20.00	56.31	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5761	J-3080	Forest	TRUE	1.00	1,806.53	1.48	1,807.01	20.00	55.68	20.00	20.00	J-3200	(N/A)	17.28	J-1198
3181	J-1723	Lakes	TRUE	1.00	1,807.98	2.06	1,809.05	20.00	20.19	20.00	20.11	J-1722	(N/A)	17.28	J-1198
4642	J-2440	Forest	TRUE	1.00	1,808.57	1.08	1,808.64	20.00	45.63	20.00	20.00	J-2919	(N/A)	17.28	J-1198
744	J-426	Forest	TRUE	1.00	1,808.73	1.08	1,808.81	20.00	46.20	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6642	J-3594	Forest	TRUE	1.00	1,810.59	2.48	1,812.07	20.00	56.53	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6641	J-3593	Forest	TRUE	1.00	1,810.59	2.48	1,812.07	20.00	56.48	20.00	20.00	J-3438	(N/A)	17.28	J-1198
5155	J-2730	Forest	TRUE	1.00	1,811.06	1.88	1,811.94	20.00	20.05	20.00	20.54	J-2729	(N/A)	17.28	J-1198
515	J-291	Lakes	TRUE	1.00	1,811.83	1.20	1,812.03	20.00	83.48	20.00	20.00	J-2323	(N/A)	17.28	J-1198
3492	J-1903	Lakes	TRUE	1.00	1,812.00	2.41	1,813.41	20.00	20.00	20.00	25.21	J-1896	(N/A)	17.28	J-1198
7770	J-4112	Forest	TRUE	1.00	1,814.20	1.88	1,815.08	20.00	20.96	20.00	20.00	J-2939	(N/A)	17.28	J-1198
6700	J-3628	Forest	TRUE	1.00	1,814.32	1.08	1,814.40	20.00	61.11	20.00	20.00	J-941	(N/A)	17.28	J-1198
124	J-60	Forest	TRUE	1.00	1,814.33	1.28	1,814.60	20.00	61.99	20.00	20.00	J-941	(N/A)	17.28	J-1198
514	J-290	Lakes	TRUE	1.00	1,814.51	1.20	1,814.70	20.00	85.32	20.00	20.04	J-2323	(N/A)	17.28	J-1198
6821	J-3699	Forest	TRUE	1.00	1,814.99	1.68	1,815.67	20.00	20.00	20.00	21.36	J-1993	(N/A)	16.96	J-1198
6658	J-3603	Lakes	TRUE	1.00	1,815.09	1.20	1,815.29	20.00	83.35	20.00	20.00	J-2323	(N/A)	17.28	J-1198
7726	J-4100	Forest	TRUE	1.00	1,815.82	1.28	1,816.09	20.00	60.20	20.00	20.00	J-1197	(N/A)	12.92	J-1198
3909	J-2122	Forest	TRUE	1.00	1,815.82	1.48	1,816.30	20.00	62.91	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5154	J-2729	Forest	TRUE	1.00	1,816.35	1.48	1,816.83	20.00	20.04	20.00	20.18	J-2730	(N/A)	17.28	J-1198
6199	J-3331	Forest	TRUE	1.00	1,817.23	2.08	1,818.31	20.00	26.18	20.00	20.00	J-4167	(N/A)	17.28	J-1198
6200	J-3332	Forest	TRUE	1.00	1,817.23	1.88	1,818.11	20.00	25.60	20.00	20.00	J-4167	(N/A)	17.28	J-1198
6410	J-3457	Forest	TRUE	1.00	1,817.89	1.48	1,818.37	20.00	20.01	20.00	21.09	J-1674	(N/A)	17.28	J-1198
4868	J-2565	Forest	TRUE	1.00	1,818.00	1.28	1,818.27	20.00	20.03	20.00	20.58	J-1463	(N/A)	17.28	J-1198
3828	J-2082	Forest	TRUE	1.00	1,820.28	2.28	1,821.56	20.00	20.07	20.00	20.32	J-2729	(N/A)	17.28	J-1198
667	J-385	Forest	TRUE	1.00	1,822.07	1.48	1,822.55	20.00	28.29	20.00	20.00	J-3855	(N/A)	17.28	J-1198
6078	J-3260	Forest	TRUE	1.00	1,822.08	1.08	1,822.16	20.00	27.38	20.00	20.00	J-3855	(N/A)	17.28	J-1198
1787	J-916	Forest	TRUE	1.00	1,822.20	1.08	1,822.28	20.00	21.27	20.00	20.00	J-917	(N/A)	17.28	J-1198
3100	J-1674	Forest	TRUE	1.00	1,822.41	1.48	1,822.89	20.00	20.01	20.00	20.70	J-3457	(N/A)	17.28	J-1198
7761	J-4108	Forest	TRUE	1.00	1,823.43	2.08	1,824.51	20.00	34.96	20.00	20.01	J-4116	(N/A)	17.28	J-1198
6818	J-3697	Forest	TRUE	1.00	1,823.45	1.48	1,823.93	20.00	33.90	20.00	20.00	J-4116	(N/A		

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5016	J-2651	Forest	TRUE	1.00	1,833.87	1.08	1,833.95	20.00	40.22	20.00	20.01	J-2919	(N/A)	17.28	J-1198
301	J-155	Forest	TRUE	1.00	1,833.90	1.08	1,833.98	20.00	39.32	20.00	20.01	J-2919	(N/A)	17.28	J-1198
302	J-156	Forest	TRUE	1.00	1,833.92	1.28	1,834.19	20.00	38.72	20.00	20.01	J-2919	(N/A)	17.28	J-1198
904	J-506	Forest	TRUE	1.00	1,834.19	1.28	1,834.47	20.00	46.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
666	J-384	Forest	TRUE	1.00	1,834.49	1.28	1,834.77	20.00	31.89	20.00	20.00	J-3855	(N/A)	17.28	J-1198
534	J-303	Forest	TRUE	1.00	1,836.87	1.28	1,837.15	20.00	57.56	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4816	J-2535	Forest	TRUE	1.00	1,837.56	1.68	1,838.23	20.00	21.00	20.00	20.00	J-917	(N/A)	17.28	J-1198
3240	J-1759	Forest	TRUE	1.00	1,837.56	1.48	1,838.03	20.00	21.51	20.00	20.00	J-917	(N/A)	17.28	J-1198
6467	J-3490	Forest	TRUE	1.00	1,839.39	1.08	1,839.47	20.00	45.91	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6466	J-3489	Forest	TRUE	1.00	1,839.39	1.48	1,839.87	20.00	46.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2677	J-1442	Forest	TRUE	1.00	1,839.46	1.88	1,840.34	20.00	45.94	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2593	J-1393	Forest	TRUE	1.00	1,840.16	1.48	1,840.64	20.00	22.11	20.00	20.00	J-1394	(N/A)	17.28	J-1198
1593	J-792	Forest	TRUE	1.00	1,840.41	1.08	1,840.49	20.00	25.67	20.00	20.00	J-1115	(N/A)	17.28	J-1198
4892	J-2580	Forest	TRUE	1.00	1,840.52	1.48	1,841.00	20.00	25.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4891	J-2579	Forest	TRUE	1.00	1,840.52	1.08	1,840.60	20.00	26.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4010	J-2168	Forest	TRUE	1.00	1,840.96	2.68	1,842.65	20.00	27.34	20.00	20.00	J-2919	(N/A)	17.28	J-1198
238	J-115	Forest	TRUE	1.00	1,845.73	1.08	1,845.81	20.00	50.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
237	J-114	Forest	TRUE	1.00	1,845.83	1.08	1,845.90	20.00	50.74	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7658	J-4080	Forest	TRUE	1.00	1,846.14	1.08	1,846.21	20.00	21.01	20.00	20.02	J-3804	(N/A)	16.95	J-1198
7690	J-4088	Forest	TRUE	1.00	1,846.21	2.88	1,848.10	20.00	20.03	20.00	22.73	J-2919	(N/A)	17.28	J-1198
5757	J-3077	Forest	TRUE	1.00	1,846.22	1.48	1,846.70	20.00	21.67	20.00	20.00	J-1394	(N/A)	17.28	J-1198
5758	J-3078	Forest	TRUE	1.00	1,846.22	1.68	1,846.90	20.00	22.16	20.00	20.00	J-1394	(N/A)	17.28	J-1198
7000	J-3804	Forest	TRUE	1.00	1,846.41	1.08	1,846.48	20.00	20.00	20.00	20.42	J-3803	(N/A)	16.95	J-1198
2536	J-1361	Forest	TRUE	1.00	1,846.69	1.08	1,846.77	20.00	26.08	20.00	20.00	J-1115	(N/A)	17.28	J-1198
89	J-40	Forest	TRUE	1.00	1,847.51	1.08	1,847.59	20.00	66.87	20.00	20.00	J-941	(N/A)	17.28	J-1198
3186	J-1726	Forest	TRUE	1.00	1,847.52	1.48	1,848.00	20.00	65.44	20.00	20.00	J-941	(N/A)	17.28	J-1198
7049	J-3831	Forest	TRUE	1.00	1,847.66	2.08	1,848.75	20.00	46.14	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7048	J-3830	Forest	TRUE	1.00	1,847.87	1.88	1,848.75	20.00	43.12	20.00	20.01	J-2919	(N/A)	17.28	J-1198
726	J-418	Forest	TRUE	1.00	1,848.44	1.08	1,848.52	20.00	51.08	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7052	J-3833	Forest	TRUE	1.00	1,848.44	1.68	1,849.12	20.00	33.41	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7051	J-3832	Forest	TRUE	1.00	1,848.44	3.29	1,850.73	20.00	35.63	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4138	J-2224	Forest	TRUE	1.00	1,849.28	1.08	1,849.35	20.00	20.01	20.00	20.86	J-2239	(N/A)	16.95	J-1198
7732	J-4102	Forest	TRUE	1.00	1,851.89	1.28	1,852.17	20.00	20.24	20.00	20.01	J-3066	(N/A)	17.28	J-1198
7733	J-4103	Forest	TRUE	1.00	1,852.03	1.08	1,852.11	20.00	32.12	20.00	20.00	J-3066	(N/A)	17.28	J-1198
4839	J-2549	Forest	TRUE	1.00	1,852.35	1.28	1,852.63	20.00	49.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4838	J-2548	Forest	TRUE	1.00	1,852.36	1.08	1,852.43	20.00	49.80	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7786	J-4117	Forest	TRUE	1.00	1,853.65	2.48	1,855.13	20.00	45.45	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7450	J-4009	Forest	TRUE	1.00	1,853.93	3.09	1,856.02	20.00	50.08	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3504	J-1910	Forest	TRUE	1.00	1,854.52	1.08	1,854.59	20.00	41.85	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1148	J-607	Lakes	TRUE	1.00	1,854.76	1.20	1,854.96	20.00	86.15	20.00	20.05	J-2323	(N/A)	17.28	J-1198
6988	J-3796	Forest	TRUE	1.00	1,854.96	3.09	1,857.04	20.00	25.04	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3505	J-1911	Forest	TRUE	1.00	1,855.02	1.68	1,855.70	20.00	32.33	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6989	J-3797	Forest	TRUE	1.00	1,855.25	1.68	1,855.93	20.00	22.47	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6656	J-3602	Lakes	TRUE	1.00	1,855.40	1.20	1,855.60	20.00	85.35	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6785	J-3678	Forest	TRUE	1.00	1,856.18	1.28	1,856.46	20.00	45.54	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6784	J-3677	Forest	TRUE	1.00	1,856.19	1.68	1,856.87	20.00	47.44	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4174	J-2239	Forest	TRUE	1.00	1,856.59	1.08	1,856.66	20.00	20.04	20.00	20.00	J-2224	(N/A)	16.95	J-1198
90	J-41	Forest	TRUE	1.00	1,856.91	1.28	1,857.19	20.00	69.81	20.00	20.00	J-941	(N/A)	17.28	J-1198
3122	J-1688	Forest	TRUE	1.00	1,856.91	1.28	1,857.19	20.00	68.72	20.00	20.00	J-941	(N/A)	17.28	J-1198
7234	J-3927	Forest	TRUE	1.00	1,858.38	1.28	1,858.66	20.00	22.96	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7235	J-3928	Forest	TRUE	1.00	1,858.42	1.08	1,858.50	20.00	22.36	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7671	J-4084	Forest	TRUE	1.00	1,859.24	3.49	1,861.73	20.00	25.66	20.00	20.00	J-1167	(N/A)	17.28	J-1198
6530	J-3526	Forest	TRUE	1.00	1,859.26	1.48	1,859.73	20.00	24.73	20.00	20.00	J-1167	(N/A)	17.28	J-1198
2163	J-1149	Forest	TRUE	1.00	1,859.27	1.88	1,860.15	20.00	23.94	20.00	20.00	J-1167	(N/A)	17.28	J-1198
6531	J-3527	Forest	TRUE	1.00	1,859.27	1.48	1,859.75	20.00	23.11	20.00	20.00	J-1167	(N/A)	17.28	J-1198
5419	J-2883	Forest	TRUE	1.00	1,860.30	1.48	1,860.78	20.00	20.00	20.00	20.26	J-2919	(N/A)	17.28	J-1198
5406	J-2876	Lakes	TRUE	1.00	1,861.41	1.20	1,861.61	20.00	20.00	20.00	20.34	J-1896	(N/A)	17.28	J-1198
7600	J-4061	Forest	TRUE	1.00	1,863.65	1.08	1,863.73	20.00	20.03	20.00	21.55	J-3946	(N/A)	17.28	J-1198
3050	J-1642	Lakes	TRUE	1.00	1,864.74	1.20	1,864.94	20.00	20.34	20.00	20.04	J-1896	(N/A)	17.28	J-1198
5315	J-2822	Forest	TRUE	1.00	1,867.19	1.88	1,868.07	20.00	20.00	20.00	20.84	J-2821	(N/A)	17.28	J-1198
3051	J-1643	Lakes	TRUE	1.00	1,869.19	1.89	1,870.08	20.00	20.29	20.00	20.04	J-1896	(N/A)	17.28	J-1198
3998	J-2162	Forest	TRUE	1.00	1,869.28	1.48	1,869.75	20.00	21.87	20.00	20.00	J-2729	(N/A)	17.28	J-1198
5692	J-3039	Forest	TRUE	1.00	1,870.16	1.68	1,870.83	20.00	22.69	20.00	20.00	J-2939	(N/A)	17.28	J-1198
5693	J-3040	Forest	TRUE	1.00	1,870.16	1.28	1,870.43	20.00	22.20	20.00	20.00	J-2939	(N/A)	17.28	J-1198
3372	J-1835	Forest	TRUE	1.00	1,870.83	2.08	1,871.91	20.00	33.47	20.00	20.00	J-1044	(N/A)	16.94	J-1198
5418	J-2882	Forest	TRUE	1.00	1,871.35	1.68	1,872.03	20.00	20.00	20.00	20.11	J-2919	(N/A)	17.28	J-1198
956	J-527	Forest	TRUE	1.00	1,871.76	1.08	1,871.84	20.00	40.27	20.00	20.01	J-3855	(N/A)	17.28	J-1198
5128	J-2715	Forest	TRUE	1.00	1,871.78	1.08	1,871.85	20.00	39.42	20.00	20.01	J-3855	(N/A)	17.28	J-1198
4588	J-2409	Forest	TRUE	1.00	1,872.18	1.48	1,872.66	20.00	37.77	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4589	J-2410	Forest	TRUE	1.00	1,872.23	1.08	1,872.30	20.00	37.34	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5589	J-2979	Forest	TRUE	1.00	1,874.85	1.48	1,875.33	20.00	68.64	20.00	20.00	J-3200	(N/A)	17.28	J-1198
5588	J-2978	Forest	TRUE	1.00	1,874.85	1.48	1,875.33	20.00	68.82	20.00	20.00	J-3200	(N/A)	17.28	J-1198
106	J-51	Forest	TRUE	1.00	1,875.30	1.08	1,875.38	20.00	76.18	20.00	20.00	J-941	(N/A)	17.28	J-1198
3345	J-1820	Forest	TRUE	1.00	1,875.31	1.28	1,875.59	20.00	72.98	20.00	20.00	J-941	(N/A)	17.28	J-1198
1190	J-623	Stewartsville	TRUE	1.00	1,876.44	1.11	1,876.55	20.00	61.97	20.00	20.00	J-676	(N/A)	17.28	J-1198
4894	J-2581	Stewartsville	TRUE	1.00	1,876.44	1.11	1,876.55	20.00	62.09	20.00	20.00	J-676	(N/A)	17.28	J-1198
5208	J-2759	Forest	TRUE	1.00	1,876.76	1.88	1,877.64	20.00	20.01	20.00	20.45	J-2116	(N/A)	16.94	J-1198
2529	J-1357	Forest	TRUE	1.00	1,876.77	1.08	1,876.85	20.00	38.15	20.00	20.00	J-2919	(N/A)		

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
3941	J-2137	Forest	TRUE	1.00	1,896.48	2.28	1,897.76	20.00	22.02	20.00	20.00	J-1163	(N/A)	17.28	J-1198
616	J-353	Forest	TRUE	1.00	1,898.90	1.88	1,899.78	20.00	44.90	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7419	J-4000	Forest	TRUE	1.00	1,899.00	1.08	1,899.08	20.00	43.74	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4524	J-2371	Forest	TRUE	1.00	1,899.09	2.28	1,900.37	20.00	45.44	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4525	J-2372	Forest	TRUE	1.00	1,899.10	1.08	1,899.18	20.00	45.05	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2123	J-1124	Forest	TRUE	1.00	1,899.14	1.88	1,900.02	20.00	44.85	20.00	20.00	J-2919	(N/A)	17.28	J-1198
117	J-56	Forest	TRUE	1.00	1,901.21	1.08	1,901.29	20.00	76.72	20.00	20.00	J-941	(N/A)	17.28	J-1198
6422	J-3464	Forest	TRUE	1.00	1,901.21	1.28	1,901.49	20.00	75.24	20.00	20.00	J-941	(N/A)	17.28	J-1198
2308	J-1237	Forest	TRUE	1.00	1,901.60	2.48	1,903.08	20.00	22.87	20.00	20.00	J-1238	(N/A)	17.28	J-1198
5883	J-3148	Forest	TRUE	1.00	1,901.60	1.48	1,902.07	20.00	21.80	20.00	20.00	J-1238	(N/A)	17.28	J-1198
6139	J-3296	Forest	TRUE	1.00	1,901.90	3.49	1,904.38	20.00	25.44	20.00	20.00	J-2219	(N/A)	17.28	J-1198
6140	J-3297	Forest	TRUE	1.00	1,901.90	1.08	1,901.98	20.00	24.17	20.00	20.00	J-2219	(N/A)	17.28	J-1198
8373	J-4174	Forest	TRUE	1.00	1,906.52	2.68	1,908.20	20.00	20.00	20.00	20.40	J-2919	(N/A)	17.28	J-1198
5455	J-2903	Forest	TRUE	1.00	1,907.41	1.28	1,907.69	20.00	20.00	20.00	20.70	J-3901	(N/A)	17.28	J-1198
3992	J-2159	Forest	TRUE	1.00	1,908.31	2.08	1,909.39	20.00	20.29	20.00	20.00	J-1224	(N/A)	17.28	J-1198
3932	J-2134	Forest	TRUE	1.00	1,908.39	1.68	1,909.07	20.00	25.93	20.00	20.03	J-1599	(N/A)	17.28	J-1198
7774	J-4113	Forest	TRUE	1.00	1,908.50	1.28	1,908.78	20.00	24.49	20.00	20.02	J-1599	(N/A)	17.28	J-1198
4877	J-2570	Forest	TRUE	1.00	1,910.62	1.08	1,910.70	20.00	33.36	20.00	20.00	J-3066	(N/A)	17.28	J-1198
4876	J-2569	Forest	TRUE	1.00	1,910.62	1.08	1,910.70	20.00	33.47	20.00	20.00	J-3066	(N/A)	17.28	J-1198
1266	J-657	Lakes	TRUE	1.00	1,911.21	1.20	1,911.41	20.00	96.29	20.00	20.03	J-2323	(N/A)	17.28	J-1198
5579	J-2973	Lakes	TRUE	1.00	1,911.22	1.20	1,911.42	20.00	95.89	20.00	20.03	J-2323	(N/A)	17.28	J-1198
7953	J-4151	Forest	TRUE	1.00	1,914.05	2.68	1,915.73	20.00	22.83	20.00	20.00	J-2822	(N/A)	17.28	J-1198
1010	J-552	Forest	TRUE	1.00	1,916.55	1.48	1,917.03	20.00	37.09	20.00	20.00	J-3855	(N/A)	17.28	J-1198
5118	J-2709	Forest	TRUE	1.00	1,916.56	1.08	1,916.64	20.00	36.16	20.00	20.00	J-3855	(N/A)	17.28	J-1198
7182	J-3901	Forest	TRUE	1.00	1,916.74	1.28	1,917.02	20.00	20.00	20.00	20.30	J-2903	(N/A)	17.28	J-1198
5454	J-2902	Forest	TRUE	1.00	1,920.51	1.28	1,920.78	20.00	20.13	20.00	20.01	J-3901	(N/A)	17.28	J-1198
5561	J-2963	Forest	TRUE	1.00	1,921.16	1.48	1,921.64	20.00	60.14	20.00	20.00	J-3904	(N/A)	16.93	J-1198
5560	J-2962	Forest	TRUE	1.00	1,921.16	1.08	1,921.23	20.00	59.89	20.00	20.00	J-3904	(N/A)	16.93	J-1198
6755	J-3660	Forest	TRUE	1.00	1,922.44	1.88	1,923.32	20.00	20.01	20.00	21.22	J-1715	(N/A)	17.28	J-1198
207	J-95	Forest	TRUE	1.00	1,924.05	1.08	1,924.13	20.00	59.20	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1831	J-944	Forest	TRUE	1.00	1,925.57	1.08	1,925.65	20.00	20.02	20.00	20.98	J-1715	(N/A)	17.28	J-1198
5046	J-2670	Forest	TRUE	1.00	1,929.79	1.28	1,930.07	20.00	20.00	20.00	20.40	J-1163	(N/A)	17.28	J-1198
1981	J-1042	Forest	TRUE	1.00	1,932.88	1.08	1,932.96	20.00	23.43	20.00	20.02	J-3	(N/A)	16.92	J-1198
6285	J-3383	Forest	TRUE	1.00	1,933.97	1.08	1,934.05	20.00	20.00	20.00	21.03	J-2817	(N/A)	17.28	J-1198
7986	J-4156	Forest	TRUE	1.00	1,934.19	3.09	1,936.28	20.00	20.00	20.00	21.35	J-2919	(N/A)	17.28	J-1198
5045	J-2669	Forest	TRUE	1.00	1,936.90	2.08	1,937.98	20.00	20.49	20.00	20.00	J-1163	(N/A)	17.28	J-1198
3168	J-1715	Forest	TRUE	1.00	1,938.04	1.48	1,938.51	20.00	20.01	20.00	20.19	J-3660	(N/A)	17.28	J-1198
768	J-438	Forest	TRUE	1.00	1,938.89	1.08	1,938.97	20.00	41.48	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3371	J-1834	Forest	TRUE	1.00	1,939.48	1.08	1,939.56	20.00	32.72	20.00	20.00	J-1044	(N/A)	16.92	J-1198
6793	J-3683	Forest	TRUE	1.00	1,939.48	1.08	1,939.56	20.00	32.24	20.00	20.00	J-1044	(N/A)	16.92	J-1198
6889	J-3739	Forest	TRUE	1.00	1,939.71	3.09	1,941.80	20.00	29.58	20.00	20.00	J-4116	(N/A)	17.28	J-1198
6890	J-3740	Forest	TRUE	1.00	1,939.73	1.48	1,940.21	20.00	27.89	20.00	20.00	J-4116	(N/A)	17.28	J-1198
5869	J-3140	Forest	TRUE	1.00	1,939.80	2.08	1,940.88	20.00	21.20	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5870	J-3141	Forest	TRUE	1.00	1,939.84	1.48	1,940.32	20.00	20.10	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7465	J-4016	Forest	TRUE	1.00	1,939.84	1.08	1,939.92	20.00	30.85	20.00	20.00	J-1115	(N/A)	17.28	J-1198
432	J-240	Forest	TRUE	1.00	1,939.85	1.48	1,940.32	20.00	48.34	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7701	J-4092	Forest	TRUE	1.00	1,939.85	1.88	1,940.73	20.00	26.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
866	J-487	Forest	TRUE	1.00	1,940.14	1.28	1,940.42	20.00	43.50	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6735	J-3648	Forest	TRUE	1.00	1,940.14	1.28	1,940.42	20.00	42.29	20.00	20.00	J-2919	(N/A)	17.28	J-1198
392	J-214	Forest	TRUE	1.00	1,940.49	1.08	1,940.56	20.00	47.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5354	J-2845	Forest	TRUE	1.00	1,940.49	1.28	1,940.76	20.00	46.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6898	J-3745	Forest	TRUE	1.00	1,940.67	1.28	1,940.95	20.00	32.18	20.00	20.03	J-2729	(N/A)	17.28	J-1198
6897	J-3744	Forest	TRUE	1.00	1,940.68	1.08	1,940.76	20.00	31.40	20.00	20.03	J-2729	(N/A)	17.28	J-1198
393	J-215	Forest	TRUE	1.00	1,940.83	1.48	1,941.31	20.00	47.48	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7389	J-3989	Forest	TRUE	1.00	1,941.14	1.28	1,941.41	20.00	44.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
781	J-445	Forest	TRUE	1.00	1,941.14	1.28	1,941.42	20.00	45.46	20.00	20.00	J-2919	(N/A)	17.28	J-1198
492	J-276	Forest	TRUE	1.00	1,941.45	1.28	1,941.72	20.00	41.58	20.00	20.00	J-2919	(N/A)	17.28	J-1198
780	J-444	Forest	TRUE	1.00	1,941.83	1.08	1,941.91	20.00	48.40	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6954	J-3777	Forest	TRUE	1.00	1,941.84	1.08	1,941.91	20.00	48.73	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4554	J-2389	Forest	TRUE	1.00	1,941.85	1.08	1,941.93	20.00	23.63	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3461	J-1885	Forest	TRUE	1.00	1,941.86	1.48	1,942.33	20.00	23.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8215	J-4171	Forest	TRUE	1.00	1,941.92	2.08	1,943.00	20.00	21.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
950	J-524	Forest	TRUE	1.00	1,941.96	1.28	1,942.24	20.00	32.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1093	J-586	Forest	TRUE	1.00	1,941.96	8.00	1,948.96	20.00	36.42	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3460	J-1884	Forest	TRUE	1.00	1,941.97	1.68	1,942.65	20.00	31.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
493	J-277	Forest	TRUE	1.00	1,941.97	1.08	1,942.05	20.00	41.09	20.00	20.00	J-2919	(N/A)	17.28	J-1198
304	J-157	Forest	TRUE	1.00	1,941.98	1.28	1,942.25	20.00	32.38	20.00	20.00	J-2919	(N/A)	17.28	J-1198
305	J-158	Forest	TRUE	1.00	1,941.98	1.88	1,942.86	20.00	32.23	20.00	20.00	J-2919	(N/A)	17.28	J-1198
722	J-416	Forest	TRUE	1.00	1,942.13	1.08	1,942.21	20.00	47.49	20.00	20.00	J-2919	(N/A)	17.28	J-1198
721	J-415	Forest	TRUE	1.00	1,942.63	1.08	1,942.71	20.00	41.93	20.00	20.00	J-2919	(N/A)	17.28	J-1198
567	J-324	Forest	TRUE	1.00	1,942.70	1.08	1,942.78	20.00	43.48	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6570	J-3551	Forest	TRUE	1.00	1,942.70	1.08	1,942.78	20.00	42.07	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8493	J-4199	Forest	TRUE	1.00	1,942.91	1.68	1,943.59	20.00	44.50	20.00	20.00	J-2919	(N/A)	17.28	J-1198
566	J-323	Forest	TRUE	1.00	1,942.92	1.08	1,942.99	20.00	44.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
785	J-447	Forest	TRUE	1.00	1,943.58	1.08	1,943.66	20.00	54.07	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8506	J-4206	Forest	TRUE	1.00	1,943.58	1.48	1,944.06	20.00	52.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6831	J-3705	Forest	TRUE	1.00	1,944.11	1.08	1,944.19	20.00	60.91	20.00	20.00	J-2919	(N/A)	17.28	J-1198
792	J-451	Forest	TRUE	1.00	1,944.11	1.28	1,944.39	20.00	63.36	20.00	20.00	J-2919	(N/A)	17.28	J-11

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
420	J-232	Forest	TRUE	1.00	1,954.16	1.08	1,954.24	20.00	46.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6852	J-3717	Forest	TRUE	1.00	1,954.16	1.28	1,954.44	20.00	44.80	20.00	20.00	J-2919	(N/A)	17.28	J-1198
783	J-446	Forest	TRUE	1.00	1,955.07	1.08	1,955.15	20.00	62.11	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7075	J-3846	Forest	TRUE	1.00	1,955.27	1.08	1,955.34	20.00	27.61	20.00	20.00	J-2919	(N/A)	17.28	J-1198
806	J-457	Forest	TRUE	1.00	1,955.61	1.48	1,956.09	20.00	47.44	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7074	J-3845	Forest	TRUE	1.00	1,955.69	1.08	1,955.77	20.00	33.16	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7641	J-4076	Forest	TRUE	1.00	1,955.70	1.08	1,955.78	20.00	37.36	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8481	J-4192	Forest	TRUE	1.00	1,955.70	1.68	1,956.38	20.00	36.61	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7802	J-4121	Forest	TRUE	1.00	1,955.70	1.28	1,955.98	20.00	45.58	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1196	J-626	Stewartsville	TRUE	1.00	1,955.80	1.11	1,955.91	20.00	58.62	20.00	20.00	J-676	(N/A)	17.28	J-1198
5263	J-2792	Stewartsville	TRUE	1.00	1,955.80	1.11	1,955.91	20.00	57.79	20.00	20.00	J-676	(N/A)	17.28	J-1198
6650	J-3599	Forest	TRUE	1.00	1,955.96	2.68	1,957.64	20.00	20.92	20.00	20.04	J-3571	(N/A)	16.92	J-1198
626	J-359	Forest	TRUE	1.00	1,956.04	1.48	1,956.52	20.00	52.48	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3385	J-1841	Forest	TRUE	1.00	1,956.04	1.48	1,956.52	20.00	46.26	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4786	J-2519	Forest	TRUE	1.00	1,956.43	1.08	1,956.51	20.00	48.31	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4787	J-2520	Forest	TRUE	1.00	1,956.43	1.28	1,956.71	20.00	47.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1691	J-854	Forest	TRUE	1.00	1,956.45	1.08	1,956.52	20.00	30.39	20.00	20.00	J-1115	(N/A)	17.28	J-1198
627	J-360	Forest	TRUE	1.00	1,956.57	1.08	1,956.64	20.00	48.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5660	J-3021	Forest	TRUE	1.00	1,957.06	1.68	1,957.74	20.00	26.63	20.00	20.00	J-1163	(N/A)	17.28	J-1198
5661	J-3022	Forest	TRUE	1.00	1,957.06	2.48	1,958.55	20.00	25.93	20.00	20.00	J-1163	(N/A)	17.28	J-1198
7948	J-4149	Forest	TRUE	1.00	1,957.28	1.28	1,957.56	20.00	54.09	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8479	J-4191	Forest	TRUE	1.00	1,957.29	1.28	1,957.57	20.00	54.15	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6429	J-3468	Forest	TRUE	1.00	1,957.48	1.28	1,957.75	20.00	46.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
838	J-473	Forest	TRUE	1.00	1,957.48	1.08	1,957.56	20.00	47.44	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6873	J-3730	Forest	TRUE	1.00	1,957.50	1.08	1,957.58	20.00	46.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6872	J-3729	Forest	TRUE	1.00	1,957.50	1.28	1,957.78	20.00	48.50	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5942	J-3181	Forest	TRUE	1.00	1,957.64	1.48	1,958.11	20.00	43.71	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5941	J-3180	Forest	TRUE	1.00	1,957.64	1.48	1,958.12	20.00	44.74	20.00	20.00	J-2919	(N/A)	17.28	J-1198
505	J-284	Forest	TRUE	1.00	1,957.72	1.08	1,957.79	20.00	44.35	20.00	20.00	J-2919	(N/A)	17.28	J-1198
8473	J-4188	Forest	TRUE	1.00	1,957.72	1.68	1,958.40	20.00	44.35	20.00	20.00	J-2919	(N/A)	17.28	J-1198
506	J-285	Forest	TRUE	1.00	1,958.01	1.08	1,958.09	20.00	43.41	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6522	J-3522	Forest	TRUE	1.00	1,958.01	1.28	1,958.29	20.00	42.04	20.00	20.00	J-2919	(N/A)	17.28	J-1198
825	J-467	Forest	TRUE	1.00	1,958.13	1.88	1,959.01	20.00	43.11	20.00	20.00	J-2919	(N/A)	17.28	J-1198
486	J-272	Forest	TRUE	1.00	1,958.13	2.08	1,959.21	20.00	43.53	20.00	20.00	J-2919	(N/A)	17.28	J-1198
500	J-281	Forest	TRUE	1.00	1,958.13	1.28	1,958.41	20.00	43.85	20.00	20.00	J-2919	(N/A)	17.28	J-1198
487	J-273	Forest	TRUE	1.00	1,958.14	1.28	1,958.41	20.00	43.36	20.00	20.00	J-2919	(N/A)	17.28	J-1198
315	J-164	Forest	TRUE	1.00	1,958.44	1.88	1,959.32	20.00	43.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3382	J-1840	Forest	TRUE	1.00	1,958.45	1.68	1,959.13	20.00	39.70	20.00	20.00	J-2919	(N/A)	17.28	J-1198
316	J-165	Forest	TRUE	1.00	1,958.45	1.28	1,958.73	20.00	43.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6970	J-3786	Forest	TRUE	1.00	1,958.45	1.08	1,958.53	20.00	41.54	20.00	20.00	J-2919	(N/A)	17.28	J-1198
618	J-354	Forest	TRUE	1.00	1,959.15	1.48	1,959.62	20.00	45.90	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4792	J-2523	Forest	TRUE	1.00	1,960.36	1.28	1,960.64	20.00	43.96	20.00	20.00	J-2919	(N/A)	17.28	J-1198
434	J-241	Forest	TRUE	1.00	1,960.36	1.48	1,960.84	20.00	44.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4599	J-2416	Forest	TRUE	1.00	1,960.48	2.28	1,961.76	20.00	26.86	20.00	20.00	J-2822	(N/A)	17.28	J-1198
4598	J-2415	Forest	TRUE	1.00	1,960.48	2.08	1,961.56	20.00	26.32	20.00	20.00	J-2822	(N/A)	17.28	J-1198
435	J-242	Forest	TRUE	1.00	1,960.53	1.08	1,960.61	20.00	44.86	20.00	20.00	J-2919	(N/A)	17.28	J-1198
370	J-200	Forest	TRUE	1.00	1,960.62	1.08	1,960.70	20.00	70.96	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5683	J-3034	Forest	TRUE	1.00	1,960.63	1.28	1,960.90	20.00	70.23	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1680	J-847	Forest	TRUE	1.00	1,960.70	2.48	1,962.18	20.00	20.98	20.00	20.00	J-2822	(N/A)	17.28	J-1198
369	J-199	Forest	TRUE	1.00	1,960.72	1.68	1,961.40	20.00	70.94	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5595	J-2982	Forest	TRUE	1.00	1,960.72	1.48	1,961.20	20.00	71.86	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4043	J-2182	Forest	TRUE	1.00	1,960.72	2.68	1,962.40	20.00	48.37	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5596	J-2983	Forest	TRUE	1.00	1,960.72	1.08	1,960.80	20.00	72.25	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4749	J-2499	Forest	TRUE	1.00	1,962.46	1.08	1,962.54	20.00	23.22	20.00	20.03	J-3	(N/A)	16.91	J-1198
3327	J-1810	Forest	TRUE	1.00	1,962.50	1.08	1,962.58	20.00	23.97	20.00	20.02	J-3	(N/A)	16.91	J-1198
6228	J-3349	Forest	TRUE	1.00	1,963.06	2.48	1,964.54	20.00	20.02	20.00	20.84	J-3350	(N/A)	17.28	J-1198
6290	J-3386	Forest	TRUE	1.00	1,964.48	1.48	1,964.96	20.00	84.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
738	J-423	Forest	TRUE	1.00	1,964.48	1.28	1,964.76	20.00	83.50	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7872	J-4135	Forest	TRUE	1.00	1,964.84	1.68	1,965.52	20.00	20.00	20.00	20.44	J-2919	(N/A)	17.28	J-1198
4601	J-2417	Lakes	TRUE	1.00	1,965.62	1.37	1,965.99	20.00	21.81	20.00	20.01	J-2188	(N/A)	17.28	J-1198
737	J-422	Forest	TRUE	1.00	1,965.66	2.28	1,966.94	20.00	79.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4056	J-2187	Lakes	TRUE	1.00	1,965.72	2.41	1,967.13	20.00	22.27	20.00	20.00	J-2188	(N/A)	17.28	J-1198
7340	J-3970	Forest	TRUE	1.00	1,965.74	1.08	1,965.81	20.00	21.20	20.00	20.04	J-3571	(N/A)	16.91	J-1198
7339	J-3969	Forest	TRUE	1.00	1,965.80	1.48	1,966.28	20.00	21.66	20.00	20.03	J-3571	(N/A)	16.91	J-1198
6512	J-3516	Forest	TRUE	1.00	1,967.35	1.88	1,968.23	20.00	24.80	20.00	20.00	J-3425	(N/A)	17.28	J-1198
6511	J-3515	Forest	TRUE	1.00	1,967.35	1.08	1,967.43	20.00	23.00	20.00	20.00	J-3425	(N/A)	17.28	J-1198
8022	J-4159	Forest	TRUE	1.00	1,967.38	2.08	1,968.46	20.00	20.00	20.00	21.81	J-2919	(N/A)	17.28	J-1198
4796	J-2525	Forest	TRUE	1.00	1,967.48	1.48	1,967.96	20.00	72.67	20.00	20.00	J-2919	(N/A)	17.28	J-1198
889	J-499	Forest	TRUE	1.00	1,967.48	1.88	1,968.36	20.00	73.29	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6286	J-3384	Forest	TRUE	1.00	1,968.77	1.88	1,969.65	20.00	20.34	20.00	20.00	J-3383	(N/A)	17.28	J-1198
631	J-362	Forest	TRUE	1.00	1,969.83	1.68	1,970.51	20.00	43.66	20.00	20.00	J-2919	(N/A)	17.28	J-1198
632	J-363	Forest	TRUE	1.00	1,969.83	2.08	1,970.91	20.00	43.30	20.00	20.00	J-2919	(N/A)	17.28	J-1198
790	J-450	Forest	TRUE	1.00	1,971.12	1.08	1,971.19	20.00	77.79	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4725	J-2485	Forest	TRUE	1.00	1,971.17	1.08	1,971.25	20.00	77.17	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4726	J-2486	Forest	TRUE	1.00	1,971.17	1.28	1,971.45	20.00	76.84	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5739	J-3067	Forest	TRUE	1.00	1,971.35	1.48	1,971.83	20.00	27.54	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4485	J-2349	Forest	TRUE	1.00	1,971.40	1.48	1,971.88	20.00	26.39	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5457	J-2904	Forest	TRUE	1.00	1,971.52	1.08	1,971.60	20.00	45.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
4486	J-2350	Forest	TRUE	1.00	1,971.83	1.28	1,972.11	20.00	26.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7206	J-3913	Forest	TRUE	1.00	1,971.84	2.28	1,973.12	20.00	26.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4595	J-2413	Forest	TRUE	1.00	1,971.95	1.48	1,972.43	20.00	32.39	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4596	J-2414	Forest	TRUE	1.00	1,971.95	1.48	1,972.43	20.00	31.87	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2727	J-1472	Forest	TRUE	1.00	1,971.95	1.48	1,972.43	20.00	32.41	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4700	J-2471	Forest	TRUE	1.00	1,972.02	1.68	1,972.70	20.00	71.27	20.00	20.01	J-2919	(N/A)	17.28	J-1198
256	J-127	Forest	TRUE	1.00	1,972.02	1.68	1,972.70	20.00	71.94	20.00	20.01	J-2919	(N/A)	17.28	J-1198
255	J-126	Forest	TRUE	1.00	1,972.04	1.48	1,972.52	20.00	71.81	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4033	J-2177	Forest	TRUE	1.00	1,972.05	1.88	1,972.93	20.00	25.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4736	J-2492	Forest	TRUE	1.00	1,972.08	1.88	1,972.96	20.00	34.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7493	J-4026	Forest	TRUE	1.00	1,972.08	1.48	1,972.56	20.00	35.28	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4735	J-2491	Forest	TRUE	1.00	1,972.08	1.08	1,972.16	20.00	33.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4614	J-2424	Forest	TRUE	1.00	1,972.08	1.28	1,972.36	20.00	42.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4615	J-2425	Forest	TRUE	1.00	1,972.08	1.88	1,972.96	20.00	42.15	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7359	J-3978	Forest	TRUE	1.00	1,972.10	1.48	1,972.57	20.00	43.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4163	J-2235	Forest	TRUE	1.00	1,972.21	1.48	1,972.69	20.00	52.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5475	J-2915	Forest	TRUE	1.00	1,972.50	1.68	1,973.17	20.00	20.00	20.00	20.26	J-2919	(N/A)	17.28	J-1198
5090	J-2694	Forest	TRUE	1.00	1,973.02	1.48	1,973.50	20.00	20.03	20.00	20.88	J-1827	(N/A)	17.28	J-1198
934	J-516	Forest	TRUE	1.00	1,973.22	2.28	1,974.51	20.00	44.87	20.00	20.01	J-3855	(N/A)	17.28	J-1198
6479	J-3497	Forest	TRUE	1.00	1,973.25	1.08	1,973.33	20.00	43.23	20.00	20.01	J-3855	(N/A)	17.28	J-1198
2785	J-1507	Forest	TRUE	1.00	1,975.08	1.48	1,975.55	20.00	20.03	20.00	23.51	J-1508	(N/A)	17.28	J-1198
6229	J-3350	Forest	TRUE	1.00	1,975.09	1.08	1,975.17	20.00	20.00	20.00	20.31	J-3349	(N/A)	17.28	J-1198
1607	J-801	Forest	TRUE	1.00	1,975.88	1.08	1,975.96	20.00	28.15	20.00	20.00	J-1115	(N/A)	17.28	J-1198
7124	J-3873	Forest	TRUE	1.00	1,976.39	1.08	1,976.47	20.00	28.13	20.00	20.00	J-1115	(N/A)	17.28	J-1198
4833	J-2545	Forest	TRUE	1.00	1,976.43	1.08	1,976.50	20.00	23.70	20.00	20.00	J-1115	(N/A)	17.28	J-1198
4834	J-2546	Forest	TRUE	1.00	1,976.43	1.08	1,976.51	20.00	23.15	20.00	20.00	J-1115	(N/A)	17.28	J-1198
2514	J-1348	Forest	TRUE	1.00	1,976.43	1.08	1,976.51	20.00	22.82	20.00	20.00	J-1115	(N/A)	17.28	J-1198
861	J-485	Forest	TRUE	1.00	1,979.16	1.88	1,980.04	20.00	36.69	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5486	J-2921	Forest	TRUE	1.00	1,979.22	1.68	1,979.90	20.00	35.95	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1599	J-796	Forest	TRUE	1.00	1,981.28	1.08	1,981.35	20.00	27.88	20.00	20.00	J-1115	(N/A)	17.28	J-1198
5442	J-2896	Forest	TRUE	1.00	1,982.43	2.28	1,983.71	20.00	20.01	20.00	20.89	J-2256	(N/A)	17.28	J-1198
6725	J-3642	Forest	TRUE	1.00	1,982.94	1.88	1,983.82	20.00	81.08	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6726	J-3643	Forest	TRUE	1.00	1,982.95	1.68	1,983.62	20.00	81.86	20.00	20.01	J-2919	(N/A)	17.28	J-1198
860	J-484	Forest	TRUE	1.00	1,983.19	1.88	1,984.07	20.00	34.60	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6059	J-3248	Forest	TRUE	1.00	1,983.64	1.08	1,983.72	20.00	30.14	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7251	J-3936	Forest	TRUE	1.00	1,983.65	1.08	1,983.72	20.00	29.84	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6058	J-3247	Forest	TRUE	1.00	1,983.65	1.08	1,983.72	20.00	30.02	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3357	J-1827	Forest	TRUE	1.00	1,983.65	2.68	1,985.33	20.00	20.15	20.00	20.03	J-2694	(N/A)	17.28	J-1198
5474	J-2914	Forest	TRUE	1.00	1,985.95	1.68	1,986.63	20.00	20.00	20.00	20.10	J-2919	(N/A)	17.28	J-1198
5593	J-2981	Forest	TRUE	1.00	1,987.24	1.48	1,987.72	20.00	33.21	20.00	20.00	J-2919	(N/A)	17.28	J-1198
864	J-486	Forest	TRUE	1.00	1,987.24	1.48	1,987.72	20.00	34.06	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1683	J-849	Forest	TRUE	1.00	1,990.06	1.08	1,990.14	20.00	28.50	20.00	20.00	J-1115	(N/A)	17.28	J-1198
8477	J-4190	Forest	TRUE	1.00	1,990.87	1.68	1,991.55	20.00	32.33	20.00	20.00	J-2919	(N/A)	17.28	J-1198
708	J-407	Forest	TRUE	1.00	1,990.88	1.08	1,990.96	20.00	33.75	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3336	J-1815	Forest	TRUE	1.00	1,991.36	1.48	1,991.83	20.00	20.03	20.00	20.06	J-958	(N/A)	17.28	J-1198
640	J-368	Forest	TRUE	1.00	1,991.82	1.08	1,991.90	20.00	34.79	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3071	J-1656	Forest	TRUE	1.00	1,991.83	1.08	1,991.91	20.00	25.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4501	J-2358	Forest	TRUE	1.00	1,991.91	2.28	1,993.19	20.00	52.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4500	J-2357	Forest	TRUE	1.00	1,991.91	1.48	1,992.39	20.00	52.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3070	J-1655	Forest	TRUE	1.00	1,991.92	8.88	1,999.80	20.00	25.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4814	J-2534	Forest	TRUE	1.00	1,991.92	1.08	1,992.00	20.00	24.95	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7157	J-3891	Forest	TRUE	1.00	1,991.95	1.28	1,992.23	20.00	52.42	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7158	J-3892	Forest	TRUE	1.00	1,991.95	1.48	1,992.43	20.00	52.28	20.00	20.00	J-2919	(N/A)	17.28	J-1198
639	J-367	Forest	TRUE	1.00	1,992.70	1.08	1,992.78	20.00	34.91	20.00	20.00	J-2919	(N/A)	17.28	J-1198
9469	J-4186	Forest	TRUE	1.00	1,992.71	1.48	1,993.19	20.00	34.85	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2532	J-1359	Lakes	TRUE	1.00	1,992.79	1.20	1,992.99	20.00	20.02	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2780	J-1504	Forest	TRUE	1.00	1,993.65	1.68	1,994.33	20.00	43.49	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6866	J-3725	Forest	TRUE	1.00	1,993.83	1.48	1,994.31	20.00	43.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6867	J-3726	Forest	TRUE	1.00	1,993.84	1.48	1,994.31	20.00	42.00	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7559	J-4050	Forest	TRUE	1.00	1,994.03	1.88	1,994.91	20.00	42.60	20.00	20.00	J-2919	(N/A)	17.28	J-1198
225	J-106	Forest	TRUE	1.00	1,994.55	1.28	1,994.83	20.00	36.05	20.00	20.01	J-2919	(N/A)	17.28	J-1198
226	J-107	Forest	TRUE	1.00	1,994.57	1.28	1,994.84	20.00	35.81	20.00	20.01	J-2919	(N/A)	17.28	J-1198
654	J-377	Forest	TRUE	1.00	1,994.59	1.48	1,995.07	20.00	35.89	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4686	J-2464	Forest	TRUE	1.00	1,994.62	1.28	1,994.90	20.00	34.98	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1410	J-703	Forest	TRUE	1.00	1,995.05	1.08	1,995.12	20.00	33.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1008	J-551	Forest	TRUE	1.00	1,995.05	1.88	1,995.93	20.00	27.95	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7639	J-4075	Forest	TRUE	1.00	1,995.05	1.08	1,995.13	20.00	32.08	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1007	J-550	Forest	TRUE	1.00	1,995.05	1.48	1,995.53	20.00	33.23	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3996	J-2161	Forest	TRUE	1.00	1,995.05	3.09	1,997.14	20.00	33.51	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6458	J-3485	Forest	TRUE	1.00	1,995.05	1.08	1,995.13	20.00	28.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2975	J-1604	Forest	TRUE	1.00	1,995.05	2.08	1,996.13	20.00	29.80	20.00	20.00	J-2919	(N/A)	17.28	J-1198
697	J-401	Forest	TRUE	1.00	1,995.06	2.08	1,996.14	20.00	30.14	20.00	20.00	J-2919	(N/A)	17.28	J-1198
698	J-402	Forest	TRUE	1.00	1,995.06	1.88	1,995.94	20.00	31.96	20.00	20.00	J-2919	(N/A)	17.28	J-1198
552	J-314	Forest	TRUE	1.00	1,995.06	1.88	1,995.94	20.00	40.70	20.00	20.00	J-2919	(N/A)	17.28	J-1198
653	J-376	Forest	TRUE	1.00	1,995.06	1.28	1,995.34	20.00	37.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3410	J-1855	Forest	TRUE	1.00	1,995.07	1.08	1,995.14	20.00	39.20	20.00	20.00	J-2919	(N/A)	17.28	J-1198
553	J-315	Forest	TRUE	1.00	1,995.07	2.88	1,996.95	20.00	39.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
980	J-537	Forest	TRUE	1.00	1,995.07	1.28	1,995.34	20.00	44.02	20.00	20.00	J-2919	(N/A)	17.	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2210	J-1178	Forest	TRUE	1.00	2,019.07	1.08	2,019.15	20.00	20.04	20.00	20.40	J-1507	(N/A)	17.28	J-1198
6837	J-3709	Forest	TRUE	1.00	2,019.86	2.28	2,021.14	20.00	20.00	20.00	20.00	J-3708	(N/A)	17.28	J-1198
6836	J-3708	Forest	TRUE	1.00	2,019.86	2.48	2,021.35	20.00	20.00	20.00	20.59	J-4088	(N/A)	17.28	J-1198
6041	J-3236	Forest	TRUE	1.00	2,023.72	1.48	2,024.20	20.00	20.00	20.00	20.25	J-3237	(N/A)	17.28	J-1198
6739	J-3650	Forest	TRUE	1.00	2,024.92	1.08	2,024.99	20.00	21.97	20.00	20.04	J-2224	(N/A)	16.90	J-1198
6740	J-3651	Forest	TRUE	1.00	2,024.98	1.88	2,025.86	20.00	23.50	20.00	20.03	J-2224	(N/A)	16.90	J-1198
6952	J-3776	Lakes	TRUE	1.00	2,025.95	1.29	2,026.24	20.00	20.00	20.00	22.32	J-1916	(N/A)	17.28	J-1198
2897	J-1570	Forest	TRUE	1.00	2,032.60	1.48	2,033.08	20.00	24.43	20.00	20.07	J-2729	(N/A)	17.28	J-1198
5523	J-2941	Forest	TRUE	1.00	2,034.76	2.48	2,036.24	20.00	24.90	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5524	J-2942	Forest	TRUE	1.00	2,034.76	1.48	2,035.24	20.00	23.92	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6994	J-3800	Forest	TRUE	1.00	2,038.83	1.08	2,038.91	20.00	35.33	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6993	J-3799	Forest	TRUE	1.00	2,038.84	3.09	2,040.92	20.00	37.87	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6412	J-3458	Forest	TRUE	1.00	2,039.06	1.48	2,039.54	20.00	20.01	20.00	20.99	J-3459	(N/A)	17.28	J-1198
4991	J-2637	Forest	TRUE	1.00	2,039.54	1.68	2,040.22	20.00	20.00	20.00	20.59	J-2636	(N/A)	16.89	J-1198
3514	J-1916	Lakes	TRUE	1.00	2,044.00	1.20	2,044.20	20.00	20.40	20.00	20.05	J-3776	(N/A)	17.28	J-1198
4990	J-2636	Forest	TRUE	1.00	2,045.12	1.08	2,045.20	20.00	20.00	20.00	20.07	J-2637	(N/A)	16.89	J-1198
4045	J-2183	Lakes	TRUE	1.00	2,047.45	1.20	2,047.65	20.00	23.12	20.00	20.00	J-1586	(N/A)	17.28	J-1198
6675	J-3613	Forest	TRUE	1.00	2,050.91	1.48	2,051.39	20.00	36.40	20.00	20.01	J-2919	(N/A)	17.28	J-1198
76	J-32	Forest	TRUE	1.00	2,051.31	1.08	2,051.38	20.00	37.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7215	J-3917	Lakes	TRUE	1.00	2,052.14	1.20	2,052.33	20.00	39.66	20.00	20.05	J-2323	(N/A)	17.28	J-1198
7216	J-3918	Lakes	TRUE	1.00	2,052.20	1.20	2,052.40	20.00	39.01	20.00	20.05	J-2323	(N/A)	17.28	J-1198
4677	J-2459	Lakes	TRUE	1.00	2,052.24	1.20	2,052.44	20.00	38.67	20.00	20.05	J-2323	(N/A)	17.28	J-1198
4676	J-2458	Lakes	TRUE	1.00	2,052.32	1.20	2,052.52	20.00	37.92	20.00	20.04	J-2323	(N/A)	17.28	J-1198
2590	J-1391	Forest	TRUE	1.00	2,052.54	1.48	2,053.02	20.00	20.01	20.00	20.17	J-3459	(N/A)	17.28	J-1198
7263	J-3941	Lakes	TRUE	1.00	2,052.94	1.20	2,053.14	20.00	31.37	20.00	20.00	J-2323	(N/A)	17.28	J-1198
211	J-97	Lakes	TRUE	1.00	2,052.94	1.20	2,053.14	20.00	66.18	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6076	J-3259	Lakes	TRUE	1.00	2,052.94	1.20	2,053.14	20.00	31.21	20.00	20.00	J-2323	(N/A)	17.28	J-1198
7262	J-3940	Lakes	TRUE	1.00	2,052.94	1.37	2,053.31	20.00	31.16	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6075	J-3258	Lakes	TRUE	1.00	2,052.94	1.20	2,053.14	20.00	30.42	20.00	20.00	J-2323	(N/A)	17.28	J-1198
210	J-96	Lakes	TRUE	1.00	2,053.01	1.20	2,053.21	20.00	66.20	20.00	20.00	J-2323	(N/A)	17.28	J-1198
5617	J-2995	Forest	TRUE	1.00	2,053.41	1.88	2,054.29	20.00	20.02	20.00	21.41	J-2246	(N/A)	17.28	J-1198
1108	J-593	Stewartsville	TRUE	1.00	2,054.09	1.11	2,054.20	20.00	71.91	20.00	20.00	J-676	(N/A)	17.28	J-1198
4898	J-2583	Stewartsville	TRUE	1.00	2,054.09	1.11	2,054.21	20.00	71.46	20.00	20.00	J-676	(N/A)	17.28	J-1198
6413	J-3459	Forest	TRUE	1.00	2,055.25	1.08	2,055.33	20.00	20.01	20.00	20.26	J-1391	(N/A)	17.28	J-1198
75	J-31	Forest	TRUE	1.00	2,056.01	1.28	2,056.29	20.00	37.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7900	J-4141	Forest	TRUE	1.00	2,056.13	1.88	2,057.01	20.00	21.33	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7632	J-4072	Forest	TRUE	1.00	2,056.16	1.48	2,056.64	20.00	31.63	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5360	J-2849	Forest	TRUE	1.00	2,056.17	1.08	2,056.25	20.00	33.80	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5359	J-2848	Forest	TRUE	1.00	2,056.17	1.08	2,056.25	20.00	32.79	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4124	J-2217	Forest	TRUE	1.00	2,057.60	2.88	2,059.48	20.00	39.10	20.00	20.01	J-2698	(N/A)	17.28	J-1198
545	J-310	Lakes	TRUE	1.00	2,058.41	1.20	2,058.61	20.00	68.42	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6587	J-3561	Lakes	TRUE	1.00	2,058.41	1.20	2,058.61	20.00	67.00	20.00	20.00	J-2323	(N/A)	17.28	J-1198
1861	J-964	Forest	TRUE	1.00	2,062.19	1.48	2,062.67	20.00	20.00	20.00	21.97	J-965	(N/A)	16.88	J-1198
5815	J-3110	Forest	TRUE	1.00	2,062.56	2.28	2,063.84	20.00	39.73	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5816	J-3111	Forest	TRUE	1.00	2,062.56	1.48	2,063.04	20.00	38.40	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5067	J-2682	Forest	TRUE	1.00	2,072.82	1.08	2,072.90	20.00	61.89	20.00	20.00	J-3855	(N/A)	17.28	J-1198
1013	J-553	Forest	TRUE	1.00	2,072.82	1.28	2,073.10	20.00	62.78	20.00	20.00	J-3855	(N/A)	17.28	J-1198
5629	J-3002	Forest	TRUE	1.00	2,073.25	1.68	2,073.93	20.00	42.40	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5630	J-3003	Forest	TRUE	1.00	2,073.25	1.08	2,073.33	20.00	41.56	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4208	J-2251	Forest	TRUE	1.00	2,073.43	1.88	2,074.31	20.00	37.88	20.00	20.00	J-895	(N/A)	17.28	J-1198
4190	J-2246	Forest	TRUE	1.00	2,075.69	2.68	2,077.37	20.00	20.38	20.00	20.00	J-2995	(N/A)	17.28	J-1198
6365	J-3431	Forest	TRUE	1.00	2,075.99	2.28	2,077.28	20.00	28.51	20.00	20.00	J-4119	(N/A)	16.88	J-1198
6364	J-3430	Forest	TRUE	1.00	2,075.99	1.08	2,076.07	20.00	27.52	20.00	20.00	J-4119	(N/A)	16.88	J-1198
6696	J-3626	Forest	TRUE	1.00	2,076.01	2.88	2,077.90	20.00	20.07	20.00	20.03	J-967	(N/A)	17.28	J-1198
4048	J-2185	Forest	TRUE	1.00	2,076.47	1.88	2,077.35	20.00	22.04	20.00	20.00	J-967	(N/A)	17.28	J-1198
6895	J-3625	Forest	TRUE	1.00	2,076.47	1.08	2,076.54	20.00	21.71	20.00	20.00	J-967	(N/A)	17.28	J-1198
7548	J-4047	Forest	TRUE	1.00	2,080.47	1.48	2,080.95	20.00	42.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7227	J-3924	Forest	TRUE	1.00	2,080.65	1.28	2,080.93	20.00	29.09	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6620	J-3580	Forest	TRUE	1.00	2,080.65	1.08	2,080.73	20.00	29.02	20.00	20.00	J-3438	(N/A)	17.28	J-1198
7402	J-3994	Forest	TRUE	1.00	2,080.65	1.28	2,080.93	20.00	29.11	20.00	20.00	J-3438	(N/A)	17.28	J-1198
6621	J-3581	Forest	TRUE	1.00	2,080.68	1.08	2,080.75	20.00	27.93	20.00	20.00	J-3438	(N/A)	17.28	J-1198
3973	J-2152	Forest	TRUE	1.00	2,081.49	2.28	2,082.77	20.00	22.90	20.00	20.00	J-2153	(N/A)	17.28	J-1198
7551	J-4048	Forest	TRUE	1.00	2,083.02	1.88	2,083.90	20.00	42.53	20.00	20.00	J-2919	(N/A)	17.28	J-1198
137	J-67	Forest	TRUE	1.00	2,086.98	1.88	2,087.86	20.00	57.50	20.00	20.00	J-941	(N/A)	17.28	J-1198
6263	J-3371	Forest	TRUE	1.00	2,086.98	1.88	2,087.86	20.00	55.75	20.00	20.00	J-941	(N/A)	17.28	J-1198
4779	J-2515	Forest	TRUE	1.00	2,088.67	2.08	2,089.75	20.00	37.29	20.00	20.00	J-895	(N/A)	17.28	J-1198
4780	J-2516	Forest	TRUE	1.00	2,088.68	1.48	2,089.15	20.00	36.73	20.00	20.00	J-895	(N/A)	17.28	J-1198
5750	J-3073	Lakes	TRUE	1.00	2,089.87	1.20	2,090.07	20.00	21.43	20.00	20.06	J-1586	(N/A)	17.28	J-1198
5751	J-3074	Lakes	TRUE	1.00	2,090.54	1.20	2,090.74	20.00	20.19	20.00	20.00	J-1586	(N/A)	17.28	J-1198
7768	J-4111	Forest	TRUE	1.00	2,091.27	1.88	2,092.15	20.00	33.75	20.00	20.00	J-2219	(N/A)	17.28	J-1198
2928	J-1584	Forest	TRUE	1.00	2,101.38	2.28	2,102.66	20.00	42.58	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4882	J-2573	Forest	TRUE	1.00	2,102.44	1.08	2,102.51	20.00	42.06	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4883	J-2574	Forest	TRUE	1.00	2,102.48	1.88	2,103.36	20.00	41.42	20.00	20.01	J-2919	(N/A)	17.28	J-1198
2722	J-1469	Forest	TRUE	1.00	2,104.77	1.08	2,104.84	20.00	20.00	20.00	22.88	J-1816	(N/A)	16.87	J-1198
5014	J-2650	Forest	TRUE	1.00	2,104.96	3.29	2,107.25	20.00	20.01	20.00	20.45	J-2055	(N/A)	17.28	J-1198
7608	J-4064	Forest	TRUE	1.00	2,105.07	1.48	2,105.55	20.00	39.47	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6997	J-3802	Forest	TRUE	1.00	2,105.32	1.48	2,105.80	20.00	25.96	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7996	J-4157	Forest	TRUE	1.00	2,105.60	1.48	2,106.08	20.00	34.47	20.00	20.00	J-2919</			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5323	J-2827	Forest	TRUE	1.00	2,117.75	2.28	2,119.04	20.00	21.17	20.00	20.02	J-2113	(N/A)	14.06	J-1198
8076	J-4166	Lakes	TRUE	1.00	2,120.54	1.20	2,120.74	20.00	20.34	20.00	20.05	J-1917	(N/A)	17.28	J-1198
5376	J-2858	Forest	TRUE	1.00	2,120.58	1.48	2,121.05	20.00	20.00	20.00	20.77	J-2859	(N/A)	16.86	J-1198
3515	J-1917	Lakes	TRUE	1.00	2,121.02	1.20	2,121.22	20.00	20.00	20.00	20.86	J-3776	(N/A)	17.28	J-1198
4249	J-2264	Forest	TRUE	1.00	2,121.97	2.68	2,123.66	20.00	27.46	20.00	20.02	J-2280	(N/A)	17.28	J-1198
6381	J-3440	Forest	TRUE	1.00	2,122.28	1.48	2,122.76	20.00	32.11	20.00	20.02	J-2280	(N/A)	17.28	J-1198
6382	J-3441	Forest	TRUE	1.00	2,122.28	1.28	2,122.56	20.00	30.57	20.00	20.02	J-2280	(N/A)	17.28	J-1198
6912	J-3753	Forest	TRUE	1.00	2,124.36	1.08	2,124.44	20.00	23.84	20.00	20.06	J-2729	(N/A)	17.28	J-1198
6913	J-3754	Forest	TRUE	1.00	2,124.59	1.08	2,124.67	20.00	22.69	20.00	20.04	J-2729	(N/A)	17.28	J-1198
5377	J-2859	Forest	TRUE	1.00	2,128.33	1.48	2,128.81	20.00	20.00	20.00	20.18	J-2858	(N/A)	16.86	J-1198
4031	J-2176	Forest	TRUE	1.00	2,129.02	1.08	2,129.10	20.00	20.00	20.00	20.68	J-4024	(N/A)	17.28	J-1198
6433	J-3470	Lakes	TRUE	1.00	2,131.73	1.20	2,131.93	20.00	20.00	20.00	21.23	J-3471	(N/A)	17.28	J-1198
6583	J-3559	Forest	TRUE	1.00	2,132.55	1.28	2,132.83	20.00	20.00	20.00	21.32	J-3558	(N/A)	17.28	J-1198
680	J-392	Stewartsville	TRUE	1.00	2,133.07	1.11	2,133.19	20.00	87.15	20.00	20.00	J-676	(N/A)	17.28	J-1198
4696	J-2469	Stewartsville	TRUE	1.00	2,133.07	1.40	2,133.48	20.00	86.51	20.00	20.00	J-676	(N/A)	17.28	J-1198
7111	J-3866	Forest	TRUE	1.00	2,133.26	1.08	2,133.33	20.00	27.83	20.00	20.00	J-3914	(N/A)	17.28	J-1198
3338	J-1816	Forest	TRUE	1.00	2,133.97	2.68	2,135.65	20.00	20.00	20.00	20.56	J-1469	(N/A)	16.86	J-1198
2497	J-1339	Forest	TRUE	1.00	2,134.26	1.08	2,134.33	20.00	21.14	20.00	20.00	J-4176	(N/A)	17.28	J-1198
4458	J-2333	Forest	TRUE	1.00	2,134.33	1.08	2,134.40	20.00	27.86	20.00	20.00	J-3914	(N/A)	17.28	J-1198
4459	J-2334	Forest	TRUE	1.00	2,134.34	1.28	2,134.61	20.00	27.61	20.00	20.00	J-3914	(N/A)	17.28	J-1198
7141	J-3882	Forest	TRUE	1.00	2,136.12	1.28	2,136.39	20.00	27.91	20.00	20.00	J-3914	(N/A)	17.28	J-1198
7456	J-4012	Forest	TRUE	1.00	2,136.17	1.28	2,136.44	20.00	26.52	20.00	20.00	J-3914	(N/A)	17.28	J-1198
1329	J-682	Lakes	TRUE	1.00	2,136.49	1.20	2,136.68	20.00	98.82	20.00	20.04	J-2323	(N/A)	17.28	J-1198
6647	J-3597	Lakes	TRUE	1.00	2,136.56	1.20	2,136.76	20.00	95.18	20.00	20.03	J-2323	(N/A)	17.28	J-1198
66	J-25	Forest	TRUE	1.00	2,139.29	1.08	2,139.37	20.00	50.89	20.00	20.00	J-941	(N/A)	17.28	J-1198
67	J-26	Forest	TRUE	1.00	2,139.30	1.08	2,139.37	20.00	50.24	20.00	20.00	J-941	(N/A)	17.28	J-1198
7149	J-3887	Forest	TRUE	1.00	2,141.64	1.88	2,142.52	20.00	38.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7148	J-3886	Forest	TRUE	1.00	2,142.47	1.08	2,142.55	20.00	38.56	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7489	J-4024	Forest	TRUE	1.00	2,143.64	2.28	2,144.93	20.00	20.00	20.00	20.58	J-4116	(N/A)	17.28	J-1198
2085	J-1100	Lakes	TRUE	1.00	2,144.87	1.63	2,145.51	20.00	20.00	20.00	23.86	J-1101	(N/A)	17.28	J-1198
6055	J-3245	Forest	TRUE	1.00	2,145.01	2.08	2,146.09	20.00	38.37	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6056	J-3246	Forest	TRUE	1.00	2,145.01	1.48	2,145.49	20.00	37.30	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6434	J-3471	Lakes	TRUE	1.00	2,145.31	1.29	2,145.60	20.00	20.00	20.00	20.21	J-3470	(N/A)	17.28	J-1198
5195	J-2752	Forest	TRUE	1.00	2,146.00	2.88	2,147.89	20.00	20.01	20.00	21.04	J-2257	(N/A)	17.28	J-1198
1082	J-582	Forest	TRUE	1.00	2,147.13	1.08	2,147.20	20.00	78.14	20.00	20.00	J-3855	(N/A)	17.28	J-1198
5284	J-2804	Forest	TRUE	1.00	2,147.13	1.48	2,147.60	20.00	77.74	20.00	20.00	J-3855	(N/A)	17.28	J-1198
7345	J-3973	Forest	TRUE	1.00	2,149.99	1.28	2,150.27	20.00	22.67	20.00	20.00	J-3438	(N/A)	17.28	J-1198
7346	J-3974	Forest	TRUE	1.00	2,150.00	1.48	2,150.48	20.00	21.55	20.00	20.00	J-3438	(N/A)	17.28	J-1198
591	J-338	Stewartsville	TRUE	1.00	2,155.07	1.11	2,155.18	20.00	92.78	20.00	20.00	J-676	(N/A)	17.28	J-1198
592	J-339	Stewartsville	TRUE	1.00	2,155.07	1.11	2,155.18	20.00	91.89	20.00	20.00	J-676	(N/A)	17.28	J-1198
6825	J-3701	Forest	TRUE	1.00	2,155.53	1.08	2,155.60	20.00	23.56	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6826	J-3702	Forest	TRUE	1.00	2,155.53	1.08	2,155.61	20.00	22.04	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4222	J-2257	Forest	TRUE	1.00	2,159.57	1.28	2,159.84	20.00	20.21	20.00	20.02	J-2752	(N/A)	17.28	J-1198
6582	J-3558	Forest	TRUE	1.00	2,161.48	2.08	2,162.56	20.00	20.00	20.00	20.13	J-4024	(N/A)	17.28	J-1198
6091	J-3268	Lakes	TRUE	1.00	2,162.58	1.20	2,162.78	20.00	33.91	20.00	20.00	J-3016	(N/A)	17.28	J-1198
6090	J-3267	Lakes	TRUE	1.00	2,162.59	1.20	2,162.79	20.00	32.41	20.00	20.00	J-3016	(N/A)	17.28	J-1198
7029	J-3820	Forest	TRUE	1.00	2,162.67	1.48	2,163.15	20.00	44.56	20.00	20.00	J-941	(N/A)	17.28	J-1198
95	J-44	Forest	TRUE	1.00	2,162.85	2.08	2,163.93	20.00	49.06	20.00	20.00	J-941	(N/A)	17.28	J-1198
8036	J-4160	Forest	TRUE	1.00	2,165.01	1.08	2,165.09	20.00	20.01	20.00	23.93	J-1197	(N/A)	16.85	J-1198
3581	J-1953	Forest	TRUE	1.00	2,172.14	1.88	2,173.02	20.00	30.24	20.00	20.00	J-1044	(N/A)	16.85	J-1198
6237	J-3355	Forest	TRUE	1.00	2,172.84	1.48	2,173.31	20.00	27.63	20.00	20.00	J-1394	(N/A)	17.28	J-1198
7151	J-3888	Forest	TRUE	1.00	2,172.84	1.08	2,172.91	20.00	27.71	20.00	20.00	J-1394	(N/A)	17.28	J-1198
7422	J-4001	Forest	TRUE	1.00	2,172.84	2.68	2,174.52	20.00	27.19	20.00	20.00	J-1394	(N/A)	17.28	J-1198
6236	J-3354	Forest	TRUE	1.00	2,172.84	1.88	2,173.72	20.00	26.27	20.00	20.00	J-1394	(N/A)	17.28	J-1198
7218	J-3919	Forest	TRUE	1.00	2,172.96	1.48	2,173.44	20.00	26.61	20.00	20.00	J-3914	(N/A)	17.28	J-1198
7219	J-3920	Forest	TRUE	1.00	2,172.98	1.08	2,173.05	20.00	26.16	20.00	20.00	J-3914	(N/A)	17.28	J-1198
5726	J-3059	Forest	TRUE	1.00	2,175.80	1.08	2,175.88	20.00	20.00	20.00	22.07	J-3060	(N/A)	16.85	J-1198
6882	J-3735	Forest	TRUE	1.00	2,188.69	1.28	2,188.97	20.00	20.00	20.00	22.45	J-691	(N/A)	17.28	J-1198
5727	J-3060	Forest	TRUE	1.00	2,190.00	1.48	2,190.48	20.00	20.97	20.00	20.02	J-3059	(N/A)	16.84	J-1198
3905	J-2120	Forest	TRUE	1.00	2,193.33	1.48	2,193.81	20.00	20.91	20.00	20.02	J-3059	(N/A)	16.84	J-1198
1867	J-968	Forest	TRUE	1.00	2,203.05	1.88	2,203.93	20.00	24.80	20.00	20.00	J-969	(N/A)	16.84	J-1198
2757	J-1490	Forest	TRUE	1.00	2,203.05	1.88	2,203.93	20.00	23.56	20.00	20.00	J-969	(N/A)	16.84	J-1198
5534	J-2948	Forest	TRUE	1.00	2,203.05	1.08	2,203.12	20.00	22.43	20.00	20.00	J-969	(N/A)	16.84	J-1198
2086	J-1101	Lakes	TRUE	1.00	2,207.68	1.46	2,208.14	20.00	20.00	20.00	20.00	J-1100	(N/A)	17.28	J-1198
4227	J-2258	Forest	TRUE	1.00	2,209.45	1.08	2,209.52	20.00	48.73	20.00	20.00	J-2145	(N/A)	17.28	J-1198
6805	J-3690	Forest	TRUE	1.00	2,214.64	1.08	2,214.71	20.00	20.02	20.00	20.66	J-4176	(N/A)	17.28	J-1198
3744	J-2043	Forest	TRUE	1.00	2,215.14	1.08	2,215.22	20.00	35.43	20.00	20.00	J-1206	(N/A)	13.79	J-1198
2814	J-1523	Forest	TRUE	1.00	2,216.26	1.48	2,216.74	20.00	27.24	20.00	20.05	J-2729	(N/A)	17.28	J-1198
7288	J-3951	Forest	TRUE	1.00	2,222.74	2.08	2,223.82	20.00	20.00	20.00	20.50	J-3952	(N/A)	17.28	J-1198
6804	J-3689	Forest	TRUE	1.00	2,222.79	1.08	2,222.87	20.00	21.30	20.00	20.00	J-4176	(N/A)	17.28	J-1198
29	J-1	Forest	TRUE	1.00	2,223.98	2.48	2,225.47	20.00	21.42	20.00	20.00	J-2	(N/A)	17.28	J-1198
87	J-39	Forest	TRUE	1.00	2,227.45	2.48	2,228.93	20.00	39.72	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1214	J-636	Lakes	TRUE	1.00	2,232.44	1.55	2,232.99	20.00	94.33	20.00	20.03	J-2323	(N/A)	17.28	J-1198
6067	J-3253	Lakes	TRUE	1.00	2,232.47	1.20	2,232.67	20.00	93.90	20.00	20.03	J-2323	(N/A)	17.28	J-1198
6031	J-3230	Forest	TRUE	1.00	2,233.94	1.48	2,234.42	20.00	20.00	20.00	20.95	J-3231	(N/A)	16.83	J-1198
7289	J-3952	Forest	TRUE	1.00	2,235.32	1.48	2,235.80	20.00	20.03	20.00	20.02	J-3951	(N/A)	17.28	J-1198
86	J-38	Forest	TRUE	1.00	2,235.96	2.28	2,237.24	20.00	38.99	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3087	J-1666	Forest	TRUE	1.00	2,236.69	1.48	2,237.17	20.00	20.00	20.00	21.00	J-1665	(N/A)	17	

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7249	J-3935	Forest	TRUE	1.00	2,257.12	1.08	2,257.19	20.00	20.43	20.00	20.02	J-4176	(N/A)	17.28	J-1198
6777	J-3673	Forest	TRUE	1.00	2,257.31	1.88	2,258.19	20.00	29.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6776	J-3672	Forest	TRUE	1.00	2,257.31	1.88	2,258.19	20.00	31.84	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7248	J-3934	Forest	TRUE	1.00	2,257.43	1.08	2,257.51	20.00	20.97	20.00	20.00	J-4176	(N/A)	17.28	J-1198
5845	J-3127	Forest	TRUE	1.00	2,257.61	1.48	2,258.09	20.00	21.82	20.00	20.01	J-3059	(N/A)	16.82	J-1198
3607	J-1967	Forest	TRUE	1.00	2,257.72	1.08	2,257.80	20.00	20.09	20.00	20.04	J-964	(N/A)	16.82	J-1198
3453	J-1880	Forest	TRUE	1.00	2,257.79	2.28	2,259.08	20.00	30.46	20.00	20.00	J-3059	(N/A)	16.82	J-1198
3454	J-1881	Forest	TRUE	1.00	2,257.79	1.28	2,258.07	20.00	22.78	20.00	20.00	J-3059	(N/A)	16.82	J-1198
5185	J-2747	Forest	TRUE	1.00	2,258.85	1.88	2,259.73	20.00	20.00	20.00	21.08	J-2919	(N/A)	17.28	J-1198
7007	J-3808	Forest	TRUE	1.00	2,259.02	1.88	2,259.90	20.00	20.00	20.00	21.86	J-2919	(N/A)	17.28	J-1198
7378	J-3984	Forest	TRUE	1.00	2,260.01	1.08	2,260.08	20.00	20.00	20.00	20.04	J-964	(N/A)	16.82	J-1198
7323	J-3963	Forest	TRUE	1.00	2,262.73	1.48	2,263.20	20.00	20.00	20.00	20.00	J-2278	(N/A)	16.82	J-1198
1577	J-782	Lakes	TRUE	1.00	2,266.85	1.20	2,267.05	20.00	20.01	20.00	20.05	J-781	(N/A)	17.28	J-1198
6168	J-3313	Forest	TRUE	1.00	2,268.81	2.68	2,270.50	20.00	25.15	20.00	20.00	J-2280	(N/A)	17.28	J-1198
6169	J-3314	Forest	TRUE	1.00	2,268.82	1.28	2,269.09	20.00	23.80	20.00	20.00	J-2280	(N/A)	17.28	J-1198
887	J-498	Forest	TRUE	1.00	2,271.83	1.88	2,272.71	20.00	23.74	20.00	20.00	J-1217	(N/A)	17.28	J-1198
1105	J-592	Forest	TRUE	1.00	2,271.95	1.08	2,272.03	20.00	34.89	20.00	20.00	J-1217	(N/A)	17.28	J-1198
5712	J-3051	Forest	TRUE	1.00	2,271.95	1.28	2,272.23	20.00	43.08	20.00	20.00	J-1217	(N/A)	17.28	J-1198
6611	J-3575	Forest	TRUE	1.00	2,271.95	1.28	2,272.23	20.00	33.95	20.00	20.00	J-1217	(N/A)	17.28	J-1198
5711	J-3050	Forest	TRUE	1.00	2,271.95	1.48	2,272.43	20.00	44.20	20.00	20.00	J-1217	(N/A)	17.28	J-1198
349	J-186	Forest	TRUE	1.00	2,271.95	1.08	2,272.03	20.00	48.77	20.00	20.00	J-1217	(N/A)	17.28	J-1198
350	J-187	Forest	TRUE	1.00	2,271.95	1.08	2,272.03	20.00	48.91	20.00	20.00	J-1217	(N/A)	17.28	J-1198
4392	J-2310	Forest	TRUE	1.00	2,273.22	2.48	2,274.70	20.00	28.80	20.00	20.00	J-1525	(N/A)	17.28	J-1198
5184	J-2746	Forest	TRUE	1.00	2,274.06	1.68	2,274.74	20.00	20.23	20.00	20.02	J-2747	(N/A)	17.28	J-1198
6027	J-3228	Forest	TRUE	1.00	2,275.62	1.48	2,276.09	20.00	20.00	20.00	21.08	J-3972	(N/A)	17.28	J-1198
6134	J-3293	Forest	TRUE	1.00	2,278.48	1.88	2,279.36	20.00	36.47	20.00	20.00	J-1206	(N/A)	13.60	J-1198
6135	J-3294	Forest	TRUE	1.00	2,278.48	1.28	2,278.76	20.00	35.95	20.00	20.00	J-1206	(N/A)	13.60	J-1198
7342	J-3971	Forest	TRUE	1.00	2,279.60	1.08	2,279.67	20.00	20.00	20.00	20.63	J-3972	(N/A)	17.28	J-1198
3697	J-2017	Forest	TRUE	1.00	2,279.72	1.08	2,279.80	20.00	20.00	20.00	22.32	J-2919	(N/A)	17.28	J-1198
4745	J-2497	Stewartsville	TRUE	1.00	2,279.72	1.11	2,279.83	20.00	105.54	20.00	20.00	J-676	(N/A)	17.28	J-1198
1199	J-628	Stewartsville	TRUE	1.00	2,279.72	1.11	2,279.84	20.00	106.97	20.00	20.00	J-676	(N/A)	17.28	J-1198
7384	J-3987	Lakes	TRUE	1.00	2,281.54	1.29	2,281.82	20.00	20.00	20.00	22.43	J-2657	(N/A)	17.28	J-1198
3769	J-2054	Forest	TRUE	1.00	2,281.74	2.88	2,283.63	20.00	20.02	20.00	20.45	J-2747	(N/A)	17.28	J-1198
5151	J-2727	Forest	TRUE	1.00	2,283.80	1.48	2,284.28	20.00	20.43	20.00	20.04	J-964	(N/A)	16.81	J-1198
5152	J-2728	Forest	TRUE	1.00	2,284.03	1.88	2,284.91	20.00	21.40	20.00	20.02	J-964	(N/A)	16.81	J-1198
4999	J-2642	Forest	TRUE	1.00	2,286.14	1.48	2,286.62	20.00	28.43	20.00	20.00	J-1525	(N/A)	17.28	J-1198
4998	J-2641	Forest	TRUE	1.00	2,286.14	1.48	2,286.62	20.00	27.67	20.00	20.00	J-1525	(N/A)	17.28	J-1198
5379	J-2860	Forest	TRUE	1.00	2,290.58	1.88	2,291.46	20.00	22.61	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5380	J-2861	Forest	TRUE	1.00	2,290.71	1.08	2,290.78	20.00	21.42	20.00	20.00	J-2919	(N/A)	17.28	J-1198
719	J-414	Forest	TRUE	1.00	2,290.87	1.08	2,290.94	20.00	77.55	20.00	20.00	J-3090	(N/A)	16.81	J-1198
5778	J-3089	Forest	TRUE	1.00	2,292.48	1.08	2,292.55	20.00	60.56	20.00	20.00	J-941	(N/A)	17.28	J-1198
161	J-79	Forest	TRUE	1.00	2,292.48	1.28	2,292.76	20.00	60.21	20.00	20.00	J-941	(N/A)	17.28	J-1198
7343	J-3972	Forest	TRUE	1.00	2,295.52	1.08	2,295.60	20.00	20.00	20.00	20.09	J-3971	(N/A)	17.28	J-1198
5025	J-2657	Lakes	TRUE	1.00	2,296.57	1.63	2,297.20	20.00	20.60	20.00	20.02	J-3987	(N/A)	17.28	J-1198
5024	J-2656	Lakes	TRUE	1.00	2,296.93	1.29	2,297.21	20.00	21.43	20.00	20.00	J-3987	(N/A)	17.28	J-1198
6751	J-3658	Forest	TRUE	1.00	2,300.14	1.28	2,300.42	20.00	25.35	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7301	J-3956	Forest	TRUE	1.00	2,300.50	1.08	2,300.57	20.00	26.92	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6750	J-3657	Forest	TRUE	1.00	2,300.50	1.08	2,300.58	20.00	27.12	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7508	J-4030	Forest	TRUE	1.00	2,300.50	2.28	2,301.78	20.00	27.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5854	J-3132	Forest	TRUE	1.00	2,301.86	1.08	2,301.93	20.00	38.84	20.00	20.00	J-3059	(N/A)	16.80	J-1198
5853	J-3131	Forest	TRUE	1.00	2,301.86	2.88	2,303.74	20.00	37.35	20.00	20.00	J-3059	(N/A)	16.80	J-1198
6026	J-3227	Forest	TRUE	1.00	2,302.60	1.28	2,302.88	20.00	20.13	20.00	20.01	J-3972	(N/A)	17.28	J-1198
4987	J-2634	Forest	TRUE	1.00	2,303.01	1.48	2,303.48	20.00	20.00	20.00	20.82	J-2635	(N/A)	16.80	J-1198
5920	J-3168	Forest	TRUE	1.00	2,304.94	1.88	2,305.82	20.00	20.02	20.00	22.04	J-3167	(N/A)	17.28	J-1198
7677	J-4085	Forest	TRUE	1.00	2,306.75	1.48	2,307.23	20.00	20.02	20.00	22.65	J-3360	(N/A)	17.28	J-1198
4988	J-2635	Forest	TRUE	1.00	2,314.29	1.88	2,315.18	20.00	20.00	20.00	20.01	J-2634	(N/A)	16.80	J-1198
718	J-413	Forest	TRUE	1.00	2,314.80	1.08	2,314.88	20.00	73.74	20.00	20.00	J-3090	(N/A)	16.80	J-1198
5769	J-3084	Forest	TRUE	1.00	2,314.81	1.08	2,314.88	20.00	71.97	20.00	20.00	J-3090	(N/A)	16.80	J-1198
6261	J-3370	Forest	TRUE	1.00	2,318.63	2.08	2,319.71	20.00	20.02	20.00	21.42	J-3369	(N/A)	17.28	J-1198
3957	J-2144	Forest	TRUE	1.00	2,322.19	3.49	2,324.68	20.00	20.02	20.00	20.44	J-2919	(N/A)	17.28	J-1198
7582	J-4056	Forest	TRUE	1.00	2,323.54	1.48	2,324.02	20.00	30.14	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5627	J-3001	Forest	TRUE	1.00	2,323.86	1.48	2,324.33	20.00	23.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5626	J-3000	Forest	TRUE	1.00	2,323.86	1.08	2,323.93	20.00	25.39	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4209	J-2252	Forest	TRUE	1.00	2,324.22	2.28	2,325.50	20.00	21.92	20.00	20.00	J-895	(N/A)	17.28	J-1198
4461	J-2335	Lakes	TRUE	1.00	2,324.46	2.93	2,326.39	20.00	20.00	20.00	20.28	J-2336	(N/A)	17.28	J-1198
7486	J-4023	Lakes	TRUE	1.00	2,326.17	1.20	2,326.37	20.00	20.00	20.00	20.09	J-2335	(N/A)	17.28	J-1198
4146	J-2227	Forest	TRUE	1.00	2,326.49	1.48	2,326.96	20.00	20.00	20.00	20.14	J-2635	(N/A)	16.79	J-1198
7713	J-4096	Forest	TRUE	1.00	2,326.84	1.08	2,326.91	20.00	21.60	20.00	20.00	J-3168	(N/A)	17.28	J-1198
5919	J-3167	Forest	TRUE	1.00	2,326.84	2.08	2,327.92	20.00	20.63	20.00	20.00	J-3168	(N/A)	17.28	J-1198
4462	J-2336	Lakes	TRUE	1.00	2,326.93	1.20	2,327.13	20.00	20.00	20.00	20.00	J-2335	(N/A)	17.28	J-1198
6119	J-3284	Lakes	TRUE	1.00	2,327.14	1.20	2,327.33	20.00	75.96	20.00	20.00	J-2323	(N/A)	17.28	J-1198
829	J-469	Lakes	TRUE	1.00	2,327.14	1.20	2,327.34	20.00	79.17	20.00	20.00	J-2323	(N/A)	17.28	J-1198
5276	J-2799	Forest	TRUE	1.00	2,327.42	2.08	2,328.50	20.00	22.12	20.00	20.00	J-895	(N/A)	17.28	J-1198
5277	J-2800	Forest	TRUE	1.00	2,327.42	1.68	2,328.10	20.00	21.17	20.00	20.00	J-895	(N/A)	17.28	J-1198
7394	J-3990	Forest	TRUE	1.00	2,328.80	1.08	2,328.88	20.00	45.30	20.00	20.00	J-3904	(N/A)	16.79	J-1198
7395	J-3991	Forest	TRUE	1.00	2,328.80	1.48	2,329.28	20.00	46.39	20.00	20.00	J-3904	(N/A)	16.79	J-1198
6246	J-3361	Forest	TRUE	1.00	2,330.07	1.08	2,330.15	20.00	20.00	20.00	21.23	J-3360	(N/A)	17.28	J-1198
2156	J-1145	Forest	TRUE	1.00	2,339.51	1.08	2,339.59	20.00	20.00	20.00	20.19	J-			

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6900	J-3746	Forest	TRUE	1.00	2,361.55	1.08	2,361.62	20.00	41.69	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6901	J-3747	Forest	TRUE	1.00	2,361.66	1.28	2,361.94	20.00	39.58	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6915	J-3755	Forest	TRUE	1.00	2,362.00	1.88	2,362.88	20.00	29.44	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6916	J-3756	Forest	TRUE	1.00	2,362.00	1.28	2,362.28	20.00	28.73	20.00	20.00	J-2919	(N/A)	17.28	J-1198
853	J-481	Forest	TRUE	1.00	2,362.05	1.28	2,362.33	20.00	57.56	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3765	J-2052	Forest	TRUE	1.00	2,363.03	1.48	2,363.51	20.00	20.00	20.00	21.23	J-2919	(N/A)	17.28	J-1198
1228	J-642	Forest	TRUE	1.00	2,363.88	1.08	2,363.96	20.00	42.16	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5232	J-2774	Forest	TRUE	1.00	2,363.89	1.08	2,363.96	20.00	41.28	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5243	J-2781	Forest	TRUE	1.00	2,365.28	2.88	2,367.17	20.00	41.84	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5242	J-2780	Forest	TRUE	1.00	2,365.67	2.68	2,367.35	20.00	42.87	20.00	20.00	J-2919	(N/A)	17.28	J-1198
662	J-382	Forest	TRUE	1.00	2,366.06	2.48	2,367.54	20.00	67.78	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7019	J-3815	Forest	TRUE	1.00	2,367.23	1.48	2,367.71	20.00	20.01	20.00	22.96	J-3814	(N/A)	16.78	J-1198
6929	J-3763	Forest	TRUE	1.00	2,367.73	1.08	2,367.80	20.00	35.47	20.00	20.03	J-2729	(N/A)	17.28	J-1198
6930	J-3764	Forest	TRUE	1.00	2,367.74	1.08	2,367.82	20.00	34.17	20.00	20.03	J-2729	(N/A)	17.28	J-1198
4490	J-2352	Forest	TRUE	1.00	2,367.75	1.68	2,368.43	20.00	57.81	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1283	J-666	Forest	TRUE	1.00	2,367.76	1.68	2,368.44	20.00	58.37	20.00	20.00	J-2919	(N/A)	17.28	J-1198
661	J-381	Forest	TRUE	1.00	2,368.02	1.08	2,368.10	20.00	70.63	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4692	J-2467	Forest	TRUE	1.00	2,368.03	1.08	2,368.10	20.00	70.72	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7064	J-3839	Forest	TRUE	1.00	2,369.58	1.08	2,369.66	20.00	46.80	20.00	20.01	J-3855	(N/A)	17.28	J-1198
2706	J-1460	Forest	TRUE	1.00	2,369.83	1.28	2,370.11	20.00	54.42	20.00	20.00	J-3855	(N/A)	17.28	J-1198
650	J-374	Forest	TRUE	1.00	2,369.83	1.08	2,369.91	20.00	63.31	20.00	20.00	J-3855	(N/A)	17.28	J-1198
682	J-393	Forest	TRUE	1.00	2,370.40	2.28	2,371.68	20.00	65.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6420	J-3463	Forest	TRUE	1.00	2,375.08	1.28	2,375.36	20.00	32.95	20.00	20.00	J-4119	(N/A)	16.78	J-1198
6419	J-3462	Forest	TRUE	1.00	2,375.08	1.28	2,375.36	20.00	30.88	20.00	20.00	J-4119	(N/A)	16.78	J-1198
203	J-94	Forest	TRUE	1.00	2,375.62	2.28	2,376.90	20.00	45.59	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1355	J-688	Forest	TRUE	1.00	2,375.75	1.08	2,375.83	20.00	37.79	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6680	J-3616	Forest	TRUE	1.00	2,375.88	1.08	2,375.96	20.00	35.58	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1374	J-691	Forest	TRUE	1.00	2,378.24	1.68	2,378.92	20.00	20.43	20.00	20.00	J-3735	(N/A)	17.28	J-1198
395	J-216	Forest	TRUE	1.00	2,378.25	1.48	2,378.73	20.00	35.84	20.00	20.01	J-2919	(N/A)	17.28	J-1198
366	J-197	Forest	TRUE	1.00	2,378.25	1.08	2,378.33	20.00	35.74	20.00	20.01	J-2919	(N/A)	17.28	J-1198
367	J-198	Forest	TRUE	1.00	2,378.26	1.68	2,378.94	20.00	35.58	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4556	J-2390	Forest	TRUE	1.00	2,378.88	1.08	2,378.96	20.00	35.16	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5939	J-3179	Forest	TRUE	1.00	2,379.92	1.08	2,379.99	20.00	20.00	20.00	21.99	J-3178	(N/A)	17.28	J-1198
5933	J-3175	Forest	TRUE	1.00	2,380.43	1.68	2,381.11	20.00	20.06	20.00	20.02	J-3176	(N/A)	17.28	J-1198
1037	J-563	Forest	TRUE	1.00	2,380.72	1.48	2,381.20	20.00	58.52	20.00	20.00	J-3090	(N/A)	16.77	J-1198
5084	J-2691	Forest	TRUE	1.00	2,380.72	1.08	2,380.80	20.00	57.05	20.00	20.00	J-3090	(N/A)	16.77	J-1198
1225	J-641	Forest	TRUE	1.00	2,391.00	1.48	2,391.48	20.00	46.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3618	J-1973	Forest	TRUE	1.00	2,391.21	1.28	2,391.48	20.00	26.20	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5687	J-3036	Forest	TRUE	1.00	2,392.57	1.88	2,393.45	20.00	47.48	20.00	20.01	J-2919	(N/A)	17.28	J-1198
840	J-474	Forest	TRUE	1.00	2,392.83	1.28	2,393.10	20.00	48.90	20.00	20.00	J-2919	(N/A)	17.28	J-1198
2881	J-1561	Forest	TRUE	1.00	2,394.29	1.08	2,394.37	20.00	20.06	20.00	20.00	J-4160	(N/A)	16.77	J-1198
4481	J-2347	Forest	TRUE	1.00	2,396.67	1.68	2,397.35	20.00	20.03	20.00	20.30	J-2272	(N/A)	17.28	J-1198
3126	J-1690	Forest	TRUE	1.00	2,397.97	1.08	2,398.05	20.00	46.95	20.00	20.01	J-2919	(N/A)	17.28	J-1198
841	J-475	Forest	TRUE	1.00	2,398.40	1.88	2,399.28	20.00	48.22	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1224	J-640	Forest	TRUE	1.00	2,399.70	1.48	2,400.17	20.00	54.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6577	J-3555	Forest	TRUE	1.00	2,399.70	1.68	2,400.38	20.00	52.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4270	J-2272	Forest	TRUE	1.00	2,399.82	2.88	2,401.71	20.00	20.02	20.00	20.20	J-2347	(N/A)	17.28	J-1198
536	J-304	Forest	TRUE	1.00	2,400.08	1.08	2,400.16	20.00	27.95	20.00	20.00	J-1217	(N/A)	17.28	J-1198
7541	J-4044	Forest	TRUE	1.00	2,404.37	1.88	2,405.25	20.00	35.16	20.00	20.00	J-4119	(N/A)	16.77	J-1198
537	J-305	Forest	TRUE	1.00	2,406.47	1.28	2,406.74	20.00	24.38	20.00	20.00	J-1217	(N/A)	17.28	J-1198
6398	J-3450	Forest	TRUE	1.00	2,406.56	1.08	2,406.64	20.00	23.11	20.00	20.00	J-1217	(N/A)	17.28	J-1198
104	J-50	Forest	TRUE	1.00	2,407.80	1.48	2,408.28	20.00	23.22	20.00	20.00	J-2114	(N/A)	17.28	J-1198
5838	J-3123	Forest	TRUE	1.00	2,407.80	1.08	2,407.88	20.00	21.79	20.00	20.00	J-2114	(N/A)	17.28	J-1198
2141	J-1136	Forest	TRUE	1.00	2,410.03	1.48	2,410.51	20.00	20.62	20.00	20.00	J-3179	(N/A)	17.28	J-1198
5938	J-3178	Forest	TRUE	1.00	2,410.03	1.08	2,410.11	20.00	20.52	20.00	20.00	J-3179	(N/A)	17.28	J-1198
143	J-70	Forest	TRUE	1.00	2,410.41	1.48	2,410.89	20.00	41.15	20.00	20.00	J-941	(N/A)	17.28	J-1198
7018	J-3814	Forest	TRUE	1.00	2,411.32	1.08	2,411.40	20.00	20.01	20.00	20.45	J-4160	(N/A)	16.76	J-1198
5555	J-2959	Forest	TRUE	1.00	2,411.51	2.28	2,412.79	20.00	36.48	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1146	J-606	Forest	TRUE	1.00	2,411.88	1.48	2,412.36	20.00	37.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3363	J-1831	Lakes	TRUE	1.00	2,418.97	2.15	2,420.12	20.00	20.00	20.00	24.74	J-1896	(N/A)	17.28	J-1198
187	J-90	Forest	TRUE	1.00	2,421.29	2.48	2,422.77	20.00	21.49	20.00	20.00	J-3176	(N/A)	17.28	J-1198
4456	J-2332	Stewartsville	TRUE	1.00	2,421.40	1.26	2,421.65	20.00	96.30	20.00	20.00	J-676	(N/A)	17.28	J-1198
1198	J-627	Stewartsville	TRUE	1.00	2,421.40	2.55	2,422.95	20.00	96.65	20.00	20.00	J-676	(N/A)	17.28	J-1198
1169	J-614	Forest	TRUE	1.00	2,427.78	1.48	2,428.26	20.00	43.99	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4684	J-2463	Forest	TRUE	1.00	2,427.79	2.48	2,429.27	20.00	43.32	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5053	J-2674	Forest	TRUE	1.00	2,427.88	2.28	2,429.16	20.00	30.43	20.00	20.00	J-895	(N/A)	17.28	J-1198
5054	J-2675	Forest	TRUE	1.00	2,427.88	1.48	2,428.36	20.00	29.52	20.00	20.00	J-895	(N/A)	17.28	J-1198
5612	J-2992	Forest	TRUE	1.00	2,430.01	1.48	2,430.49	20.00	31.04	20.00	20.00	J-2224	(N/A)	16.76	J-1198
5613	J-2993	Forest	TRUE	1.00	2,430.01	1.48	2,430.49	20.00	31.45	20.00	20.00	J-2224	(N/A)	16.76	J-1198
194	J-92	Forest	TRUE	1.00	2,431.46	1.08	2,431.54	20.00	28.94	20.00	20.00	J-2038	(N/A)	17.28	J-1198
3287	J-1788	Forest	TRUE	1.00	2,431.49	1.08	2,431.57	20.00	25.80	20.00	20.00	J-2038	(N/A)	17.28	J-1198
5581	J-2974	Forest	TRUE	1.00	2,431.50	2.28	2,432.78	20.00	24.82	20.00	20.00	J-2038	(N/A)	17.28	J-1198
669	J-386	Forest	TRUE	1.00	2,431.76	2.08	2,432.85	20.00	47.31	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5591	J-2980	Forest	TRUE	1.00	2,431.95	1.48	2,432.43	20.00	45.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
695	J-400	Forest	TRUE	1.00	2,432.40	2.48	2,433.88	20.00	28.63	20.00	20.00	J-1217	(N/A)	17.28	J-1198
3390	J-1844	Lakes	TRUE	1.00	2,434.13	1.20	2,434.33	20.00	20.01	20.00	24.91	J-2433	(N/A)	17.28	J-1198
4934	J-2604	Forest	TRUE	1.00	2,434.58	1.48	2,435.05	20.00	20.00	20.00	20.19	J-2919	(N/A)	17.28	J-1198
347	J-185	Forest	TRUE	1.00	2,435.27	1.48	2,435.75	20.00	47.16	20.00	20.00	J-2919	(N/A)	17.28	J-1198</

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7279	J-3947	Forest	TRUE	1.00	2,454.28	1.08	2,454.35	20.00	29.57	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6918	J-3757	Forest	TRUE	1.00	2,454.28	1.68	2,454.96	20.00	31.29	20.00	20.00	J-2919	(N/A)	17.28	J-1198
103	J-49	Forest	TRUE	1.00	2,464.33	2.28	2,465.61	20.00	26.40	20.00	20.00	J-2114	(N/A)	17.28	J-1198
6601	J-3569	Lakes	TRUE	1.00	2,464.37	1.20	2,464.57	20.00	20.00	20.00	22.05	J-3568	(N/A)	17.28	J-1198
64	J-24	Forest	TRUE	1.00	2,479.75	1.68	2,480.43	20.00	30.72	20.00	20.00	J-3176	(N/A)	17.28	J-1198
4945	J-2610	Forest	TRUE	1.00	2,479.77	1.08	2,479.85	20.00	29.80	20.00	20.00	J-3176	(N/A)	17.28	J-1198
952	J-525	Lakes	TRUE	1.00	2,481.53	1.20	2,481.73	20.00	85.03	20.00	20.05	J-2323	(N/A)	17.28	J-1198
7014	J-3812	Lakes	TRUE	1.00	2,482.39	1.20	2,482.58	20.00	81.59	20.00	20.00	J-2323	(N/A)	17.28	J-1198
3868	J-2101	Forest	TRUE	1.00	2,483.48	1.08	2,483.55	20.00	27.93	20.00	20.01	J-3176	(N/A)	17.28	J-1198
41	J-9	Forest	TRUE	1.00	2,483.55	1.08	2,483.62	20.00	36.60	20.00	20.01	J-3176	(N/A)	17.28	J-1198
42	J-10	Forest	TRUE	1.00	2,483.55	1.48	2,484.03	20.00	36.50	20.00	20.01	J-3176	(N/A)	17.28	J-1198
47	J-13	Forest	TRUE	1.00	2,483.61	1.68	2,484.29	20.00	30.99	20.00	20.00	J-3176	(N/A)	17.28	J-1198
4630	J-2433	Lakes	TRUE	1.00	2,484.40	1.20	2,484.60	20.00	20.01	20.00	20.88	J-2434	(N/A)	17.28	J-1198
648	J-373	Forest	TRUE	1.00	2,484.86	1.68	2,485.54	20.00	72.08	20.00	20.00	J-2145	(N/A)	17.28	J-1198
6182	J-3321	Forest	TRUE	1.00	2,484.86	1.48	2,485.34	20.00	73.10	20.00	20.00	J-2145	(N/A)	17.28	J-1198
4098	J-2207	Lakes	TRUE	1.00	2,487.09	2.24	2,488.33	20.00	28.58	20.00	20.00	J-1722	(N/A)	17.28	J-1198
4186	J-2244	Lakes	TRUE	1.00	2,487.09	1.72	2,487.81	20.00	28.30	20.00	20.00	J-1722	(N/A)	17.28	J-1198
5223	J-2768	Forest	TRUE	1.00	2,487.40	2.08	2,488.48	20.00	27.76	20.00	20.00	J-2280	(N/A)	17.28	J-1198
5224	J-2769	Forest	TRUE	1.00	2,487.40	2.48	2,488.89	20.00	26.70	20.00	20.00	J-2280	(N/A)	17.28	J-1198
344	J-183	Forest	TRUE	1.00	2,488.32	1.08	2,488.39	20.00	48.32	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7094	J-3856	Forest	TRUE	1.00	2,488.55	1.88	2,489.43	20.00	32.97	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3362	J-1830	Lakes	TRUE	1.00	2,488.67	1.29	2,488.96	20.00	20.88	20.00	20.02	J-1896	(N/A)	17.28	J-1198
4132	J-2221	Forest	TRUE	1.00	2,488.98	2.08	2,490.06	20.00	46.14	20.00	20.01	J-2212	(N/A)	17.28	J-1198
343	J-182	Forest	TRUE	1.00	2,489.06	1.08	2,489.14	20.00	48.28	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6048	J-3241	Forest	TRUE	1.00	2,489.47	2.28	2,490.75	20.00	20.19	20.00	20.00	J-3240	(N/A)	17.28	J-1198
6600	J-3568	Lakes	TRUE	1.00	2,490.05	1.29	2,490.34	20.00	20.00	20.00	20.00	J-3569	(N/A)	17.28	J-1198
5621	J-2997	Forest	TRUE	1.00	2,490.13	1.08	2,490.21	20.00	52.41	20.00	20.01	J-2919	(N/A)	17.28	J-1198
276	J-140	Forest	TRUE	1.00	2,490.14	3.09	2,492.22	20.00	53.79	20.00	20.01	J-2919	(N/A)	17.28	J-1198
275	J-139	Forest	TRUE	1.00	2,490.28	1.88	2,491.16	20.00	53.95	20.00	20.01	J-2919	(N/A)	17.28	J-1198
747	J-428	Forest	TRUE	1.00	2,492.61	1.28	2,492.89	20.00	41.23	20.00	20.00	J-2919	(N/A)	17.28	J-1198
746	J-427	Forest	TRUE	1.00	2,493.34	1.08	2,493.42	20.00	38.08	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3204	J-1737	Forest	TRUE	1.00	2,493.53	1.48	2,494.01	20.00	31.34	20.00	20.00	J-3	(N/A)	16.73	J-1198
2870	J-1555	Forest	TRUE	1.00	2,493.53	1.08	2,493.61	20.00	26.72	20.00	20.00	J-3	(N/A)	16.73	J-1198
3205	J-1738	Forest	TRUE	1.00	2,493.53	1.08	2,493.61	20.00	28.99	20.00	20.00	J-3	(N/A)	16.73	J-1198
6178	J-3319	Forest	TRUE	1.00	2,493.53	1.08	2,493.61	20.00	27.20	20.00	20.00	J-3	(N/A)	16.73	J-1198
4631	J-2434	Lakes	TRUE	1.00	2,493.64	1.20	2,493.83	20.00	20.12	20.00	20.05	J-2433	(N/A)	17.28	J-1198
7308	J-3958	Lakes	TRUE	1.00	2,493.79	1.20	2,493.99	20.00	20.42	20.00	20.03	J-2433	(N/A)	17.28	J-1198
121	J-58	Forest	TRUE	1.00	2,493.94	1.08	2,494.01	20.00	69.67	20.00	20.00	J-2145	(N/A)	17.28	J-1198
6306	J-3396	Forest	TRUE	1.00	2,493.96	1.08	2,494.04	20.00	29.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6305	J-3395	Forest	TRUE	1.00	2,493.98	1.28	2,494.26	20.00	31.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4743	J-2496	Lakes	TRUE	1.00	2,494.21	1.55	2,494.76	20.00	26.75	20.00	20.00	J-2433	(N/A)	17.28	J-1198
4742	J-2495	Lakes	TRUE	1.00	2,494.21	1.72	2,494.93	20.00	25.66	20.00	20.00	J-2433	(N/A)	17.28	J-1198
5357	J-2847	Lakes	TRUE	1.00	2,494.21	1.20	2,494.41	20.00	24.68	20.00	20.00	J-2433	(N/A)	17.28	J-1198
5356	J-2846	Lakes	TRUE	1.00	2,494.21	1.20	2,494.41	20.00	23.09	20.00	20.00	J-2433	(N/A)	17.28	J-1198
3389	J-1843	Lakes	TRUE	1.00	2,494.21	1.20	2,494.41	20.00	21.17	20.00	20.00	J-2433	(N/A)	17.28	J-1198
751	J-430	Forest	TRUE	1.00	2,494.58	1.08	2,494.66	20.00	34.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6986	J-3795	Forest	TRUE	1.00	2,495.03	1.48	2,495.51	20.00	30.14	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1208	J-633	Forest	TRUE	1.00	2,497.57	1.28	2,497.85	20.00	34.47	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6908	J-3751	Forest	TRUE	1.00	2,498.39	1.88	2,499.27	20.00	31.75	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1005	J-549	Forest	TRUE	1.00	2,499.32	1.68	2,500.00	20.00	41.15	20.00	20.00	J-3090	(N/A)	16.73	J-1198
4690	J-2466	Forest	TRUE	1.00	2,499.32	1.28	2,499.60	20.00	40.10	20.00	20.00	J-3090	(N/A)	16.73	J-1198
5676	J-3030	Forest	TRUE	1.00	2,499.65	1.08	2,499.73	20.00	27.35	20.00	20.00	J-941	(N/A)	17.28	J-1198
84	J-37	Forest	TRUE	1.00	2,499.66	1.08	2,499.73	20.00	29.05	20.00	20.00	J-941	(N/A)	17.28	J-1198
397	J-217	Forest	TRUE	1.00	2,501.52	1.28	2,501.80	20.00	46.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
398	J-218	Forest	TRUE	1.00	2,501.52	1.48	2,502.00	20.00	45.73	20.00	20.00	J-2919	(N/A)	17.28	J-1198
966	J-531	Forest	TRUE	1.00	2,501.83	1.28	2,502.11	20.00	42.08	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6769	J-3668	Forest	TRUE	1.00	2,501.93	1.48	2,502.41	20.00	39.76	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7269	J-3944	Forest	TRUE	1.00	2,502.95	1.88	2,503.83	20.00	48.97	20.00	20.00	J-1197	(N/A)	12.92	J-1198
5399	J-2872	Forest	TRUE	1.00	2,503.00	1.08	2,503.07	20.00	65.46	20.00	20.01	J-2919	(N/A)	17.28	J-1198
440	J-245	Forest	TRUE	1.00	2,503.00	1.48	2,503.48	20.00	46.67	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1317	J-680	Forest	TRUE	1.00	2,503.00	1.08	2,503.08	20.00	66.50	20.00	20.01	J-2919	(N/A)	17.28	J-1198
439	J-244	Forest	TRUE	1.00	2,503.00	1.08	2,503.08	20.00	46.62	20.00	20.00	J-2919	(N/A)	17.28	J-1198
258	J-128	Forest	TRUE	1.00	2,503.19	1.08	2,503.27	20.00	46.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7204	J-3912	Forest	TRUE	1.00	2,503.70	1.48	2,504.18	20.00	33.59	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1349	J-687	Forest	TRUE	1.00	2,503.71	1.08	2,503.79	20.00	34.15	20.00	20.00	J-2919	(N/A)	17.28	J-1198
299	J-154	Forest	TRUE	1.00	2,503.72	1.08	2,503.79	20.00	46.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
259	J-129	Forest	TRUE	1.00	2,503.72	1.08	2,503.80	20.00	46.81	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1071	J-578	Forest	TRUE	1.00	2,503.73	1.28	2,504.01	20.00	54.27	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5416	J-2881	Forest	TRUE	1.00	2,503.74	1.08	2,503.81	20.00	51.18	20.00	20.00	J-2919	(N/A)	17.28	J-1198
656	J-378	Forest	TRUE	1.00	2,504.10	1.08	2,504.18	20.00	49.03	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7283	J-3949	Forest	TRUE	1.00	2,505.78	1.08	2,505.86	20.00	39.53	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7649	J-4078	Forest	TRUE	1.00	2,505.79	1.08	2,505.86	20.00	47.55	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6580	J-3557	Forest	TRUE	1.00	2,505.79	1.08	2,505.87	20.00	36.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7284	J-3950	Forest	TRUE	1.00	2,505.81	1.08	2,505.88	20.00	38.71	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6579	J-3556	Forest	TRUE	1.00	2,505.81	1.08	2,505.89	20.00	39.38	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5826	J-3116	Forest	TRUE	1.00	2,516.83	1.08	2,516.90	20.00	48.39	20.00	20.00	J-941	(N/A)	17.28	J-1198
36	J-6	Forest	TRUE	1.00	2,516.83	2.08	2,517.91	20.00	29.82	20.00	20.00	J-941	(N/A)	17.28	J-1198
156	J-76	Forest	TRUE	1.00	2,516.84	1.08	2,516.92	20.00	48.84	20.00	20.00	J-941	(N/A)	17.28	J-1198
35	J-5	Forest	TRUE	1.											

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
7023	J-3817	Forest	TRUE	1.00	2,545.20	1.08	2,545.28	20.00	49.81	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6823	J-3700	Forest	TRUE	1.00	2,546.34	1.28	2,546.62	20.00	35.06	20.00	20.00	J-1217	(N/A)	17.28	J-1198
1076	J-579	Forest	TRUE	1.00	2,546.34	1.08	2,546.42	20.00	37.18	20.00	20.00	J-1217	(N/A)	17.28	J-1198
7162	J-3894	Lakes	TRUE	1.00	2,547.98	2.67	2,549.65	20.00	31.81	20.00	20.00	J-3987	(N/A)	17.28	J-1198
4852	J-2556	Lakes	TRUE	1.00	2,547.98	2.24	2,549.22	20.00	25.26	20.00	20.00	J-3987	(N/A)	17.28	J-1198
4853	J-2557	Lakes	TRUE	1.00	2,547.98	1.63	2,548.61	20.00	24.22	20.00	20.00	J-3987	(N/A)	17.28	J-1198
7875	J-4136	Lakes	TRUE	1.00	2,547.98	1.46	2,548.44	20.00	22.43	20.00	20.00	J-3987	(N/A)	17.28	J-1198
6937	J-3768	Forest	TRUE	1.00	2,549.56	1.48	2,550.03	20.00	90.55	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1281	J-665	Forest	TRUE	1.00	2,549.56	1.48	2,550.04	20.00	93.67	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4885	J-2575	Forest	TRUE	1.00	2,549.99	3.89	2,552.88	20.00	34.50	20.00	20.00	J-2280	(N/A)	17.28	J-1198
4886	J-2576	Forest	TRUE	1.00	2,550.00	1.88	2,550.88	20.00	33.58	20.00	20.00	J-2280	(N/A)	17.28	J-1198
1280	J-664	Forest	TRUE	1.00	2,573.11	1.48	2,573.58	20.00	75.62	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5511	J-2934	Forest	TRUE	1.00	2,573.11	1.08	2,573.18	20.00	74.06	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7595	J-4059	Forest	TRUE	1.00	2,573.20	1.88	2,574.08	20.00	46.51	20.00	20.00	J-2919	(N/A)	17.28	J-1198
147	J-72	Forest	TRUE	1.00	2,573.23	1.48	2,573.71	20.00	44.36	20.00	20.02	J-3176	(N/A)	17.28	J-1198
6038	J-3234	Forest	TRUE	1.00	2,573.23	1.48	2,573.71	20.00	41.52	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6039	J-3235	Forest	TRUE	1.00	2,573.24	1.68	2,573.91	20.00	43.04	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5481	J-2918	Forest	TRUE	1.00	2,573.28	2.28	2,574.56	20.00	43.00	20.00	20.01	J-3176	(N/A)	17.28	J-1198
5094	J-2696	Forest	TRUE	1.00	2,575.72	1.08	2,575.80	20.00	80.32	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5095	J-2697	Forest	TRUE	1.00	2,575.72	1.08	2,575.80	20.00	78.79	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1004	J-548	Forest	TRUE	1.00	2,576.14	1.48	2,576.62	20.00	29.04	20.00	20.00	J-3090	(N/A)	16.70	J-1198
4862	J-2562	Forest	TRUE	1.00	2,576.14	1.48	2,576.62	20.00	27.82	20.00	20.00	J-3090	(N/A)	16.70	J-1198
1450	J-727	Forest	TRUE	1.00	2,576.58	1.08	2,576.66	20.00	89.18	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6173	J-3316	Forest	TRUE	1.00	2,576.58	1.28	2,576.86	20.00	87.47	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1449	J-726	Forest	TRUE	1.00	2,580.79	1.28	2,581.06	20.00	88.83	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5250	J-2785	Forest	TRUE	1.00	2,591.01	1.48	2,591.49	20.00	20.00	20.00	21.21	J-2222	(N/A)	17.28	J-1198
4095	J-2206	Forest	TRUE	1.00	2,595.28	2.28	2,596.56	20.00	20.00	20.00	20.22	J-3350	(N/A)	17.28	J-1198
359	J-193	Forest	TRUE	1.00	2,597.24	1.08	2,597.32	20.00	58.38	20.00	20.01	J-2919	(N/A)	17.28	J-1198
529	J-300	Forest	TRUE	1.00	2,597.24	1.08	2,597.32	20.00	57.88	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5705	J-3047	Forest	TRUE	1.00	2,597.55	1.08	2,597.63	20.00	56.75	20.00	20.01	J-2919	(N/A)	17.28	J-1198
358	J-192	Forest	TRUE	1.00	2,597.55	1.08	2,597.63	20.00	58.44	20.00	20.01	J-2919	(N/A)	17.28	J-1198
857	J-483	Stewartsville	TRUE	1.00	2,608.74	1.11	2,608.85	20.00	81.31	20.00	20.00	J-676	(N/A)	17.28	J-1198
5729	J-3061	Stewartsville	TRUE	1.00	2,608.74	1.11	2,608.85	20.00	79.18	20.00	20.00	J-676	(N/A)	17.28	J-1198
1028	J-559	Forest	TRUE	1.00	2,610.23	1.88	2,611.11	20.00	57.79	20.00	20.00	J-2145	(N/A)	17.28	J-1198
5254	J-2787	Forest	TRUE	1.00	2,610.23	1.08	2,610.31	20.00	57.07	20.00	20.00	J-2145	(N/A)	17.28	J-1198
145	J-71	Forest	TRUE	1.00	2,611.83	2.48	2,613.31	20.00	45.06	20.00	20.00	J-2145	(N/A)	17.28	J-1198
70	J-28	Forest	TRUE	1.00	2,612.12	1.08	2,612.20	20.00	50.49	20.00	20.00	J-3176	(N/A)	17.28	J-1198
1100	J-590	Forest	TRUE	1.00	2,612.24	2.08	2,613.32	20.00	50.40	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6757	J-3661	Forest	TRUE	1.00	2,612.24	1.68	2,612.92	20.00	47.77	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1520	J-757	Forest	TRUE	1.00	2,613.03	1.08	2,613.10	20.00	96.75	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5765	J-3082	Forest	TRUE	1.00	2,613.03	1.08	2,613.10	20.00	93.47	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4454	J-2331	Forest	TRUE	1.00	2,614.84	1.48	2,615.32	20.00	20.00	20.00	20.13	J-2919	(N/A)	17.28	J-1198
4133	J-2222	Forest	TRUE	1.00	2,615.05	3.69	2,617.74	20.00	20.01	20.00	20.01	J-2785	(N/A)	17.28	J-1198
7090	J-3854	Forest	TRUE	1.00	2,616.04	1.08	2,616.12	20.00	38.23	20.00	20.01	J-3176	(N/A)	17.28	J-1198
69	J-27	Forest	TRUE	1.00	2,616.22	1.08	2,616.29	20.00	51.50	20.00	20.00	J-3176	(N/A)	17.28	J-1198
4453	J-2330	Forest	TRUE	1.00	2,618.17	1.48	2,618.65	20.00	20.00	20.00	20.02	J-2331	(N/A)	17.28	J-1198
7113	J-3867	Forest	TRUE	1.00	2,619.47	1.28	2,619.75	20.00	20.00	20.00	20.08	J-2330	(N/A)	17.28	J-1198
98	J-46	Lakes	TRUE	1.00	2,624.77	1.20	2,624.97	20.00	20.01	20.00	20.13	J-782	(N/A)	17.28	J-1198
945	J-521	Forest	TRUE	1.00	2,628.83	1.48	2,629.30	20.00	44.30	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5944	J-3182	Forest	TRUE	1.00	2,628.83	1.48	2,629.31	20.00	43.96	20.00	20.01	J-2919	(N/A)	17.28	J-1198
5945	J-3183	Forest	TRUE	1.00	2,628.90	1.48	2,629.38	20.00	42.25	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7706	J-4093	Forest	TRUE	1.00	2,629.41	2.08	2,630.49	20.00	21.88	20.00	20.00	J-2919	(N/A)	17.28	J-1198
4955	J-2616	Forest	TRUE	1.00	2,631.90	1.88	2,632.78	20.00	20.03	20.00	20.89	J-2012	(N/A)	17.28	J-1198
190	J-91	Forest	TRUE	1.00	2,636.98	1.08	2,637.06	20.00	60.03	20.00	20.01	J-2038	(N/A)	17.28	J-1198
5820	J-3113	Forest	TRUE	1.00	2,636.98	1.88	2,637.86	20.00	59.32	20.00	20.01	J-2038	(N/A)	17.28	J-1198
5518	J-2938	Forest	TRUE	1.00	2,638.99	1.48	2,639.46	20.00	49.24	20.00	20.01	J-2919	(N/A)	17.28	J-1198
946	J-522	Forest	TRUE	1.00	2,638.99	2.08	2,640.07	20.00	50.21	20.00	20.01	J-2919	(N/A)	17.28	J-1198
936	J-517	Forest	TRUE	1.00	2,640.62	1.28	2,640.90	20.00	42.15	20.00	20.01	J-3855	(N/A)	17.28	J-1198
4864	J-2563	Forest	TRUE	1.00	2,640.67	1.48	2,641.15	20.00	41.04	20.00	20.01	J-3855	(N/A)	17.28	J-1198
3689	J-2012	Forest	TRUE	1.00	2,641.79	2.08	2,642.87	20.00	20.03	20.00	20.23	J-2616	(N/A)	17.28	J-1198
5657	J-3019	Forest	TRUE	1.00	2,642.50	2.28	2,643.78	20.00	38.40	20.00	20.00	J-2212	(N/A)	17.28	J-1198
5658	J-3020	Forest	TRUE	1.00	2,642.52	1.68	2,643.20	20.00	36.97	20.00	20.00	J-2212	(N/A)	17.28	J-1198
7268	J-3943	Forest	TRUE	1.00	2,645.26	1.28	2,645.54	20.00	48.52	20.00	20.00	J-1197	(N/A)	12.92	J-1198
4939	J-2607	Lakes	TRUE	1.00	2,652.43	1.20	2,652.63	20.00	20.01	20.00	20.11	J-46	(N/A)	17.28	J-1198
7241	J-3930	Forest	TRUE	1.00	2,653.04	1.88	2,653.93	20.00	20.00	20.00	20.53	J-576	(N/A)	16.67	J-1198
97	J-45	Lakes	TRUE	1.00	2,653.89	1.37	2,654.26	20.00	21.03	20.00	20.00	J-46	(N/A)	17.28	J-1198
6495	J-3506	Forest	TRUE	1.00	2,658.81	1.08	2,658.88	20.00	56.46	20.00	20.00	J-3176	(N/A)	17.28	J-1198
150	J-73	Forest	TRUE	1.00	2,658.81	1.08	2,658.89	20.00	57.55	20.00	20.00	J-3176	(N/A)	17.28	J-1198
6142	J-3298	Forest	TRUE	1.00	2,660.63	1.28	2,660.90	20.00	90.64	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1513	J-755	Forest	TRUE	1.00	2,660.63	1.08	2,660.71	20.00	92.43	20.00	20.00	J-2919	(N/A)	17.28	J-1198
126	J-61	Forest	TRUE	1.00	2,663.88	1.48	2,664.36	20.00	35.20	20.00	20.00	J-2145	(N/A)	17.28	J-1198
6288	J-3385	Forest	TRUE	1.00	2,663.88	1.08	2,663.96	20.00	33.36	20.00	20.00	J-2145	(N/A)	17.28	J-1198
1066	J-576	Forest	TRUE	1.00	2,667.66	1.08	2,667.73	20.00	20.00	20.00	20.00	J-3930	(N/A)	16.66	J-1198
409	J-225	Forest	TRUE	1.00	2,669.55	1.28	2,669.83	20.00	42.24	20.00	20.01	J-2919	(N/A)	17.28	J-1198
410	J-226	Forest	TRUE	1.00	2,670.14	1.08	2,670.22	20.00	41.85	20.00	20.01	J-2919	(N/A)	17.28	J-1198
4451	J-2329	Forest	TRUE	1.00	2,670.15	1.48	2,670.62	20.00	41.65	20.00	20.01	J-2919	(N/A)	17.28	J-1198
6171	J-3315	Forest	TRUE	1.00	2,685.64	1.08	2,685.72	20.00	79.39	20.00	20.01	J-2919	(N/A)	17.28	J-1198
1512	J-754	Forest	TRUE	1.00	2,685.65	1.48	2,686.13	20.00	81.01	20.00	20.01	J-2919	(N/A)	17.28	J-1198

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5885	J-3149	Forest	TRUE	1.00	2,737.04	1.08	2,737.11	20.00	54.65	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3609	J-1968	Lakes	TRUE	1.00	2,739.88	1.20	2,740.08	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5012	J-2649	Forest	TRUE	1.00	2,745.58	1.08	2,745.66	20.00	20.00	20.00	21.26	J-194	(N/A)	17.28	J-1198
1526	J-760	Forest	TRUE	1.00	2,747.66	1.08	2,747.73	20.00	44.87	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6814	J-3695	Forest	TRUE	1.00	2,747.66	1.28	2,747.94	20.00	41.68	20.00	20.00	J-2919	(N/A)	17.28	J-1198
166	J-82	Forest	TRUE	1.00	2,752.08	2.08	2,753.17	20.00	40.59	20.00	20.01	J-3855	(N/A)	17.28	J-1198
5297	J-2811	Forest	TRUE	1.00	2,752.95	1.48	2,753.43	20.00	20.00	20.00	21.19	J-55	(N/A)	17.28	J-1198
6439	J-3474	Lakes	TRUE	1.00	2,755.39	1.20	2,755.59	20.00	24.26	20.00	20.00	J-3016	(N/A)	17.28	J-1198
6440	J-3475	Lakes	TRUE	1.00	2,755.39	1.20	2,755.59	20.00	21.71	20.00	20.00	J-3016	(N/A)	17.28	J-1198
4518	J-2368	Forest	TRUE	1.00	2,755.85	1.48	2,756.33	20.00	20.00	20.00	20.64	J-2011	(N/A)	17.28	J-1198
2112	J-1117	Forest	TRUE	1.00	2,756.12	1.48	2,756.60	20.00	21.72	20.00	20.00	J-1116	(N/A)	17.28	J-1198
6210	J-3338	Forest	TRUE	1.00	2,757.29	1.28	2,757.57	20.00	41.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1522	J-758	Forest	TRUE	1.00	2,757.30	1.28	2,757.58	20.00	43.30	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1509	J-752	Forest	TRUE	1.00	2,759.68	1.48	2,760.16	20.00	57.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6386	J-3443	Forest	TRUE	1.00	2,759.68	1.08	2,759.76	20.00	55.16	20.00	20.00	J-2919	(N/A)	17.28	J-1198
483	J-271	Forest	TRUE	1.00	2,760.05	1.88	2,760.93	20.00	40.93	20.00	20.01	J-3855	(N/A)	17.28	J-1198
4591	J-2411	Forest	TRUE	1.00	2,760.09	1.08	2,760.17	20.00	40.10	20.00	20.01	J-3855	(N/A)	17.28	J-1198
113	J-54	Forest	TRUE	1.00	2,760.77	1.08	2,760.84	20.00	20.00	20.00	21.71	J-55	(N/A)	17.28	J-1198
3688	J-2011	Forest	TRUE	1.00	2,763.44	1.88	2,764.32	20.00	20.00	20.00	20.13	J-2368	(N/A)	17.28	J-1198
5891	J-3152	Forest	TRUE	1.00	2,766.85	1.08	2,766.92	20.00	40.00	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1523	J-759	Forest	TRUE	1.00	2,766.85	1.08	2,766.93	20.00	42.19	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1051	J-570	Forest	TRUE	1.00	2,776.57	1.08	2,776.65	20.00	28.42	20.00	20.00	J-3930	(N/A)	16.62	J-1198
4812	J-2533	Forest	TRUE	1.00	2,776.57	1.68	2,777.25	20.00	27.63	20.00	20.00	J-3930	(N/A)	16.62	J-1198
1505	J-750	Forest	TRUE	1.00	2,777.77	1.08	2,777.85	20.00	45.39	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6095	J-3270	Forest	TRUE	1.00	2,777.77	1.08	2,777.85	20.00	43.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
686	J-395	Forest	TRUE	1.00	2,782.76	1.08	2,782.83	20.00	43.33	20.00	20.00	J-2145	(N/A)	17.28	J-1198
5672	J-3028	Forest	TRUE	1.00	2,783.03	1.88	2,783.91	20.00	29.24	20.00	20.00	J-2145	(N/A)	17.28	J-1198
114	J-55	Forest	TRUE	1.00	2,783.07	2.68	2,784.75	20.00	20.00	20.00	20.16	J-2811	(N/A)	17.28	J-1198
5671	J-3027	Forest	TRUE	1.00	2,783.08	1.88	2,783.96	20.00	27.58	20.00	20.00	J-2145	(N/A)	17.28	J-1198
6637	J-3591	Forest	TRUE	1.00	2,784.17	1.08	2,784.25	20.00	46.89	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1506	J-751	Forest	TRUE	1.00	2,784.17	1.08	2,784.25	20.00	49.77	20.00	20.00	J-2919	(N/A)	17.28	J-1198
6310	J-3398	Forest	TRUE	1.00	2,796.13	1.08	2,796.21	20.00	58.82	20.00	20.00	J-2919	(N/A)	17.28	J-1198
1455	J-729	Forest	TRUE	1.00	2,796.13	1.08	2,796.21	20.00	59.56	20.00	20.00	J-2919	(N/A)	17.28	J-1198
677	J-391	Forest	TRUE	1.00	2,800.58	1.08	2,800.66	20.00	59.01	20.00	20.00	J-2919	(N/A)	17.28	J-1198
152	J-74	Forest	TRUE	1.00	2,807.68	1.48	2,808.15	20.00	24.09	20.00	20.00	J-54	(N/A)	17.28	J-1198
5748	J-3072	Forest	TRUE	1.00	2,807.68	1.08	2,807.76	20.00	22.06	20.00	20.00	J-54	(N/A)	17.28	J-1198
4441	J-2325	Forest	TRUE	1.00	2,807.86	3.29	2,810.15	20.00	20.00	20.00	22.86	J-2919	(N/A)	17.28	J-1198
2502	J-1342	Forest	TRUE	1.00	2,815.46	1.08	2,815.54	20.00	22.30	20.00	20.00	J-1806	(N/A)	16.60	J-1198
993	J-544	Stewartsville	TRUE	1.00	2,815.48	1.11	2,815.59	20.00	68.63	20.00	20.00	J-676	(N/A)	17.28	J-1198
6509	J-3514	Stewartsville	TRUE	1.00	2,815.48	1.11	2,815.59	20.00	65.52	20.00	20.00	J-676	(N/A)	17.28	J-1198
1287	J-668	Forest	TRUE	1.00	2,815.61	1.68	2,816.29	20.00	20.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6132	J-3292	Lakes	TRUE	1.00	2,819.38	1.20	2,819.58	20.00	53.86	20.00	20.02	J-2323	(N/A)	17.28	J-1198
1096	J-588	Lakes	TRUE	1.00	2,819.70	1.20	2,819.90	20.00	55.64	20.00	20.00	J-2323	(N/A)	17.28	J-1198
178	J-87	Lakes	TRUE	1.00	2,820.72	1.20	2,820.92	20.00	48.76	20.00	20.00	J-46	(N/A)	17.28	J-1198
4652	J-2445	Lakes	TRUE	1.00	2,820.72	1.20	2,820.92	20.00	47.81	20.00	20.00	J-46	(N/A)	17.28	J-1198
165	J-81	Forest	TRUE	1.00	2,823.22	2.28	2,824.50	20.00	40.07	20.00	20.01	J-3855	(N/A)	17.28	J-1198
361	J-194	Forest	TRUE	1.00	2,826.52	1.08	2,826.60	20.00	20.11	20.00	20.00	J-2649	(N/A)	17.28	J-1198
332	J-175	Forest	TRUE	1.00	2,827.71	1.08	2,827.79	20.00	20.13	20.00	20.00	J-2649	(N/A)	17.28	J-1198
333	J-176	Forest	TRUE	1.00	2,827.71	1.08	2,827.79	20.00	20.17	20.00	20.00	J-2649	(N/A)	17.28	J-1198
4704	J-2473	Forest	TRUE	1.00	2,833.19	1.08	2,833.27	20.00	40.78	20.00	20.01	J-3855	(N/A)	17.28	J-1198
589	J-337	Forest	TRUE	1.00	2,833.19	1.48	2,833.67	20.00	41.89	20.00	20.01	J-3855	(N/A)	17.28	J-1198
5585	J-2976	Forest	TRUE	1.00	2,834.72	1.48	2,835.20	20.00	20.00	20.00	21.65	J-2977	(N/A)	16.60	J-1198
588	J-336	Forest	TRUE	1.00	2,849.92	1.68	2,850.60	20.00	41.59	20.00	20.01	J-3855	(N/A)	17.28	J-1198
687	J-396	Forest	TRUE	1.00	2,850.65	1.08	2,850.73	20.00	38.85	20.00	20.00	J-2145	(N/A)	17.28	J-1198
154	J-75	Forest	TRUE	1.00	2,855.23	2.48	2,856.71	20.00	26.48	20.00	20.00	J-54	(N/A)	17.28	J-1198
848	J-478	Forest	TRUE	1.00	2,856.96	1.08	2,857.03	20.00	25.44	20.00	20.00	J-2649	(N/A)	17.28	J-1198
4857	J-2559	Forest	TRUE	1.00	2,857.00	1.08	2,857.08	20.00	24.26	20.00	20.00	J-2649	(N/A)	17.28	J-1198
5110	J-2705	Forest	TRUE	1.00	2,863.94	1.08	2,864.02	20.00	58.51	20.00	20.00	J-2919	(N/A)	17.28	J-1198
599	J-343	Forest	TRUE	1.00	2,863.95	1.08	2,864.02	20.00	60.54	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7098	J-3858	Forest	TRUE	1.00	2,864.18	1.48	2,864.65	20.00	23.23	20.00	20.00	J-2919	(N/A)	17.28	J-1198
5532	J-2947	Forest	TRUE	1.00	2,864.40	1.08	2,864.48	20.00	20.00	20.00	20.97	J-3930	(N/A)	16.58	J-1198
168	J-83	Forest	TRUE	1.00	2,864.43	1.08	2,864.50	20.00	80.99	20.00	20.00	J-3176	(N/A)	17.28	J-1198
6652	J-3600	Forest	TRUE	1.00	2,864.43	1.08	2,864.50	20.00	78.41	20.00	20.00	J-3176	(N/A)	17.28	J-1198
5305	J-2816	Forest	TRUE	1.00	2,878.13	2.28	2,879.41	20.00	24.13	20.00	20.00	J-54	(N/A)	17.28	J-1198
5304	J-2815	Forest	TRUE	1.00	2,878.13	1.88	2,879.01	20.00	23.14	20.00	20.00	J-54	(N/A)	17.28	J-1198
7526	J-4038	Forest	TRUE	1.00	2,880.08	11.28	2,890.35	20.00	20.00	20.00	22.18	J-35	(N/A)	16.58	J-1198
7602	J-4062	Lakes	TRUE	1.00	2,884.29	1.37	2,884.66	20.00	20.00	20.00	26.02	J-1102	(N/A)	17.28	J-1198
3628	J-1978	Forest	TRUE	1.00	2,890.87	1.28	2,891.15	20.00	36.83	20.00	20.00	J-3	(N/A)	16.57	J-1198
895	J-502	Forest	TRUE	1.00	2,893.16	1.08	2,893.24	20.00	20.80	20.00	20.01	J-3930	(N/A)	16.57	J-1198
5586	J-2977	Forest	TRUE	1.00	2,897.31	1.48	2,897.78	20.00	20.02	20.00	20.00	J-2976	(N/A)	16.57	J-1198
971	J-533	Forest	TRUE	1.00	2,897.86	1.08	2,897.94	20.00	27.45	20.00	20.00	J-2649	(N/A)	17.28	J-1198
4900	J-2584	Forest	TRUE	1.00	2,897.92	1.28	2,898.19	20.00	26.05	20.00	20.00	J-2649	(N/A)	17.28	J-1198
788	J-449	Forest	TRUE	1.00	2,901.17	1.88	2,902.05	20.00	36.40	20.00	20.01	J-3855	(N/A)	17.28	J-1198
4605	J-2419	Forest	TRUE	1.00	2,901.20	1.08	2,901.28	20.00	35.45	20.00	20.01	J-3855	(N/A)	17.28	J-1198
171	J-85	Forest	TRUE	1.00	2,901.53	1.08	2,901.61	20.00	36.22	20.00	20.00	J-3855	(N/A)	17.28	J-1198
6408	J-3456	Forest	TRUE	1.00	2,901.59	1.48	2,902.07	20.00	33.61	20.00	20.00	J-3855	(N/A)	17.28	J-1198
3226	J-1750	Forest	TRUE	1.00	2,910.73	1.08	2,910.81	20.00	49.44	20.00	20.01	J-2919	(N/A)	17.28	J-1198
3227	J-1751	Forest	TRUE	1.00	2,910.73	1.28	2,911.01	20.00	46.22	20.00	20.01	J-2919	(N/A)	17.28	J-1198
7337	J-3968	Forest													

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
5679	J-3032	Forest	TRUE	1.00	2,939.32	1.88	2,940.20	20.00	54.61	20.00	20.00	J-4119	(N/A)	16.55	J-1198
335	J-177	Forest	TRUE	1.00	2,947.77	1.08	2,947.84	20.00	20.16	20.00	20.02	J-36	(N/A)	16.55	J-1198
82	J-36	Forest	TRUE	1.00	2,948.41	1.08	2,948.48	20.00	20.00	20.00	20.23	J-177	(N/A)	16.55	J-1198
894	J-501	Forest	TRUE	1.00	2,948.41	1.48	2,948.89	20.00	22.53	20.00	20.00	J-36	(N/A)	16.55	J-1198
62	J-23	Forest	TRUE	1.00	2,951.00	1.08	2,951.08	20.00	26.31	20.00	20.00	J-54	(N/A)	17.28	J-1198
8509	J-4207	Forest	TRUE	1.00	2,951.01	1.68	2,951.69	20.00	23.09	20.00	20.00	J-54	(N/A)	17.28	J-1198
6188	J-3324	Forest	TRUE	1.00	2,952.10	1.88	2,952.98	20.00	25.04	20.00	20.00	J-1044	(N/A)	16.55	J-1198
6189	J-3325	Forest	TRUE	1.00	2,952.10	2.28	2,953.38	20.00	22.30	20.00	20.00	J-1044	(N/A)	16.55	J-1198
61	J-22	Forest	TRUE	1.00	2,952.51	1.08	2,952.59	20.00	26.02	20.00	20.00	J-54	(N/A)	17.28	J-1198
6455	J-3483	Forest	TRUE	1.00	2,952.52	1.48	2,953.00	20.00	20.49	20.00	20.00	J-54	(N/A)	17.28	J-1198
450	J-251	Forest	TRUE	1.00	2,957.23	1.08	2,957.31	20.00	32.27	20.00	20.00	J-2145	(N/A)	17.28	J-1198
81	J-35	Forest	TRUE	1.00	2,961.11	1.08	2,961.18	20.00	20.00	20.00	20.79	J-36	(N/A)	16.54	J-1198
170	J-84	Forest	TRUE	1.00	2,966.86	1.08	2,966.94	20.00	30.55	20.00	20.00	J-3855	(N/A)	17.28	J-1198
5001	J-2643	Forest	TRUE	1.00	2,966.86	2.68	2,968.54	20.00	29.27	20.00	20.00	J-3855	(N/A)	17.28	J-1198
140	J-69	Forest	TRUE	1.00	2,966.94	2.28	2,968.22	20.00	52.92	20.00	20.00	J-3176	(N/A)	17.28	J-1198
4660	J-2449	Forest	TRUE	1.00	2,966.94	1.48	2,967.41	20.00	51.66	20.00	20.00	J-3176	(N/A)	17.28	J-1198
54	J-18	Forest	TRUE	1.00	2,971.11	1.08	2,971.19	20.00	29.77	20.00	20.00	J-54	(N/A)	17.28	J-1198
6543	J-3534	Forest	TRUE	1.00	2,971.13	1.68	2,971.80	20.00	27.51	20.00	20.00	J-54	(N/A)	17.28	J-1198
5797	J-3100	Forest	TRUE	1.00	2,972.03	1.08	2,972.11	20.00	36.21	20.00	20.00	J-1519	(N/A)	17.28	J-1198
5796	J-3099	Forest	TRUE	1.00	2,972.03	1.48	2,972.51	20.00	34.14	20.00	20.00	J-1519	(N/A)	17.28	J-1198
53	J-17	Forest	TRUE	1.00	2,972.21	2.08	2,973.29	20.00	29.80	20.00	20.00	J-54	(N/A)	17.28	J-1198
1035	J-562	Forest	TRUE	1.00	2,976.31	1.08	2,976.39	20.00	33.72	20.00	20.00	J-2649	(N/A)	17.28	J-1198
4950	J-2613	Forest	TRUE	1.00	2,976.31	2.08	2,977.39	20.00	32.24	20.00	20.00	J-2649	(N/A)	17.28	J-1198
1610	J-803	Forest	TRUE	1.00	2,986.97	2.08	2,988.05	20.00	23.97	20.00	20.02	J-3904	(N/A)	16.53	J-1198
1192	J-624	Forest	TRUE	1.00	2,987.65	1.08	2,987.73	20.00	46.14	20.00	20.00	J-3904	(N/A)	16.53	J-1198
874	J-491	Forest	TRUE	1.00	2,987.66	1.48	2,988.13	20.00	50.39	20.00	20.00	J-3904	(N/A)	16.53	J-1198
1591	J-791	Forest	TRUE	1.00	2,987.66	1.08	2,987.73	20.00	43.24	20.00	20.00	J-3904	(N/A)	16.53	J-1198
796	J-452	Forest	TRUE	1.00	2,987.70	1.48	2,988.18	20.00	31.00	20.00	20.00	J-3855	(N/A)	17.28	J-1198
4740	J-2494	Forest	TRUE	1.00	2,987.73	1.48	2,988.21	20.00	29.85	20.00	20.00	J-3855	(N/A)	17.28	J-1198
4323	J-2287	Forest	TRUE	1.00	2,992.80	1.88	2,993.68	20.00	35.28	20.00	20.00	J-1519	(N/A)	17.28	J-1198
569	J-325	Forest	TRUE	1.00	3,001.76	1.68	3,002.44	20.00	23.12	20.00	20.00	J-3240	(N/A)	17.28	J-1198
4560	J-2392	Lakes	TRUE	1.00	3,005.69	1.20	3,005.89	20.00	20.00	20.00	20.28	J-4062	(N/A)	17.28	J-1198
2089	J-1102	Lakes	TRUE	1.00	3,006.11	1.46	3,006.57	20.00	20.64	20.00	20.01	J-4062	(N/A)	17.28	J-1198
570	J-326	Forest	TRUE	1.00	3,007.67	1.68	3,008.34	20.00	24.73	20.00	20.00	J-3240	(N/A)	17.28	J-1198
4804	J-2529	Forest	TRUE	1.00	3,007.68	1.08	3,007.75	20.00	23.78	20.00	20.00	J-3240	(N/A)	17.28	J-1198
59	J-21	Lakes	TRUE	1.00	3,009.26	1.37	3,009.63	20.00	53.64	20.00	20.00	J-46	(N/A)	17.28	J-1198
4561	J-2393	Lakes	TRUE	1.00	3,011.85	1.20	3,012.04	20.00	20.67	20.00	20.00	J-4062	(N/A)	17.28	J-1198
3611	J-1969	Forest	TRUE	1.00	3,013.97	1.08	3,014.04	20.00	63.57	20.00	20.00	J-2045	(N/A)	14.36	J-1198
58	J-20	Lakes	TRUE	1.00	3,016.22	1.20	3,016.42	20.00	53.58	20.00	20.00	J-46	(N/A)	17.28	J-1198
4658	J-2448	Lakes	TRUE	1.00	3,016.22	1.20	3,016.42	20.00	52.43	20.00	20.00	J-46	(N/A)	17.28	J-1198
4284	J-2276	Forest	TRUE	1.00	3,018.21	1.08	3,018.29	20.00	24.54	20.00	20.00	J-1044	(N/A)	16.52	J-1198
452	J-252	Forest	TRUE	1.00	3,018.72	1.48	3,019.20	20.00	35.61	20.00	20.00	J-2649	(N/A)	17.28	J-1198
5072	J-2685	Forest	TRUE	1.00	3,018.72	1.08	3,018.79	20.00	33.96	20.00	20.00	J-2649	(N/A)	17.28	J-1198
453	J-253	Forest	TRUE	1.00	3,021.58	1.28	3,021.85	20.00	34.59	20.00	20.00	J-2649	(N/A)	17.28	J-1198
3152	J-1706	Forest	TRUE	1.00	3,021.58	1.28	3,021.85	20.00	32.20	20.00	20.00	J-2649	(N/A)	17.28	J-1198
111	J-53	Forest	TRUE	1.00	3,032.50	1.08	3,032.58	20.00	20.00	20.00	20.52	J-2976	(N/A)	16.51	J-1198
4568	J-2397	Forest	TRUE	1.00	3,043.86	1.28	3,044.13	20.00	24.62	20.00	20.00	J-2649	(N/A)	17.28	J-1198
844	J-476	Forest	TRUE	1.00	3,043.86	1.48	3,044.33	20.00	25.42	20.00	20.00	J-2649	(N/A)	17.28	J-1198
3376	J-1837	Lakes	TRUE	1.00	3,053.89	1.55	3,054.44	20.00	20.00	20.00	29.49	J-1804	(N/A)	17.28	J-1198
716	J-412	Stewartsville	TRUE	1.00	3,075.41	1.11	3,075.52	20.00	57.92	20.00	20.00	J-676	(N/A)	17.28	J-1198
7155	J-3890	Stewartsville	TRUE	1.00	3,075.41	1.11	3,075.52	20.00	57.67	20.00	20.00	J-676	(N/A)	17.28	J-1198
3093	J-1669	Forest	TRUE	1.00	3,085.04	1.48	3,085.52	20.00	23.89	20.00	20.00	J-1044	(N/A)	16.49	J-1198
3094	J-1670	Forest	TRUE	1.00	3,085.04	1.08	3,085.12	20.00	21.91	20.00	20.00	J-1044	(N/A)	16.49	J-1198
5583	J-2975	Forest	TRUE	1.00	3,093.87	1.28	3,094.14	20.00	53.07	20.00	20.00	J-3904	(N/A)	16.49	J-1198
875	J-492	Forest	TRUE	1.00	3,093.87	1.08	3,093.94	20.00	54.82	20.00	20.00	J-3904	(N/A)	16.49	J-1198
3317	J-1804	Lakes	TRUE	1.00	3,103.77	4.35	3,107.12	20.00	20.00	20.00	26.18	J-1837	(N/A)	17.28	J-1198
5056	J-2676	Forest	TRUE	1.00	3,111.63	1.08	3,111.70	20.00	28.14	20.00	20.00	J-2145	(N/A)	17.28	J-1198
765	J-437	Forest	TRUE	1.00	3,111.63	1.48	3,112.11	20.00	29.69	20.00	20.00	J-2145	(N/A)	17.28	J-1198
6222	J-3345	Lakes	TRUE	1.00	3,117.67	1.20	3,117.87	20.00	29.47	20.00	20.03	J-2323	(N/A)	17.28	J-1198
8463	J-4183	Lakes	TRUE	1.00	3,117.96	1.20	3,118.16	20.00	37.55	20.00	20.02	J-2323	(N/A)	17.28	J-1198
297	J-153	Lakes	TRUE	1.00	3,118.43	1.29	3,118.71	20.00	36.27	20.00	20.00	J-2323	(N/A)	17.28	J-1198
296	J-152	Lakes	TRUE	1.00	3,118.43	1.20	3,118.63	20.00	36.32	20.00	20.00	J-2323	(N/A)	17.28	J-1198
749	J-429	Lakes	TRUE	1.00	3,118.43	1.20	3,118.63	20.00	37.41	20.00	20.00	J-2323	(N/A)	17.28	J-1198
6223	J-3346	Lakes	TRUE	1.00	3,118.43	1.20	3,118.63	20.00	26.55	20.00	20.00	J-2323	(N/A)	17.28	J-1198
7079	J-3848	Lakes	TRUE	1.00	3,141.49	1.29	3,141.77	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
715	J-411	Stewartsville	TRUE	1.00	3,147.23	1.26	3,147.49	20.00	55.41	20.00	20.00	J-676	(N/A)	17.28	J-1198
6462	J-3487	Stewartsville	TRUE	1.00	3,147.23	1.26	3,147.49	20.00	52.26	20.00	20.00	J-676	(N/A)	17.28	J-1198
4483	J-2348	Forest	TRUE	1.00	3,160.49	1.08	3,160.57	20.00	20.50	20.00	20.01	J-2339	(N/A)	16.46	J-1198
38	J-7	Forest	TRUE	1.00	3,160.93	1.48	3,161.41	20.00	21.46	20.00	20.00	J-2339	(N/A)	16.45	J-1198
39	J-8	Forest	TRUE	1.00	3,160.93	1.08	3,161.01	20.00	21.14	20.00	20.00	J-2339	(N/A)	16.45	J-1198
2428	J-1301	Lakes	TRUE	1.00	3,168.85	1.20	3,169.04	20.00	20.00	20.00	21.66	J-1359	(N/A)	17.28	J-1198
8060	J-4162	Lakes	TRUE	1.00	3,176.15	1.20	3,176.35	20.00	20.00	20.00	31.77	J-4062	(N/A)	17.28	J-1198
1069	J-577	Forest	TRUE	1.00	3,185.39	1.08	3,185.46	20.00	72.95	20.00	20.00	J-2919	(N/A)	17.28	J-1198
7096	J-3857	Forest	TRUE	1.00	3,185.39	1.08	3,185.46	20.00	46.52	20.00	20.00	J-2919	(N/A)	17.28	J-1198
3273	J-1780	Lakes	TRUE	1.00	3,189.15	1.55	3,189.70	20.00	20.00	20.00	24.67	J-3759	(N/A)	17.28	J-1198
6921	J-3759	Lakes	TRUE	1.00	3,194.55	1.20	3,194.75	20.00	20.00	20.00	24.33	J-1780	(N/A)	17.28	J-1198
3316	J-1803	Lakes	TRUE	1.00	3,197.40	1.29	3,197.69	20.00	20.42	20.00	20.04	J-1837	(N/A)	17.28	J-1198
6545	J-3535	Lakes	TRUE	1.00	3,199.44	1.29	3,199.72	20.00	20.00	20.00	23.69	J-601	(N/A)	17.28	J-1198
731	J-420	Lakes	TRUE	1.00	3,203.73										

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
690	J-397	Lakes	TRUE	1.00	3,272.02	1.20	3,272.22	20.00	23.18	20.00	20.00	J-1575	(N/A)	17.28	J-1198
4648	J-2443	Lakes	TRUE	1.00	3,272.10	1.72	3,272.82	20.00	20.00	20.00	21.33	J-658	(N/A)	17.28	J-1198
3340	J-1817	Lakes	TRUE	1.00	3,272.52	1.37	3,272.89	20.00	20.30	20.00	20.04	J-1968	(N/A)	17.28	J-1198
185	J-89	Lakes	TRUE	1.00	3,276.11	1.20	3,276.31	20.00	42.08	20.00	20.00	J-46	(N/A)	17.28	J-1198
4810	J-2532	Lakes	TRUE	1.00	3,276.11	1.20	3,276.31	20.00	40.37	20.00	20.00	J-46	(N/A)	17.28	J-1198
1268	J-658	Lakes	TRUE	1.00	3,290.68	1.29	3,290.97	20.00	20.00	20.00	20.00	J-2443	(N/A)	17.28	J-1198
5972	J-3197	Lakes	TRUE	1.00	3,306.12	1.20	3,306.32	20.00	22.88	20.00	20.00	J-1575	(N/A)	17.28	J-1198
691	J-398	Lakes	TRUE	1.00	3,306.13	1.29	3,306.41	20.00	25.15	20.00	20.00	J-1575	(N/A)	17.28	J-1198
5281	J-2802	Lakes	TRUE	1.00	3,309.59	2.41	3,311.00	20.00	27.20	20.00	20.00	J-3987	(N/A)	17.28	J-1198
5282	J-2803	Lakes	TRUE	1.00	3,309.59	1.81	3,310.39	20.00	25.30	20.00	20.00	J-3987	(N/A)	17.28	J-1198
1274	J-661	Lakes	TRUE	1.00	3,314.10	1.20	3,314.30	20.00	20.00	20.00	20.21	J-3528	(N/A)	17.28	J-1198
7636	J-4074	Lakes	TRUE	1.00	3,330.73	1.20	3,330.92	20.00	20.00	20.00	24.61	J-3965	(N/A)	17.28	J-1198
7084	J-3851	Lakes	TRUE	1.00	3,351.10	1.20	3,351.30	20.00	20.00	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6452	J-3481	Lakes	TRUE	1.00	3,358.60	1.20	3,358.80	20.00	20.00	20.00	23.57	J-3482	(N/A)	17.28	J-1198
804	J-456	Lakes	TRUE	1.00	3,360.54	1.20	3,360.74	20.00	30.42	20.00	20.02	J-1575	(N/A)	17.28	J-1198
7536	J-4042	Lakes	TRUE	1.00	3,382.26	1.20	3,382.46	20.00	20.00	20.00	24.39	J-2016	(N/A)	17.28	J-1198
5911	J-3163	Lakes	TRUE	1.00	3,389.10	1.20	3,389.30	20.00	20.00	20.00	23.25	J-637	(N/A)	17.28	J-1198
7327	J-3965	Lakes	TRUE	1.00	3,393.72	1.20	3,393.92	20.00	20.00	20.00	21.50	J-3961	(N/A)	17.28	J-1198
5763	J-3081	Lakes	TRUE	1.00	3,398.98	1.46	3,399.44	20.00	20.00	20.00	22.07	J-3163	(N/A)	17.28	J-1198
1286	J-667	Forest	TRUE	1.00	3,401.44	1.08	3,401.52	20.00	29.28	20.00	20.00	J-668	(N/A)	17.28	J-1198
6742	J-3652	Forest	TRUE	1.00	3,401.44	1.48	3,401.92	20.00	25.08	20.00	20.00	J-668	(N/A)	17.28	J-1198
759	J-434	Forest	TRUE	1.00	3,410.55	1.28	3,410.83	20.00	26.99	20.00	20.00	J-2145	(N/A)	17.28	J-1198
4773	J-2512	Forest	TRUE	1.00	3,410.56	1.08	3,410.63	20.00	25.48	20.00	20.00	J-2145	(N/A)	17.28	J-1198
7080	J-3849	Lakes	TRUE	1.00	3,412.55	1.20	3,412.75	20.00	20.96	20.00	20.00	J-3848	(N/A)	17.28	J-1198
3374	J-1836	Lakes	TRUE	1.00	3,417.77	1.55	3,418.32	20.00	20.83	20.00	20.03	J-1837	(N/A)	17.28	J-1198
7316	J-3961	Lakes	TRUE	1.00	3,419.23	1.20	3,419.43	20.00	20.18	20.00	20.04	J-3965	(N/A)	17.28	J-1198
6453	J-3482	Lakes	TRUE	1.00	3,422.79	1.37	3,423.16	20.00	20.26	20.00	20.04	J-3481	(N/A)	17.28	J-1198
1232	J-645	Lakes	TRUE	1.00	3,434.36	1.20	3,434.56	20.00	20.00	20.00	20.34	J-3163	(N/A)	17.28	J-1198
1231	J-644	Lakes	TRUE	1.00	3,441.19	1.20	3,441.39	20.00	31.42	20.00	20.00	J-3163	(N/A)	17.28	J-1198
5288	J-2806	Lakes	TRUE	1.00	3,441.19	1.20	3,441.39	20.00	29.31	20.00	20.00	J-3163	(N/A)	17.28	J-1198
1216	J-637	Lakes	TRUE	1.00	3,441.19	1.29	3,441.47	20.00	20.70	20.00	20.00	J-3163	(N/A)	17.28	J-1198
1276	J-662	Forest	TRUE	1.00	3,460.72	1.28	3,460.99	20.00	42.93	20.00	20.00	J-3904	(N/A)	16.31	J-1198
5468	J-2911	Forest	TRUE	1.00	3,460.72	1.08	3,460.79	20.00	40.57	20.00	20.00	J-3904	(N/A)	16.31	J-1198
3695	J-2016	Lakes	TRUE	1.00	3,460.81	1.37	3,461.19	20.00	20.00	20.00	20.14	J-4042	(N/A)	17.28	J-1198
6733	J-3647	Lakes	TRUE	1.00	3,478.94	1.20	3,479.14	20.00	25.79	20.00	20.00	J-2323	(N/A)	17.28	J-1198
1194	J-625	Lakes	TRUE	1.00	3,478.94	1.29	3,479.23	20.00	29.95	20.00	20.00	J-2323	(N/A)	17.28	J-1198
3028	J-1628	Lakes	TRUE	1.00	3,486.39	1.20	3,486.59	20.00	20.00	20.00	20.33	J-1629	(N/A)	17.28	J-1198
3694	J-2015	Lakes	TRUE	1.00	3,487.82	1.98	3,488.80	20.00	20.00	20.00	27.09	J-1968	(N/A)	17.28	J-1198
3029	J-1629	Lakes	TRUE	1.00	3,492.87	1.20	3,493.07	20.00	20.00	20.00	20.00	J-1628	(N/A)	17.28	J-1198
7629	J-4071	Lakes	TRUE	1.00	3,493.08	1.20	3,493.28	20.00	27.99	20.00	20.02	J-4062	(N/A)	17.28	J-1198
5986	J-3205	Lakes	TRUE	1.00	3,494.47	1.20	3,494.67	20.00	21.61	20.00	20.00	J-1575	(N/A)	17.28	J-1198
1102	J-591	Lakes	TRUE	1.00	3,494.48	1.20	3,494.67	20.00	25.17	20.00	20.00	J-1575	(N/A)	17.28	J-1198
92	J-42	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	40.11	20.00	23.37	J-1197	(N/A)	16.29	J-1198
93	J-43	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	38.38	20.00	23.37	J-1197	(N/A)	16.29	J-1198
100	J-47	Forest	TRUE	1.00	3,500.00	1.68	3,500.68	20.00	47.18	20.00	23.37	J-1197	(N/A)	16.29	J-1198
101	J-48	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	43.03	20.00	23.37	J-1197	(N/A)	16.29	J-1198
109	J-52	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	52.17	20.00	23.37	J-1197	(N/A)	16.29	J-1198
133	J-65	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	44.46	20.00	23.71	J-1197	(N/A)	16.63	J-1198
134	J-66	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	33.79	20.00	23.71	J-1197	(N/A)	16.63	J-1198
158	J-77	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	35.87	20.00	31.78	J-3851	(N/A)	17.28	J-1198
159	J-78	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	31.59	20.00	31.78	J-3851	(N/A)	17.28	J-1198
219	J-102	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	21.66	20.00	21.56	J-103	(N/A)	17.28	J-1198
220	J-103	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	21.56	20.00	21.63	J-2373	(N/A)	17.28	J-1198
243	J-118	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	100.19	20.00	32.62	J-2323	(N/A)	17.28	J-1198
244	J-119	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	100.01	20.00	32.62	J-2323	(N/A)	17.28	J-1198
252	J-124	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	22.93	20.00	21.59	J-103	(N/A)	17.28	J-1198
253	J-125	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	22.75	20.00	21.59	J-103	(N/A)	17.28	J-1198
264	J-132	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	57.30	20.00	24.36	J-1197	(N/A)	17.28	J-1198
265	J-133	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	57.19	20.00	24.36	J-1197	(N/A)	17.28	J-1198
272	J-137	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	60.26	20.00	32.62	J-2323	(N/A)	17.28	J-1198
273	J-138	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	60.28	20.00	32.62	J-2323	(N/A)	17.28	J-1198
309	J-160	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	79.74	20.00	32.62	J-2323	(N/A)	17.28	J-1198
310	J-161	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	79.36	20.00	32.62	J-2323	(N/A)	17.28	J-1198
352	J-188	Stewartsville	TRUE	1.00	3,500.00	1.11	3,500.11	20.00	53.32	20.00	21.37	J-676	(N/A)	17.28	J-1198
353	J-189	Stewartsville	TRUE	1.00	3,500.00	1.40	3,500.40	20.00	53.15	20.00	21.24	J-676	(N/A)	17.28	J-1198
363	J-195	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	62.42	20.00	24.36	J-1197	(N/A)	17.28	J-1198
364	J-196	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	62.59	20.00	24.36	J-1197	(N/A)	17.28	J-1198
372	J-201	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	69.25	20.00	32.62	J-2323	(N/A)	17.28	J-1198
373	J-202	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	69.32	20.00	32.62	J-2323	(N/A)	17.28	J-1198
403	J-221	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	23.36	20.00	22.42	J-103	(N/A)	17.28	J-1198
404	J-222	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	23.47	20.00	22.42	J-103	(N/A)	17.28	J-1198
406	J-223	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	60.89	20.00	24.36	J-1197	(N/A)	17.28	J-1198
407	J-224	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	60.73	20.00	24.36	J-1197	(N/A)	17.28	J-1198
418	J-231	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	35.80	20.00	31.78	J-3851	(N/A)	17.28	J-1198
429	J-238	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	62.14	20.00	22.80	J-2919	(N/A)	17.28	J-1198
430	J-239	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	62.12	20.00	22.80	J-2919	(N/A)	17.28	J-1198
437	J-243	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	23.24	20.00	22.43	J-103	(N/A)	17.28	J-1198
458	J-256	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	62.17	20.00	32.62	J-2323	(N/A)	17.28	J-1198
459	J-257	Lakes	TRUE	1.00	3,500.00										

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
925	J-512	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	34.79	20.00	31.78	J-3851	(N/A)	17.28	J-1198
943	J-520	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	43.64	20.00	32.62	J-2323	(N/A)	17.28	J-1198
964	J-530	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	28.11	20.00	27.84	J-3163	(N/A)	17.28	J-1198
974	J-535	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	78.28	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1043	J-566	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	64.72	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1044	J-567	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	74.46	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1048	J-569	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	56.93	20.00	22.80	J-2919	(N/A)	17.28	J-1198
1079	J-580	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	66.47	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1080	J-581	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	68.49	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1131	J-599	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	54.19	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1132	J-600	Lakes	TRUE	1.00	3,500.00	3.24	3,502.24	20.00	40.70	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1139	J-602	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	58.33	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1182	J-619	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	28.81	20.00	29.39	J-3189	(N/A)	17.28	J-1198
1185	J-620	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	20.84	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1186	J-621	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	37.00	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1234	J-646	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	44.38	20.00	24.36	J-1197	(N/A)	17.28	J-1198
1239	J-647	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	62.97	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1240	J-648	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	47.91	20.00	31.62	J-2323	(N/A)	17.28	J-1198
1250	J-651	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	48.89	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1271	J-659	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	60.55	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1272	J-660	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	62.50	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1277	J-663	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	69.29	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1307	J-677	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	58.97	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1340	J-685	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	79.25	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1358	J-689	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	65.40	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1396	J-695	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	62.25	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1397	J-696	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	62.28	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1399	J-697	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	52.12	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1412	J-704	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	61.83	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1532	J-761	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	49.48	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1535	J-762	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	66.25	20.00	23.37	J-1197	(N/A)	16.29	J-1198
1538	J-763	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	79.19	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1542	J-765	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	76.43	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1544	J-766	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	72.99	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1545	J-767	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	70.72	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1547	J-768	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	75.83	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1549	J-769	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	99.82	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1550	J-770	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	95.02	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1552	J-771	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	66.76	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1554	J-772	Lakes	TRUE	1.00	3,500.00	5.18	3,504.18	20.00	71.58	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1556	J-773	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	74.48	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1558	J-774	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	76.41	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1560	J-775	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	80.57	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1562	J-776	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	75.96	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1565	J-777	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	78.86	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1570	J-778	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	84.19	20.00	32.62	J-2323	(N/A)	17.28	J-1198
1935	J-1012	Forest	TRUE	1.00	3,500.00	1.68	3,500.68	20.00	46.01	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2038	J-1078	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	117.34	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2039	J-1079	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	117.51	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2041	J-1080	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	118.03	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2043	J-1081	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	90.75	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2044	J-1082	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	90.87	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2046	J-1083	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	117.97	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2048	J-1084	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	118.37	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2050	J-1085	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	116.71	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2052	J-1086	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	69.44	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2053	J-1087	Lakes	TRUE	1.00	3,500.00	2.09	3,501.09	20.00	68.04	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2055	J-1088	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	50.33	20.00	23.38	J-1197	(N/A)	16.30	J-1198
2059	J-1089	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	93.38	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2061	J-1090	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	101.43	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2062	J-1091	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	102.04	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2064	J-1092	Forest	TRUE	1.00	3,500.00	1.68	3,500.68	20.00	46.12	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2066	J-1093	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	52.92	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2068	J-1094	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	82.24	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2069	J-1095	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	83.66	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2072	J-1096	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	57.57	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2074	J-1097	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	100.98	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2078	J-1098	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	74.58	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2081	J-1099	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	85.41	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2134	J-1131	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	69.97	20.00	32.62	J-2323	(N/A)	17.28	J-1198
2247	J-1200	Forest	TRUE	1.00	3,500.00	1.68	3,500.68	20.00	25.34	20.00	21.11	J-1519	(N/A)	17.28	J-1198
2365	J-1268	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	106.82	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2366	J-1269	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	106.82	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2368	J-1270	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	164.61	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2369	J-1271	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	160.62	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2371	J-1272	Forest	TRUE	1.00	3,500.00	1.88	3,500.88	20.00	75.24	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2372	J-1273	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	72.31	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2374	J-1274	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	49.01	20.00	23.37	J-1197	(N/A)		

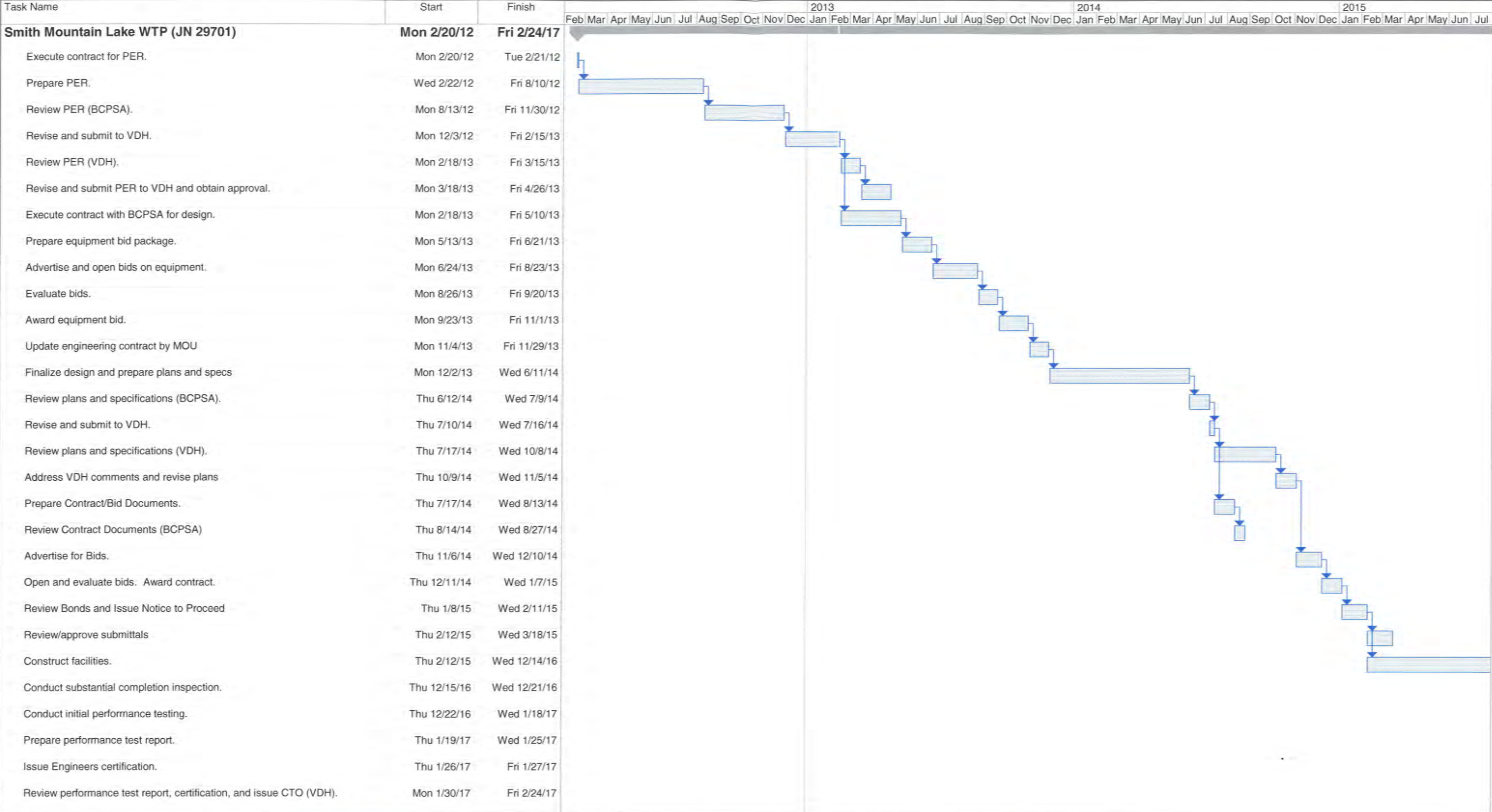
Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
2774	J-1500	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	86.90	20.00	23.37	J-1197	(N/A)	16.29	J-1198
2902	J-1572	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	80.57	20.00	23.37	J-1197	(N/A)	16.29	J-1198
3034	J-1632	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	105.17	20.00	23.37	J-1197	(N/A)	16.29	J-1198
3047	J-1640	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	27.76	20.00	27.80	J-2470	(N/A)	17.28	J-1198
3048	J-1641	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	26.50	20.00	27.76	J-1640	(N/A)	17.28	J-1198
3055	J-1645	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	63.02	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3056	J-1646	Lakes	TRUE	1.00	3,500.00	1.46	3,500.46	20.00	61.39	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3150	J-1705	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	81.55	20.00	23.37	J-1197	(N/A)	16.29	J-1198
3159	J-1710	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	85.43	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3160	J-1711	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	81.79	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3213	J-1742	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	23.31	20.00	27.68	J-3477	(N/A)	17.28	J-1198
3214	J-1743	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	27.70	20.00	27.55	J-1742	(N/A)	17.28	J-1198
3221	J-1747	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	57.89	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3281	J-1785	Lakes	TRUE	1.00	3,500.00	1.63	3,500.63	20.00	25.65	20.00	25.52	J-1628	(N/A)	17.28	J-1198
3307	J-1799	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	34.76	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3426	J-1864	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	59.32	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3427	J-1865	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	43.67	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3563	J-1943	Lakes	TRUE	1.00	3,500.00	2.81	3,501.81	20.00	40.44	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3571	J-1947	Lakes	TRUE	1.00	3,500.00	2.24	3,501.24	20.00	68.10	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3590	J-1958	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	72.72	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3591	J-1959	Lakes	TRUE	1.00	3,500.00	3.97	3,502.96	20.00	28.53	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3913	J-2124	Lakes	TRUE	1.00	3,500.00	1.72	3,500.72	20.00	39.55	20.00	32.62	J-2323	(N/A)	17.28	J-1198
3943	J-2138	Forest	TRUE	1.00	3,500.00	2.28	3,501.28	20.00	24.22	20.00	22.17	J-2116	(N/A)	16.29	J-1198
4464	J-2337	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	79.88	20.00	23.37	J-1197	(N/A)	16.29	J-1198
4511	J-2364	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	23.48	20.00	22.17	J-103	(N/A)	17.28	J-1198
4522	J-2370	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	85.79	20.00	23.37	J-1197	(N/A)	16.29	J-1198
4527	J-2373	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	20.40	20.00	21.56	J-103	(N/A)	17.28	J-1198
4534	J-2377	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	50.97	20.00	23.37	J-1197	(N/A)	16.29	J-1198
4584	J-2407	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	30.91	20.00	31.59	J-78	(N/A)	17.28	J-1198
4612	J-2423	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	57.74	20.00	32.62	J-2323	(N/A)	17.28	J-1198
4636	J-2437	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	111.07	20.00	32.62	J-2323	(N/A)	17.28	J-1198
4698	J-2470	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	26.29	20.00	27.76	J-1640	(N/A)	17.28	J-1198
4731	J-2489	Forest	TRUE	1.00	3,500.00	2.08	3,501.08	20.00	21.90	20.00	22.42	J-103	(N/A)	17.28	J-1198
4789	J-2521	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	22.95	20.00	21.61	J-1519	(N/A)	17.28	J-1198
4790	J-2522	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	25.20	20.00	21.61	J-1519	(N/A)	17.28	J-1198
4808	J-2531	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	59.19	20.00	24.36	J-1197	(N/A)	17.28	J-1198
4841	J-2550	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	60.64	20.00	23.37	J-1197	(N/A)	16.29	J-1198
4870	J-2566	Forest	TRUE	1.00	3,500.00	1.88	3,500.88	20.00	24.76	20.00	21.96	J-103	(N/A)	17.28	J-1198
5123	J-2712	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	93.53	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5124	J-2713	Forest	TRUE	1.00	3,500.00	1.88	3,500.88	20.00	96.07	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5174	J-2741	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	65.99	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5199	J-2754	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	67.11	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5221	J-2767	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	77.59	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5245	J-2782	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	52.44	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5374	J-2857	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	40.62	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5388	J-2866	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	36.15	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5432	J-2890	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	45.61	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5433	J-2891	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	43.38	20.00	23.37	J-1197	(N/A)	16.29	J-1198
5509	J-2933	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	64.18	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5604	J-2988	Lakes	TRUE	1.00	3,500.00	1.46	3,500.46	20.00	112.91	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5643	J-3010	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	26.69	20.00	27.09	J-4062	(N/A)	17.28	J-1198
5644	J-3011	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	30.00	20.00	27.09	J-4062	(N/A)	17.28	J-1198
5669	J-3026	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	79.81	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5805	J-3105	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	76.38	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5847	J-3128	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	60.03	20.00	24.36	J-1197	(N/A)	17.28	J-1198
5849	J-3129	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	77.59	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5860	J-3135	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	92.05	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5872	J-3142	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	58.15	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5881	J-3147	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	73.83	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5900	J-3157	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	73.70	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5909	J-3162	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	69.94	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5913	J-3164	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	75.78	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5917	J-3166	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	71.13	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5922	J-3169	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	81.02	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5929	J-3173	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	73.13	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5947	J-3184	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	37.48	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5949	J-3185	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	66.55	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5957	J-3189	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	26.38	20.00	28.81	J-619	(N/A)	17.28	J-1198
5963	J-3192	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	63.91	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5974	J-3198	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	72.77	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5981	J-3202	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	40.39	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5991	J-3208	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	59.62	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5993	J-3209	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	75.11	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5995	J-3210	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	56.02	20.00	32.62	J-2323	(N/A)	17.28	J-1198
5999	J-3212	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	61.96	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6013	J-3220	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	80.09	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6044	J-3238	Forest	TRUE	1.00	3,500.00	1.68	3,500.68	20.00	27.79	20.00	23.37	J-1197	(N/A)	16.29	J-1198
6045	J-3239	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	31.07	2					

Node ID	Node Label	Pressure Zone	Fire Flow Constraints Satisfied	Desired Fire Flow (gpm)	Available Fire Flow (gpm)	Total Flow Desired (gpm)	Total Flow Available (gpm)	Desired Residual Pressure (psi)	Calculated Residual Pressure (psi)	Desired Minimum Zone Pressure (psi)	Calculated Minimum Zone Pressure (psi)	Minimum Zone Pressure Node	Desired Minimum System Pressure (psi)	Calculated Minimum System Pressure (psi)	Minimum System Pressure Node
6833	J-3706	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	96.57	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6834	J-3707	Lakes	TRUE	1.00	3,500.00	1.29	3,500.29	20.00	101.39	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6875	J-3731	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	57.96	20.00	32.62	J-2323	(N/A)	17.28	J-1198
6941	J-3770	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	53.04	20.00	24.36	J-1197	(N/A)	17.28	J-1198
6974	J-3788	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	51.28	20.00	24.36	J-1197	(N/A)	17.28	J-1198
7025	J-3818	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	63.61	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7033	J-3822	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	52.57	20.00	22.80	J-2919	(N/A)	17.28	J-1198
7038	J-3825	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	39.59	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7040	J-3826	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	56.98	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7042	J-3827	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	84.16	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7044	J-3828	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	54.10	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7077	J-3847	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	41.60	20.00	22.80	J-2919	(N/A)	17.28	J-1198
7082	J-3850	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	43.07	20.00	24.36	J-1197	(N/A)	17.28	J-1198
7086	J-3852	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	40.03	20.00	24.36	J-1197	(N/A)	17.28	J-1198
7165	J-3895	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	116.09	20.00	32.62	J-2323	(N/A)	17.28	J-1198
7169	J-3896	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	83.80	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7175	J-3899	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	69.90	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7184	J-3902	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	61.59	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7186	J-3903	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	71.37	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7199	J-3910	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	95.60	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7202	J-3911	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	79.39	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7211	J-3915	Forest	TRUE	1.00	3,500.00	1.28	3,500.28	20.00	66.21	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7229	J-3925	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	73.80	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7258	J-3939	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	74.92	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7348	J-3975	Lakes	TRUE	1.00	3,500.00	1.20	3,500.20	20.00	77.76	20.00	32.62	J-2323	(N/A)	17.28	J-1198
7569	J-4052	Lakes	TRUE	1.00	3,500.00	1.37	3,500.37	20.00	73.09	20.00	32.62	J-2323	(N/A)	17.28	J-1198
7763	J-4109	Forest	TRUE	1.00	3,500.00	2.48	3,501.48	20.00	89.97	20.00	23.37	J-1197	(N/A)	16.29	J-1198
7808	J-4122	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	134.45	20.00	23.37	J-1197	(N/A)	16.29	J-1198
8534	J-4217	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	40.08	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8536	J-4218	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	27.95	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8538	J-4219	Forest	TRUE	1.00	3,500.00	1.48	3,500.48	20.00	85.98	20.00	23.37	J-1197	(N/A)	16.29	J-1198
8540	J-4220	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	47.57	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8542	J-4221	Forest	TRUE	1.00	3,500.00	1.08	3,500.08	20.00	55.40	20.00	24.36	J-1197	(N/A)	17.28	J-1198
8614	J-4223	Forest	TRUE	1.00	3,500.00	1.00	3,500.00	20.00	67.52	20.00	23.37	J-1197	(N/A)	16.29	J-1198
8617	J-4224	Forest	TRUE	1.00	3,500.00	1.00	3,500.00	20.00	67.52	20.00	23.37	J-1197	(N/A)	16.29	J-1198
8679	J-4225	Forest	TRUE	1.00	3,500.00	1.00	3,500.00	20.00	85.99	20.00	23.37	J-1197	(N/A)	16.29	J-1198



APPENDIX E
PROJECT SCHEDULE

SMITH MOUNTAIN LAKE
WATER TREATMENT PLANT
(JN 29701)



Project: Smith Mountain Lake WTP (J
Date: Wed 2/13/13

Task
Split



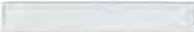
Progress
Milestone



Summary
Project Summary



External Tasks
External Milestone



External Milestone



External Milestone





APPENDIX F

DRAFT WATER WITHDRAWAL PERMIT
(UNOFFICIAL COPY)

DATE

FACT SHEET

Modification of Virginia Water Protection Individual Permit No. 96-0707
Bedford County Public Service Authority, Smith Mountain Lake Water Treatment Plant Withdrawal
Project, Bedford County, VA

DEQ has reviewed the application for a modification to Virginia Water Protection (VWP) Individual Permit Number 96-0707 and has determined that the project qualifies for major permit modification. Based on the information provided in the application and in compliance with § 401 of the Clean Water Act as amended (33 USC 1341 et seq.) and the State Water Control Law and regulations, DEQ has determined that there is a reasonable assurance that the activity authorized by this permit will protect in-stream beneficial uses, will not violate applicable water quality standards, and will not cause or contribute to significant impairment of state waters or fish and wildlife resources, provided the permittee complies with all permit conditions.

Surface water impacts have been avoided and minimized to the maximum extent practicable. The proposed permit also addresses protection of in-stream beneficial uses via flow monitoring and reporting and implementation of operating procedures that promote conservation.

The following details the application review process and summarizes relevant information for developing the Part I - Special Conditions for permit issuance.

1. Contact Information:

Permittee Legal Name and Address:

Bedford County Public Service Authority
Attn: Mr. Brian Key, PE
1723 Falling Creek Road
Bedford, VA 24523
540-586-7679
Email: b.key@bcpsa.com

Owner Legal Name and Address:

American Electric Power (dba Appalachian Power Company)
P. O. Box 2021
Roanoke VA 24002-2121
Attn: Mr. Frank M. Simms

Agent Legal Name and Address:

Anderson & Associates, Inc
100 Ardmore Street
Blacksburg VA 24060
Attn: Mr. David Inman
540-552-5592
800-763-5596

2. Joint Permit Application (JPA) Processing Dates:

Received Application:	3/16/11
Joint Publication with VMRC of Received JPA:	did not post*
SPGP Determination letter sent to USACE:	3/25/11
Notice from VMRC re: no permit required:	3/28/11*
1 st Request for Additional Information Sent:	5/10/11
Response to 1 st Request for Additional Information Received:	6/24/11
2 nd Request for Additional Information Sent:	5/4/12
Response to 2 nd Request for Additional Information Received:	5/24/12
Letter sent to Bedford County Commissioner of Revenue:	7/11/12
Letter sent to Franklin County Commissioner of Revenue:	not applicable (used county website)
Letters sent to VDH, VDGIF, VDCR:	7/24/12
Letters sent to VMRC:	3/25/11 & 9/26/12
Letters sent to Riparian Land Owners:	8/17/12
3 rd Request for Additional Information Sent:	8/28/12
Letter(s) sent to Local Government(s):	9/4/12
Response to 3 rd Request for Additional Information Received:	9/13/12
Application Complete:	9/13/12
Processing Deadline (120 days from Complete Application):	1/13/13
Permit Fee request sent to BCPSA:	10/9/12
Permit Fee Deposited by Accounting:	10/23/12
Draft Permit Package Issued:	
Copy of Public Notice sent to DEQ Central Office:	
Copy of Public Notice sent to Admin. Board. Planning:	
Public Notice Published:	
End of 30-Day Public Comment Period:	
Received Verification of Publication:	
Public Meeting or Hearing (if applicable):	

*: VMRC notified staff via email on 3/28/11 that because the new intake structures would not encroach upon the historic channel, VMRC would not require a permit.

3. Project Location:

County:	Bedford
Waterbody:	Smith Mountain Lake
Basin:	Roanoke River
Subbasin:	Upper Roanoke River
HUC:	03010101
Section/Class/Sp Stds:	6i / IV / PWS; designated as nutrient rich waters under 9VAC25-260-350.
Latitude & Longitude:	Existing Raw Water Intake: 37°07'16" N -79°38'46" W
U.S.G.S. Quadrangle:	Moneta SW
State Watershed No.:	03010101RU19
TMDL Status:	No TMDL segments exist at the reservoir or intake sites.

4. Project Description:

The Bedford County Public Service Authority (BCPSA) proposes to expand the existing intake structure at the High Point water intake site on Smith Mountain Lake (SML) in Bedford County from its currently permitted, maximum daily rate of 2.99 million gallons to a maximum daily rate of 12 million gallons. The intake supplies the nearby High Point Water Treatment Plant (WTP), which has a current VDH waterworks operation permit allowing a treatment capacity up to 0.770 mgd. The JPA states that the expansion is needed to provide a reliable source of water to growing communities in both Bedford and Franklin Counties. This includes growth in both the amount of water used within the current Lakes-High Point service area and expansion to additional service areas by waterline extensions. The new waterlines would allow water withdrawn in the Lakes-High Point area to be sent to the Forest and Bedford City water systems. BCPSA currently provides water to the Forest water system via a purchase agreement with the City of Lynchburg that is in effect until 6/30/2022. The JPA states that the purchase agreement between Lynchburg and BCPSA does not have a limit on the volume that is sent to BCPSA.

BCPSA sells water withdrawn from the High Point water intake to the Western Virginia Water Authority (WVWA) via a purchase agreement for up to 0.4 mgd. The WVWA provides water to the Westlake service area on the Franklin County side of Smith Mountain Lake. The applicant states that new waterline extensions in Franklin County would provide service between the Westlake system and Route 220 North. However, the Franklin County Summary of Capital Improvement Projects contained within its FY 2011-2012 Capital Improvement Program does not list any planned waterline extensions through FY2015-2016.

Future proposed demands for the City of Bedford were not originally included in the JPA. However, the City is in the process of reverting to a Town within Bedford County. The Bedford County Board of Supervisors approved an amended reversion agreement in August, 2012 and, according to a response to a request for additional information received September 13, 2012, the reversion process is expected to be complete within the next year. The reversion agreement states that a new joint water and sewer authority will be created to consolidate the services currently provided by the City and County, provided that the two entities enter into a Utility Consolidation Agreement by November 30, 2012. As of December 31, 2012, both the City and County had ratified the agreement. The reversion agreement also includes a provision that an interconnection between the City and County (BCPSA) water systems must be in place by December, 2016. BCPSA views the interconnection initially as serving as an emergency water supply for the City and that it may become the permanent supply if the City's existing infrastructure requires significant upgrades or repairs. The addition of the City of Bedford's future demands did not, however, increase the volume of the proposed withdrawals that were originally included within the JPA.

5. Major Modification Description

This action is a major modification to the permit originally issued on September 12, 1997 and reissued on November 30, 2007. This major modification is predicated on the proposed increase in maximum daily withdrawal rate from the current value of 2.99 million gallons to 12 million gallons per day (mgd), with a proposed average annual daily flow (AADF) of 6.0 mgd. A Preliminary Engineering Report (PER) provided with the JPA that analyzes various water supply alternatives recommends expansion of the current Lakes-High Point WTP capacity to 1.0 mgd and construction of a new, regional WTP near the existing Lakes-High Point WTP with a 5.0 mgd capacity. Staff reviewed the proposed withdrawal increase for the demand anticipated over a 30-year planning period and over the 15-year permit term to 2028.

This modification is intended for the expansion of the existing intake only. Any potential impacts related to future waterline extensions and/or water treatment plant expansion or construction are not part of this modification and would be permitted separately.

6. Water Withdrawal Use, Need and Demand:

Purpose of Water Uses

The proposed system is a public water supply for parts of Bedford County and Franklin County near Smith Mountain Lake. The predominant types of water use are residential and commercial.

Basis of Need

The applicant statement of need is to support expected future growth in several service areas within both Bedford County and Franklin County. The application provided projected future demand estimates taken from several consultant studies to support water supply needs:

- A Preliminary Engineering Report (PER) by Thompson & Litton (2003) for the Burnt Chimney/SML area that provided projected use rates near SML in Franklin County.
- U. S. Rte 220 North Water System Evaluation by Thompson & Litton (2004) that provided projected use rates for areas west of SML in Franklin County.
- A PER by Anderson & Associates (2011) that provided projected use rates for the Lakes-SML and Forest service areas in Bedford County. This report contains an alternatives analysis to for expanding water service across Bedford County.
- Water and Sewer Master Plan for BCPSA (2009) by Draper-Aden Associates
- Two regional water supply plans: 1) Region 2000 (2009) by Draper-Aden Assoc & Malcolm Pirnie; and 2) Roanoke Valley-Alleghany Regional Commission Regional Water Supply Plan (2010) by Draper-Aden Assoc.

The projected future Bedford County demands in the JPA and associated add-info responses for 15 to 30-year periods derived from the above consultant reports generally agree with demands listed in the water supply plans. In Section 27 of the JPA, the applicant reported a statistical population (growth) trend for Bedford County as currently 4% and in the future as 1.1%; and for Franklin County as currently 0.9%. The Documentation of Need in the JPA (Tab 7) refers to the BCPSA Water and Sewer Master Plan (2009) as its source for population growth trends. That document, however, reports population projections only for 2010, 2020 & 2030 as reported by VEC (Table 3 of BCPSA Water and Sewer Master Plan (2009)). The VEC projections indicate population growth of approximately 1.7% per year from 2006 to 2010, followed by approximately 1% per year from 2010 to 2030. The same document then goes on to present BCPSA water demand projections that equal 4% per year for 2008-2018 and 1.1% per year for 2018 to 2028 (Table 5 of same document). (The same annual breakdown of residential demand projections is included in Appendix D-3 of the Region 2000 Water Supply Plan.) These projections were based on the assumption that "...water infrastructure will inevitably be expanded to provide service to many of the existing residents currently on individual wells or within privately supplied systems". Therefore, staff could not find support in the application for a current Bedford County population growth trend of 4% per year.

Staff compared the projected future population growth rates that were supplied for the proposed BCPSA and WVWA service areas with separate estimates of 2010 and future (2028) population estimates

determined by interpolation of the VEC population projections. The two projected population estimates were similar. Projected residential demand rates for 2028 based on the interpolated VEC population estimate (using a 75 gpd per capita use rate) were, however, less than the requested average annual daily flows (AADF) for the six BCPSA and WVWA service areas (5.59 mgd vs. 6.62 mgd). Most of the difference between the population-based projected 2028 residential demand of 5.59 mgd and the applicant's total projected demand is due to projected commercial, institutional, industrial and un-accounted uses for the City of Bedford that total 0.89 mgd (Region 2000 Water Supply Plan, Appendix D-3).

Water Demand Projection

A major assumption supporting the projected future demand is that both BCPSA and the Western Virginia Water Authority (WVWA) will extend service to a significant number of previously self-supplied users within their projected service areas by the end of the 15-year permit term, especially within Franklin County. The table below lists recent and projected AADF by service area:

Table 1: Water Withdrawals and Projected Demands in BCPSA and WVWA in Franklin County:

County	Service Area	2009 ADF mgd ¹	2010 ADF mgd ¹	2011 ADF mgd ¹	AADF projected over permit (mgd) ²	AADF 20- 35 year projection (mgd) ³
Bedford	Bedford City	1.01	0.93	0.89	1.31	1.95
Bedford	BCPSA Forest	1.56	1.50	1.38	2.14	2.71
Bedford	BCPSA Lakes-High Point (used in Bedford County)	0.28	0.39	0.30	0.54	0.74
	Bedford County use/demand subtotals	2.85	2.82	2.57	3.99	5.40
Franklin	WVWA-Westlake (Purchased by WVWA from BCPSA Lakes- High Point)	0.11	0.17	0.18	1.65	1.6
Franklin	WVWA 220 North	n/a ⁴	n/a ⁴	0.03	0.85	0.83
Franklin	WVWA Boones Mill	0.07	0.08	0.07	0.13	0.13
	Franklin County WVWA use/demand subtotals	0.18	0.25	0.28	2.63	2.56
	Totals (BCPSA + WVWA)	3.03	3.08	2.85	6.62	7.96

Notes:

1. reported 2009-2011 flows: VWUDS and add info responses 5/2012 & 9/2012
2. projected flows for permit duration: add info responses 6/2011 & 9/13/12
3. projected 20-35 yr demands:
 - o Bedford service areas: (2048) Table 1 from Anderson & Assoc., (1/2011, JPA, Tab 7)

- Franklin 220 North & Boones Mill service areas: from PER for U.S. 220 North Water System Evaluation (Thompson & Litton, 2004; JPA Tab 7)
 - Franklin WVWA-Westlake service area: from PER for SR 122/Burnt Chimney/Smith Mountain Lake Water Distribution System (Thompson & Litton, 2003; JPA Tab 7)
4. n/a = not reported by WVWA

Approximately 40% (2.63 mgd) of the projected AADF of 6.62 mgd total demand over the permit duration would be needed for service areas within Franklin County. Recent (2011) reported AADF demand for water within WVWA service areas supplied by BCPSA was approximately 0.18 mgd. Therefore, future service area expansions and connections that would provide approximately 2.63 mgd (44%) of the requested 6.0 mgd AADF are required by an entity that is not party to the permit application. Within Section 3 (Project Purpose) of the JPA it was stated that the expansion of the surface water intake is "... needed to provide a reliable source of water to the growing communities in both Bedford and Franklin Counties (WVWA)." In Section 27 of the JPA (Water Withdrawal Use, Need, and Alternatives) the project was identified as a "...continued regional effort between the BCPSA and the WVWA."

DEQ has had a number of recent "regional" permit applications involving demand from multiple parties that were not firmed up prior to issuance of the permit. In these instances the parties failed to reach agreement and the permit ultimately allocated more water than justified during the permit term. Therefore, in response, DEQ believes that allocation of additional water from Smith Mountain Lake will only be made to those who are parties to the permit. Bedford County PSA however, in response to a request for additional information in June, 2012, opted to remain the sole applicant. Therefore, only the applicant's direct needs will be considered.

Expansion of service throughout most of the BCPSA-Lakes-SML service area is planned for completion within the next few years. The BCPSA Summary of Projects table submitted with the May 2012 response to DEQ's request for additional information indicates that the planned 5.0 mgd WTP and waterline extensions to near Bedford City and the Forest service area may potentially be completed within the term of the permit. Expansion of service to new areas outside of Bedford County (within WVWA service areas) would depend upon expenditures by an entity that is not party to the permit.

The JPA contains peak day factors (projected peak day to AADF ratio) of 2.0 for each service area. Reported metered information regarding peak day and peak month flows is very limited. The reported BCPSA Lakes-High Point service area peak day factor ranged from 1.8 to 3.5 for 2007 and 2009-2011 (2008 peak day flow wasn't reported). Reported peak day factors for 2007 -2011 for the City of Bedford ranged from 1.7 to 2.1 and averaged 1.8. Neither Lynchburg nor BCPSA has reported peak day flows for the water delivered by Lynchburg to BCPSA for the Forest service area. Peak day flows for water sold to 1) WVWA's SML-Westlake service area from the BCPSA Lakes/SML service area and 2) BCPSA from the City of Lynchburg are not measured daily (meters read on a monthly basis only). For the BCPSA Lakes-High Point WTP service area the peak month factor (ratio of average flow during the peak month to the AADF) reported to DEQ ranged from 1.3 to 1.8 since 2007 and averaged 1.6. Peak month factors for the Forest Service area for the same period ranged from 1.2 to 1.4, and those for Bedford City were similar.

Table 2: Peak Day/AADF and Peak Month Average/AADF factors for BCPSA Service Areas

Service Area	Minimum Peak Day Factor	Maximum Peak Day Factor	Average Peak Day Factor (2007-2011)	Minimum Peak Month Factor	Maximum Peak Month Factor	Average Peak Month Factor (2007-2011)
Lakes- (High Point WTP)	1.8	3.5	2.8	1.3	1.8	1.6
Forest	nd	nd	nd	1.2	1.4	1.2
Bedford City	1.7	2.1	1.8	1.1	1.3	1.2
WVWA - Westlake	nd	nd	nd	1.3	2.6	1.8

nd: not determined (daily flows not measured)

The relatively high reported peak day and peak month factors for the BCPSA Lakes (High Point WTP) service area may be due to the large percentage of water transferred to the WVWA-SML service area for seasonal and holiday use. The smaller peak day and peak month factors representing demands from the Bedford City and Forest service areas may indicate smaller seasonal/holiday fluctuations due to a higher percentage of permanent residents. Because the majority (83%) of the future AADF demand would represent the Forest and Bedford City service areas, the overall peak day factor should reflect demands from these areas. Because the 2007-2011 peak month factors for both Bedford City and Forest are very similar, it is reasonable to assume that the peak day factors for these service areas may also be similar. Given the range of reported data on peak day factors from recent years, use of a peak day factor of 1.8 for the Forest and Bedford City service areas and 2.0 for the Lakes-High Point and Westlake service areas was considered reasonable.

Demands confirmed for this permit are listed below for the Bedford County service areas and for the existing demand in Franklin County that is currently supplied by BCPSA.

Table 3: Projected Demands Justified for BCPSA

Service Area	End of Permit AADF Demand (mgd)	End of Permit Peak Day Demand (mgd)
BCPSA-Forest	2.14	3.85
BCPSA Lakes-High Point	0.54	1.08
BCPSA-Bedford City	1.31	2.36
WVWA-Westlake	0.18	0.36
Total:	4.17	7.65

7. Alternatives Reviewed:

BCPSA included a Preliminary Engineering Report entitled “Lakes-Bedford-Forest Water Supply Evaluation, Bedford County, Virginia” by Anderson & Associates (January 13, 2011) within Tab 7 of the JPA (Documentation of Need) that analyzed the technical and financial feasibility of several alternative approaches to providing water service throughout all of BCPSA’s service areas. The alternatives that were evaluated included two approaches to providing service to the Forest service area and three alternatives to providing service to Bedford City.

Table 4: Alternatives Considered by BCPSA for Providing Water to the Forest and Bedford City areas

Alternative	Purpose	Description
A1	Service to Forest	Continue to purchase from City of Lynchburg
A2	Service to Forest	Deliver water from the Lakes service area along Rtes 122 and 460
B1	Service to Bedford City	Bedford City continues to supply & maintain its own system
B2	Service to Bedford City	Deliver water from the Lakes service area along Rte 122
B3	Service to Bedford City	Purchase water from City of Lynchburg and deliver along Rte 460

The report recommended implementation of alternatives A2 and B2 as the most cost effective approach to a regional water system in the long term.

BCPSA also included a site selection study for an expanded water treatment plant in the Lakes-High Point service area within Tab 6 of the JPA entitled “Smith Mountain Lake, Withdrawal Site Selection Study,” for Bedford County Public Service Authority & Western Virginia Water Authority, dated December 13, 2010, by Anderson & Associates, Inc. This study compared five potential locations and ranked them based on six primary criteria; environmental, site availability, site access, site development, water quality, and zoning. Sites 1, 2, and 3 were located on the Franklin County side of Smith Mountain Lake and would have required construction of new intakes and water treatment plants. Site 4 includes the existing intake location with a proposed treatment plant site on currently private property. Site 5 includes the existing intake location with a proposed treatment plant site on Bedford County property. Sites 4 and 5 (existing intake location) scored the highest in the environmental category and Site 5 was ranked the highest among all categories. The report recommended that Site 5 should be used for the intake and plant expansion project.

Both the Region 2000 and Roanoke Valley Alleghany Regional Commission (RVARC) Water Supply Plans contained recommendations for expansion of the current Smith Mountain Lake intake and water treatment plant capacity in the Lakes-High Point service area in a fashion similar to the Site 5 alternative.

Based upon staff’s review of the alternatives analysis and site selection study conducted by the applicant, use of the existing intake site is the least environmentally damaging, practicable alternative in light of the overall project purpose.

8. Water Withdrawal Volumes:

Water Withdrawal Volumes Requested in JPA

The applicant requested authorization of the following withdrawal volumes based upon the water demand projected for the Year 2028:

- Proposed maximum instantaneous withdrawal: 12,500 gpm ($2 \times \text{average daily} \times (24/16)$)
- Proposed average daily withdrawal: 6 mgd
- Proposed maximum daily withdrawal: 12 mgd ($2 \times \text{average daily}$)
- Proposed maximum monthly withdrawal: 270 MG ($1.5 \times \text{average daily} \times 30$)
- Proposed maximum annual withdrawal: 2190 MG ($\text{average daily} \times 365$)

Return Flow / Consumptive Use

A significant portion of the BCPSA Lakes-High Point service area and all of the WVWA-Westlake service area are located within the drainage area of Smith Mountain Lake. However, all of the wastewater associated with the proposed demand would serve areas with either septic tanks or non-discharging wastewater plants. Although a significant percentage of this wastewater would ultimately discharge as ground water baseflow to the lake or to streams that drain to the lake, the time lag between withdrawal, recharge and ultimate discharge to surface water would be very large. It is not likely that water withdrawn from the lake during the summer dry season or a significant drought period would return to the lake as ground water baseflow during the same season or drought period.

The remaining portion of the BCPSA Lakes-High Point service area, all of the Bedford City service area and approximately two-thirds of the Forest service areas are located in the Goose Creek or Big Otter River drainage basins, which discharge to the Roanoke River downstream of Smith Mountain Lake. The Bedford City wastewater system, which covers most of the Bedford City BCPSA service area, discharges to the Big Otter River. The Bedford City wastewater service area generally coincides with the area covered by the Bedford City water service area.

Approximately one-third of the Forest service area is located within the James River basin. Water supplied from SML to the Forest service area would presumably end the purchase of water from Lynchburg, which withdraws from the James River. This could result in a net decrease of water withdrawn from the James River basin. Wastewater within the Forest service area is discharged via septic systems or, in some areas, via sewers to Lynchburg's wastewater system and ultimately to the James River.

Therefore, except for the amount of flow sent to the City of Bedford's wastewater discharge, the proposed BCPSA withdrawals (as well as other withdrawals from the lake) should be considered 100% consumptive for the purposes of evaluating the effects of the water withdrawal during the drought of record period.

The water sent from SML to the portion of the Forest service area located within the James River basin represents an inter-basin transfer pursuant to § 62.1-44.15 because 1) it involves the transfer of water out of the Roanoke River basin, which flows to another state (North Carolina), and 2) all of the transferred water represents an expanded withdrawal from SML. In the case of inter-basin transfers, the statute requires the applicant to supply the following information in support of the transfer:

1. an analysis of alternatives to such a transfer

2. a comprehensive analysis of the impacts that would occur in the source and receiving basins
3. a description of measures to mitigate any adverse impacts that may arise
4. a description of how notice shall be provided to interested parties

BCPSA provided a description of the alternatives considered (see above).

Smith Mountain Lake is part of the Smith Mountain Hydroelectric Project (Smith Mountain Project). The Smith Mountain Project (SMP) is currently licensed by the Federal Energy Regulatory Commission (FERC) as a hydropower generation facility owned by American Electric Power (dba Appalachian Power Company, or APCO). A cumulative impact analysis of the potential effects of water withdrawals upon Smith Mountain lake levels and SMP release rates (and therefore downstream flows) was conducted as part of the SMP FERC relicensing effort. The current FERC license was issued on December 15, 2009 (FERC No P-2210). The SMP also has a current VWP permit (VWP #08-0572) that has special conditions that are consistent with the conditions of the FERC license. It was determined during the relicensing and repermitting process that consumptive public supply withdrawals from the project (Smith Mountain and Leesville lakes) totaling 12.5 mgd would not have a significant effect upon the operation of the SMP. Because approximately two-thirds of the Forest service area lies within the Roanoke River basin, the portion of the 2.14 mgd AADF justified for the Forest service area that would be effectively transferred to the James River basin would probably be less than the 2.0 mgd criterion for a North Carolina Interbasin Transfer Certificate.

The effects upon the receiving basin (James River) would consist of a decrease in direct withdrawals by the City of Lynchburg to supply the Forest service area. Because there would be no overall change to the wastewater flow within the sewered areas within this water service area, the existing WWTP discharge to the James River would presumably remain the same, causing a net benefit to the receiving basin. Therefore, no adverse impacts are anticipated to either basin.

Notice to interested parties will be incorporated into the public noticing for the application.

Conservation/drought operations

During the last BCPSA permit reissuance cycle, staff noted that Part I.D.11 in current permit 96-0707 is a condition that would allow DEQ to reopen the permit to require implementation of specific conservation measures when minimum releases from the SMP are reduced. The triggers that reduce downstream releases to the Roanoke River during drought conditions were finalized in the reissued FERC license for the SMP. At the time of reissuance, it was premature to assume that the same triggers would be appropriate for implementing conservation. The reopener condition would allow DEQ to revisit the issue after the FERC license was issued, if necessary.

The Region 2000 Water Supply Plan includes a description of the Bedford County Drought Response and Water Conservation Plan. The purpose of the plan is to provide for the declaration of the official stages of water supply shortages and for the implementation of voluntary and mandatory water conservation measures by BCPSA. The BCPSA Drought Response and Water Conservation Plan was approved on December 16, 2008 (from BCPSA website, accessed October 26, 2012).

Cumulative Impact Analysis

The applicant stated in the JPA that the proposed withdrawal rate would comprise a small percentage of both the summer monthly median and annual average daily stream flow rates (as measured prior to installation of the SMP at gauging station 02057500 just downstream of Smith Mountain dam on the Roanoke River). The estimated one-day averaged, adjusted low flow rate at this site (using the same

data), with a 200 year return period, is 51.7 cfs (Austin, Samuel H, et al, *Low-Flow Characteristics of Virginia Streams*, USGS SIR 2011-5143). Therefore, the accepted end-of-permit peak day flow demand of 7.65 mgd (11.8 cfs) is about 23% of the lowest estimated flow rate for the basin.

A cumulative impact analysis of the potential effects of water withdrawals upon Smith Mountain lake levels and SMP release rates (and therefore downstream flows) was conducted as part of the SMP FERC relicensing effort. The current FERC license was issued on December 15, 2009 (FERC No P-2210). The SMP also has a current VWP permit (VWP #08-0572) that has special conditions that are consistent with the conditions of the FERC license. It was determined during the relicensing and repermitting process that consumptive public water supply withdrawals from the project (Smith Mountain and Leesville lakes) totaling 12.5 mgd would not have a significant effect upon the operation of the SMP according to the new FERC license.

The Water Management Plan developed during relicensing by APCO for the SMP was based upon a hydrologic model that forecasts SML lake levels based upon the historic record of inflows, as well as other inputs, including withdrawals. The model input was set up so that the input daily withdrawal rate was unchanged throughout the simulation period of more than 40 years. The same withdrawal rate was used for each season through both wet and dry (drought) years and therefore no adjustment for seasonal variations in withdrawal rates was made. The effects of water withdrawals upon lake levels and downstream flows were examined during this process by determining the number of “trigger events” that occurred during a group of simulations with withdrawal inputs that varied from zero to 25 mgd. All of the water withdrawn was considered to be for consumptive and for public supply uses. A “trigger event” is a low SML lake level condition that represents drought periods. Increases in total net withdrawals did not result in significant differences in lake elevations in simulated normal and wet periods, but did cause noticeable lake elevation differences during dry periods (see graph on page 433 of P-2210 Flood & Drought Management Low Flow Operating Protocol Report). The evaluation process resulted in a modeling protocol (HL-8) that allowed for a net withdrawal from the project waters (Smith Mountain Lake and Leesville Lake) of 12.5 mgd. Because the evaluation process determined that a total net withdrawal of 12.5 mgd was protective of lake levels and ultimately downstream flows during drought periods, this total net withdrawal rate must be considered to represent the lake withdrawal that would occur during a drought. Staff believe that actual lake withdrawal rates will fluctuate between wet, normal and dry conditions and that withdrawal rates during dry periods will be greater than normal. Therefore the SMP allowable total net withdrawal rate of 12.5 mgd represents the total net (peak) withdrawal rate during drought conditions and is not an average annual rate.

The total reported and permitted maximum daily withdrawals from the SMP lakes (Smith Mountain and Leesville) are currently less than 12.5 mgd (Table 4). Applying a peak month factor of 1.5 to the justified BCPSA AADF of 4.17 mgd (plus 5% for plant losses) and assuming that the other existing or permitted SML withdrawals would operate at maximum daily rates results in a potential total withdrawal from the SMP of 8.71 mgd during a drought period, which is less than the 12.5 net withdrawal limit.

Therefore the cumulative impact analysis that was conducted for the SMP relicensing process was considered to be sufficient to estimate the potential cumulative impacts to existing beneficial uses and existing water users. However, staff conducted a simplified analysis of the potential effects of total net withdrawals during a drought period upon SMP lake levels. Staff included withdrawals from two unpermitted golf course facilities (Waterfront and Mariners Landing) because much of their withdrawals are used to irrigate and promote consumptive transpiration of turf grass, particularly during dry periods. The staff modeling analysis is attached to this fact sheet (Attachment A).

Table 5: Recent reported and current permitted maximum daily withdrawals from SMP lakes (Smith Mountain and Leesville)

Facility	Highest Recent (2007-2011) Max Daily Flow (mgd)	Highest Recent (2007-2011) Max Monthly Flow (MG)	Avg over Highest Recent Max Month (mgd)	Permitted Max Daily Flow (mgd)	Potential Max Daily Flow during a Drought (mgd)
BCPSA Lakes-High Point	0.84	14.85	0.48	2.99	6.57
Waterfront GC	1.00	8.00	0.26	Not permitted	1.00
Mariners Landing	0.24	3.10	0.10	Not permitted	0.24
Pittsylvania County-Leesville intake (not yet installed)	0.00	0.00	0.00	0.90	0.90
Total:	2.08	25.95	0.84	3.89	8.71

Based upon the results of the analysis, staff determined the proposed project as limited in the draft permit, will protect existing beneficial uses while meeting the applicant's statement of need.

Permit Withdrawal Limitations

The permit limits surface water withdrawals to the volume justified for the term of the permit based upon the application materials submitted and staff modeling analyses. Based upon this information, the permit proposes the following limits on the withdrawal volumes:

- AADF: $4.17 \text{ mgd} + 5\%$ for plant and other unaccounted loss: 4.38 mgd
- Peak day: $4.38 \text{ mgd} * 1.8 + 10\%$ MOS: 8.67 mgd
- Maximum annual withdrawal: $4.38 * 366$ days: 1603 MG/year
- Maximum monthly withdrawal: $4.38 \text{ mgd} * 1.5 * 30.5$: 200 MG/month

9. Water Supply Plan Review:

The JPA was coordinated with Water Supply Planning staff on October 24, 2012, who responded on the same day. The project is located within the area covered by both the RVARC and the Region 2000 Water Supply Plans. Both of these plans were developed in accordance with the Local and Regional Water Supply Planning Regulation 9VAC25-780.

The proposed project was identified as the preferred alternative for Bedford County, the City of Bedford and Franklin County in the RVARC Water Supply Plan. The Region 2000 Water Supply Plan also considered expansion of the BCPSA intake and water treatment capacity as a preferred alternative for Bedford County. The information submitted in the JPA is consistent with these plans. The applicable sections of the plans were considered in staff's evaluation of the proposed project.

10. Surface Water Impacts:

Impacts associated with the major modification

The permit authorizes a permanent impact to 30,000 square ft (0.69 acre) of open water due to the construction of two new surface water intakes within the existing easement. Any potential impacts related to the construction of the planned new regional water treatment plant were not considered in the application and are not authorized as part of this permit.

Water quality impacts are expected to be temporary and minimal provided the permittee abides by the conditions of the permit. A loss of state waters shall occur. However, the impacts have been avoided and minimized to the greatest extent practicable.

11. Compensation for Unavoidable Impacts:

Because there will be no loss of surface water area, and a minimal amount of anticipated open water impacts, and considering all avoidance and minimization measures provided, staff does not recommend requiring compensatory mitigation for such impacts in the VWP permit.

12. Site Inspection:

A site visit was conducted for this project on September 14, 2012. A summary of the site inspection is located in VWP Permit File No. 97-0707.

13. Relevant Regulatory Agency Comments:

As part of the application review process, DEQ contacted the appropriate state regulatory agencies. Any relevant agency comments were addressed in the VWP individual permit Part I - Special Conditions. Therefore, the staff anticipates no adverse effect on water quality or fish and wildlife resources provided the applicant adheres to the permit conditions.

Summary of State Agency Comments and Actions

By email dated July 24, 2012 and September 26, 2012, comments were requested from the following state agencies: Virginia Department of Game and Inland Fisheries (DGIF), Virginia Department of Conservation and Recreation (DCR), Virginia Department of Health (VDH) and the Virginia Marine Resources Commission (VMRC). Failure to provide comments within 45 calendar days of the DEQ request for comments infers that the agency has no comments on the project activities.

VDH: The Office of Drinking Water responded on August 20, 2012 with no comments.

VMRC: VMRC responded on November 1, 2012 that the intake location is located over a man-made area of Smith Mountain lake and does not fall within their jurisdiction.

DGIF: DGIF responded on September 24, 2012 with several comments. No listed wildlife species or resources are currently documented under DGIF jurisdiction from the project area. Therefore, no adverse impacts upon such species or resources are expected. DGIF supports the proposal to install a 1mm mesh screen on the intake. However, DGIF recommended that in order to best protect aquatic residents from impingement and entrainment associated with the intake, that the intake velocities not exceed 0.25 fps. Modeling data concerning the potential impacts upon flows downstream of SMP were initially requested. However this request was rescinded via email on October 24, 2012 after it was documented that the

modeling during SMP FERC relicensing was sufficient as long as total project consumptive withdrawals remain less than 12.5 mgd.

DCR: DCR responded on September 4, 2012 with comments from the DCR Divisions of Natural Heritage and Stormwater Management.

The Division of Natural Heritage searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in DCR's files, natural heritage resources have not been documented in the project area. The absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The Division commented that the current activity will not affect any documented state-listed plants or insects and that there are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

The Division of Stormwater Management commented that projects involving land-disturbing activities equal to or greater than 10,000 square feet must comply with the Virginia Erosion and Sediment Control Law and all applicable regulations adopted in accordance with that law.

Staff coordinated the comments from DGIF and DCR with the applicant and the applicant's consultant via email on October 9, 2012.

Summary of Federal Agency Comments and Actions

U.S. Army Corps of Engineers (USACE):

The project qualifies for a U.S. Army Corps of Engineers (USACE) individual permit, which the USACE public noticed on XXXXX.

The USACE requested additional information from the applicant via an email dated March 31, 2011 to Anderson & Associates, Inc (copy to DEQ). Information regarding wetlands and streams along proposed waterline extensions was requested, along with color exhibits of JPA figures 1 and 3. This information was also requested by DEQ via letter to Anderson & Associates, Inc on May 10, 2011. The applicant responded that the waterline extensions are not being requested as part of this JPA and therefore the only surface water area that will be affected is that within the existing intake buoy area (150 ft by 300 ft).

Federal Energy Regulatory Commission (FERC):

Smith Mountain Lake is part of the Smith Mountain Hydroelectric Project (Smith Mountain Project). The Smith Mountain Project (SMP) is currently licensed by FERC as a hydropower generation facility owned by APCO. FERC must approve any request made by BCPSA to utilize project waters for non-project activities (e.g., public water supply). APCO leads the process of requesting such approval from FERC. On October 3rd, 2012 staff met with APCO and BCPSA representatives to discuss BCPSA's application to FERC through APCO to utilize project waters. During this meeting Appalachian Power staff expressed their opinion that FERC will require inclusion of all interested stakeholders in their approval process. The FERC approval process can be concurrent with the VWP permitting process.

14. Public Involvement during Application Process:

Pre-Application

In accordance with 9 VAC 25-210-75.B.3 of the VWP Permit Program regulations, those who intend on submitting an application for a new or expanded major surface water withdrawal provide an opportunity for public comment on the proposed project, and shall assist in identifying public concerns or issues prior to filing a VWP individual permit application. The regulation also says that if the potential applicant receives a request for a public information meeting, at least one meeting must be held.

The applicant published a public notice regarding the application in February 2011, sent letters describing the project to 18 adjacent landowners, and held a public meeting regarding the project on February 15, 2011. A summary of the public comments received during this hearing was provided in the JPA (Tab 3). Several responses from adjacent landowners were also included in the JPA.

Riparian/Adjacent Landowner and Local Government Notification

Tab 5A of the JPA dated September 12, 2011, and revised October 11, 2011, provides information parcels, ownership, and mailing address for the properties on which the project falls. Staff verified the information provided for landowners and concurred that the information provided meets the requirements for obtaining landowner information from the local government tax roles.

Staff obtained information regarding approximately 200 riparian landowners located adjacent to the impact area and within one-half mile downstream of the proposed intake expansion from the Bedford County GIS Coordinator and from the Franklin County Commissioner of Revenue GIS website during August, 2012. Staff notified these landowners by letter dated August 17, 2012. Local governments (Bedford County and Franklin County) were notified by letter dated September 4, 2012.

Notifications of riparian and adjacent landowners and local governments were conducted in accordance with DEQ's Guidance Memorandum No. 11-2005 (Revised Local Government, Riparian Property Owner, Adjacent Property Owner or Resident, and General Public Notification Procedures for VPDES, VPSA and VWP Permit Applications and Draft Permits).

Staff received responses to the notification letter from 12 individuals between August 22, 2012 and October 6, 2012. Staff returned calls and emails to all respondents as soon as possible after receipt. Most of those who responded were concerned about future opportunities for public input. Several commented on their concern regarding the effect of more withdrawals upon already low lake levels. One respondent requested that staff visit the site and their property with them. Staff accepted and included the location into the site visit that was conducted on September 14, 2012.

Staff received 7 letters returned by the U.S. Postal Service that were marked undeliverable.

Public Meetings

15. Public Comments received during Comment Period: **AND/OR**

15. Changes in Permit Part I - Special Conditions Due to Public Comments:

The public notice was published in **XXX** on **XXX**. The public comment period ran from **XXX** to **XXX**.

[No public comments were received during the public comment period. Therefore, no changes have been made to the permit conditions.]

XX. State Water Control Board Meeting Summary:

The project was presented before the State Water Control Board (SWCB) on XXX....

16. Special Conditions:

The following conditions were developed to protect instream beneficial uses, to ensure compliance with applicable water quality standards, to prevent significant impairment of state waters or fish and wildlife resources, and to provide for no net loss of wetland acreage and function through compensatory mitigation and success monitoring and reporting.

Section A Authorized Activities

Nos. 1 through 3 address the activities authorized by this permit, including impact types and limits.

Section B Permit Term

Nos. 1 and 2 address the permit term and reissuance process to ensure that all permit conditions are completed.

Section C Standard Project Conditions

No. 1 addresses the requirement for the minimization of adverse impacts to in-stream and off-stream beneficial uses.

No. 2 addresses the minimization of adverse effects on navigation.

No. 3 is a time of year condition recommended by DGIF to minimize potential adverse impacts to fish during spawning season.

No. 4 ensures that dredging and filling operations during intake expansion will minimize stream bottom disturbances and turbidity.

No. 5 through 7 provide requirements and limitations on the entry of various materials (including concrete, fill, fuels, lubricants, and untreated stormwater runoff) into state waters.

No. 8 requires temporary disturbances to surface waters during construction to be avoided and minimized to the maximum extent practicable and the restoration of such temporary disturbances.

No. 9 prohibits the violation of Water Quality Standards in surface waters as a result of project activities

Nos. 10 through 15 set forth all reporting requirements concerning construction, monitoring, compensation, and restoration as required by current law and regulations.

Section D Water Withdrawal, Water Intake, Water Conservation, Monitoring and Reporting Conditions

No. 1 establishes the maximum allowable withdrawal rates to protect instream and offstream beneficial uses.

Nos. 2 and 3 assign reduced allocations if the waterline extensions are not completed by a designated time period to ensure that the allocations are used for their stated purposes during the time period of the permit. Completion of the Rte 122 South waterline extension is required in order for the permittee to

supply the Bedford City service area with water from SML. Completion of both the Rte 122 South waterline extension and the Rte 460 East waterline extension is required for the permittee to supply the Forest service area with water from SML. The date of December 31, 2016 was chosen as the deadline for completion of waterline extensions because the reversion agreement between the City of Bedford and Bedford County requires that the City and County complete an interconnection of their water systems by December, 2016. If the Rte 460 East extension is not completed by the December, 2016 deadline (Case 2), the allocations are reduced by the amount equal to the Forest service area allocation. If neither waterline extension is completed by the December, 2016 deadline (Case 3), the maximum allowable withdrawals are reduced to levels equal to those in the permit issued on November 30, 2007.

- No. 4 contains the screen size and intake velocity limits which reduce impingement and entrainment of aquatic organisms.
- No. 5 requires the permittee to mark the intake location to avoid a hazard to boats.
- Nos. 6 through 9, 11 and 12 require monitoring and reporting to protect all beneficial uses and to monitor peak water use within the Forest and Bedford City service areas.
- No. 10 requires conservation measures to protect minimum instream flows during declared drought emergencies.
- No. 13 requires specific conservation measures to be taken during Trigger 3 drought conditions that affect the operation of the Smith Mountain Project.

16. General Conditions:

General Conditions are applied to all VWP individual permits, as stated in the VWP Permit Program regulation.

17. General Standard:

This project may result in minimal, temporary impacts to beneficial uses related to the propagation and growth of aquatic life as defined in the General Standard. Provided the permittee abides by the conditions of the permit, no substances shall enter state waters in concentrations, amounts or combinations that would contravene established standards or interfere with beneficial uses or are inimical or harmful to human, animal, plant, or aquatic life.

18. Staff Findings and Recommendations:

- The proposed activity is consistent with the provisions of the Clean Water Act and State Water Control Law, and will protect beneficial uses.
- The proposed permit addresses avoidance and minimization of wetland impacts to the maximum extent practicable.
- The effect of the impact will not cause or contribute to significant impairment of state waters or fish and wildlife resources.
- The proposed permit conditions address no net loss of wetland acreage and function through compensatory mitigation.
- This permit is proposed to prevent unpermitted impacts.
- The draft permit reflects the required consultation with and full consideration of the written recommendations of VMRC, VDH, DCR and DGIF.

Staff recommends VWP Individual Permit Number 96-0707 be modified as proposed.

Approved:

Director, Water Division

Date

DRAFT

Attachment A**Virginia DEQ Modeling Support Document****Request to Modify VWP Permit 96-0707****JPA 11-0359 Bedford County PSA Smith Mountain Lake Project****Background**

The Bedford County Public Service Authority (BCPSA) proposes to expand the existing intake structure at the High Point Water Intake site on Smith Mountain Lake (SML) in Bedford County from its currently permitted, maximum daily rate of 2.99 million gallons to a maximum daily rate of 12 million gallons. Smith Mountain Lake is part of the Smith Mountain Hydroelectric Project (Smith Mountain Project). The Smith Mountain Project (SMP) is currently licensed by the Federal Energy Regulatory Commission (FERC) as a hydropower generation facility owned by American Electric Power (dba Appalachian Power Company). A cumulative impact analysis of the potential effects of water withdrawals upon Smith Mountain lake levels and SMP release rates (and therefore downstream flows) was conducted during 2008 as part of the SMP FERC relicensing effort. It was determined during the relicensing process (concluded in 2009) that consumptive withdrawals from the lake totaling 12.5 mgd would not have a significant effect upon operation of the SMP according to the new FERC license. SMP operations in accordance with the current FERC license and VWP permit conditions are therefore protective of downstream beneficial uses.

The modeling conducted during this process demonstrated that lake withdrawals up to 25 mgd did not significantly affect SMP operations during normal and wet conditions, but did have some effect during drought conditions. The available information indicates that the model input was set up so that the daily withdrawal rate was unchanged throughout the simulation period of more than 40 years. The same withdrawal rate was used for each season through both wet and dry (drought) years and therefore no adjustment for seasonal variations in withdrawal rates was made. It is a reasonable assumption that actual lake withdrawal rates would fluctuate between wet, normal and dry conditions and that withdrawal rates during dry periods would be greater than normal. Therefore the SMP allowable total net withdrawal rate of 12.5 mgd represents the total net withdrawal rate during drought conditions and is not an average annual rate.

The total reported and permitted maximum daily withdrawals from the SMP lakes (Smith Mountain and Leesville) are currently less than 12.5 mgd (Table 1). The SMP modeling analysis included only public water supply withdrawals. However, withdrawals from two unpermitted golf course facilities (Waterfront and Mariners Landing) were included in this analysis because much of their withdrawals are used to irrigate and promote consumptive transpiration of turf grass, particularly during dry periods.

Table 1: Recent reported and current permitted and proposed maximum daily withdrawals from SMP lakes (Smith Mountain and Leesville)

Facility	Highest Recent (2007-2011) Max Daily Flow (mgd)	Highest Recent (2007-2011) Max Monthly Flow (MG)	Avg over Highest Recent Max Month (mgd)	Permitted Max Daily Flow (mgd)
BCPSA Lakes-High Point	0.84	14.85	0.48	2.99
Waterfront GC	1.00	8.00	0.26	Not permitted
Mariners Landing	0.24	3.10	0.10	Not permitted
Pittsylvania County-Leesville intake (not yet installed)	0.00	0.00	0.00	0.90
Total:	2.08	25.95	0.84	3.89

Analysis

Staff conducted a simplified analysis of the potential effects of total net consumptive withdrawals upon Smith Mountain Lake elevations during a severe drought period. Assumptions made for the analysis were:

- SML and Leesville Lake act as a single “run of river” impoundment, without pump-back from Leesville Lake to SML
- releases equal inflows
- a four month (120-day) drought period
- the stage-storage data provided by AEP for the SMP provides an acceptably accurate estimate of lake area for each foot of lake elevation

The drop in lake elevation due solely to net withdrawals was estimated for each of a series of starting lake elevations using the following equation:

$X*Y*{3.07ac\text{-}ft/million\text{ gallons}} / \{Z\}*{12\text{ inches}/ft}$; where

- X = the number of days during the drought period
- Y = the total net withdrawal rate in million gallons per day
- Z = the surface area of the lake that corresponds to the starting elevation based upon the stage-storage relationship (acres)

This equation was solved for each one-foot increment in SML pool elevation (and therefore lake surface area) between a maximum of 795 ft NGVD and a minimum of 785 ft NGVD, using the available stage-storage relationship. The calculation was carried out for several withdrawal scenarios. Results are listed in Table 2.

Table 2: Smith Mt Lake elevation drops due to direct lake withdrawals during a 120-day drought period.

Scenario	Total Net Withdrawals (mgd)	Minimum Drop (inches)	Maximum Drop (inches)
1: Highest Reported Recent Max Daily Withdrawals	2.08	0.45	0.54
2: Current Permitted / Reported Max Daily Withdrawals	5.13	1.12	1.33
3: Potential Max Monthly Allocations + Reported Max Daily Withdrawals	8.70	1.90	2.25
4: Total Allowable Net Withdrawals	12.5	2.73	3.23

Description of scenarios:

Scenario 1: Highest Reported Recent Maximum Daily withdrawals from 2007-2011:

- BCPSA: 0.835mgd
- Waterfront golf course (non-permitted): 1.0 mgd
- Mariners Landing (non-permitted): 0.24 mgd
- Pittsylvania Leesville intake: 0.00 mgd
- Total = 2.08 mgd.

Scenario 2: Current Permitted Max Daily withdrawals+ Highest Reported Recent Maximum Daily withdrawals from 2007-2011 for non-permitted facilities:

- BCPSA: 2.99 mgd
- Pittsylvania Leesville intake: 0.90 mgd
- Waterfront golf course (non-permitted): 1.00 mgd
- Mariners Landing (non-permitted): 0.24 mgd
- Total = 5.13 mgd.

Scenario 3: Potential Maximum Monthly allocated withdrawals + Highest Reported Recent Maximum Daily withdrawals from 2007-2011 for non-permitted facilities:

- BCPSA: Max monthly allocation of 200 MG/month / 30.5 days/month = 6.56 mgd
- Pittsylvania Leesville intake: 0.90 mgd
- Waterfront golf course (non-permitted): 1.00 mgd
- Mariners Landing (non-permitted): 0.24 mgd
- Total = 8.70 mgd

Scenario 4: Total SML project withdrawals due to consumptive use incorporated into SML Project Water Management Plan over period of FERC license: 12.5 mgd

The maximum drop of 3.23 inches (0.27 ft) would occur due to a total net withdrawal rate of 12.5 mgd if the 120-day drought period began when the SML lake level was already at an extremely low (and previously unreached) elevation of 785 ft NGVD (see appendix below containing all calculations). If the SML elevation was at full pool (795 ft NGVD) at the beginning of the 120-day drought period, the drop due to a 12.5 mgd total net withdrawal rate would be 2.73 inches (about 0.23 ft).

Based on this analysis, current facilities have the potential to drop lake levels between 0.45 to 0.54 inches (approximately 0.05 ft) over an extended drought period. If the total net withdrawals reached 12.5 mgd over the same drought period, the affect upon lake levels could be between 2.73 and 3.23 inches (approximately 0.25 ft). These results are consistent with those from the sensitivity analysis of total net

withdrawals conducted by AEP during the SMP FERC relicensing process (see graph on page 433 of P-2210 Flood & Drought Management Low Flow Operating Protocol Report).

If the same analysis is conducted assuming a constant net evaporation rate from the lake of 7 inches/month (0.23 inches/day) over the same 120 day period, the following ranges of lake elevation drop due to both evaporation and net withdrawals would be, not surprisingly, significantly greater.

Table 3: Smith Mt Lake elevation drops due to both lake evaporation at a constant rate of 7 inches/month and direct lake withdrawals during a 120-day drought period.

Scenario	Total Net Withdrawals (mgd)	Minimum Drop (inches)	Maximum Drop (inches)
Highest Reported Recent Max Daily Withdrawals	2.08	28.05	28.14
Current Permitted / Reported Max Daily Withdrawals	5.13	28.72	28.93
Potential Max Monthly Allocations + Reported Max Daily Withdrawals	8.70	29.50	29.85
Total Allowable Net Withdrawals	12.5	30.33	30.83

Appendix: Calculations to estimate potential SMP lake elevation drop due to total net consumptive withdrawals and estimated evaporation:

Equation:

$X*Y*\{3.07\text{ac-ft/million gallons}\} / \{Z\}*\{12\text{ inches/ft}\}$; where

- X = the number of days during the drought period
- Y = the total net withdrawal rate in million gallons per day
- Z = the surface area of the lake that corresponds to the starting elevation based upon the stage-storage relationship (acres)

Calculations:

A. Drop due only to lake withdrawals:

Beginning Elevation (ft NGVD)	Beginning Lake Area (ac)	Scenario 1	Scenario 2	Scenario 3	Scenario 4
795	20260	0.45	1.12	1.90	2.73
794	19803	0.46	1.15	1.94	2.79
793	19514	0.47	1.16	1.97	2.83
792	19229	0.48	1.18	2.00	2.87
791.5	19087	0.48	1.19	2.02	2.90
791	18945	0.49	1.20	2.03	2.92
790	18540	0.50	1.22	2.07	2.98
789	18387	0.50	1.23	2.09	3.01
788	18112	0.51	1.25	2.12	3.05
787	17640	0.52	1.29	2.18	3.13
786	17570	0.52	1.29	2.19	3.15
785	17100	0.54	1.33	2.25	3.23

B. Drop due to both lake evaporation at constant rate of 0.23 inches/day plus lake withdrawals:

Beginning Elevation (ft NGVD)	Beginning Lake Area (ac)	Scenario 1	Scenario 2	Scenario 3	Scenario 4
795	20260	28.05	28.72	29.50	30.33
794	19803	28.06	28.75	29.54	30.39
793	19514	28.07	28.76	29.57	30.43
792	19229	28.08	28.78	29.60	30.47
791.5	19087	28.08	28.79	29.62	30.50
791	18945	28.09	28.80	29.63	30.52
790	18540	28.10	28.82	29.67	30.58
789	18387	28.10	28.83	29.69	30.61
788	18112	28.11	28.85	29.72	30.65
787	17640	28.12	28.89	29.78	30.73
786	17570	28.12	28.89	29.79	30.75
785	17100	28.14	28.93	29.85	30.83

Part II – General Conditions

A. Duty to Comply

The permittee shall comply with all conditions of the VWP permit. Nothing in the VWP permit regulations shall be construed to relieve the permittee of the duty to comply with all applicable federal and state statutes, regulations and prohibitions. Any VWP permit violation is a violation of the law, and is grounds for enforcement action, VWP permit termination, revocation, modification, or denial of an application for a VWP permit extension or reissuance.

B. Duty to Cease or Confine Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the activity for which a VWP permit has been granted in order to maintain compliance with the conditions of the VWP permit.

C. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any impacts in violation of the permit which may have a reasonable likelihood of adversely affecting human health or the environment.

D. VWP Permit Action

1. A VWP permit may be modified, revoked and reissued, or terminated as set forth in 9 VAC 25-210 et seq.
2. If a permittee files a request for VWP permit modification, revocation, or termination, or files a notification of planned changes, or anticipated noncompliance, the VWP permit terms and conditions shall remain effective until the request is acted upon by the board. This provision shall not be used to extend the expiration date of the effective VWP permit. If the permittee wishes to continue an activity regulated by the VWP permit after the expiration date of the VWP permit, the permittee must apply for and obtain a new VWP permit or comply with the provisions of 9 VAC 25-210-185 (VWP Permit Extension).

VWP permits may be modified, revoked and reissued or terminated upon the request of the permittee or other person at the board's discretion, or upon board initiative to reflect the requirements of any changes in the statutes or regulations, or as a result of VWP permit noncompliance as indicated in the Duty to Comply subsection above, or for other reasons listed in 9 VAC 25-210-180 (Rules for Modification, Revocation and Reissuance, and Termination of VWP permits).

E. Inspection and Entry

Upon presentation of credentials, any duly authorized agent of the board may, at reasonable times and under reasonable circumstances:

1. Enter upon any permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the VWP permit conditions;
2. Inspect any facilities, operations or practices (including monitoring and control equipment) regulated or required under the VWP permit; and
3. Sample or monitor any substance, parameter or activity for the purpose of ensuring compliance with the conditions of the VWP permit or as otherwise authorized by law.

F. Duty to Provide Information

1. The permittee shall furnish to the board any information which the board may request to determine whether cause exists for modifying, revoking, reissuing or terminating the VWP permit, or to determine compliance with the VWP permit. The permittee shall also furnish to the board, upon request, copies of records required to be kept by the permittee.
2. Plans, specifications, maps, conceptual reports and other relevant information shall be submitted as required by the board prior to commencing construction.

G. Monitoring and Records Requirements

1. Monitoring of parameters, other than pollutants, shall be conducted according to approved analytical methods as specified in the VWP permit. Analysis of pollutants will be conducted according to 40 CFR Part 136 (2000), Guidelines Establishing Test Procedures for the Analysis of Pollutants.
2. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
3. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart or electronic recordings for continuous monitoring instrumentation, copies of all reports required by the VWP permit, and records of all data used to complete the application for the VWP permit, for a period of at least three years from the date of the expiration of a granted VWP permit. This period may be extended by request of the board at any time.
4. Records of monitoring information shall include:
 - a. The date, exact place and time of sampling or measurements;

- b. The name of the individuals who performed the sampling or measurements;
- c. The date and time the analyses were performed;
- d. The name of the individuals who performed the analyses;
- e. The analytical techniques or methods supporting the information such as observations, readings, calculations and bench data used;
- f. The results of such analyses; and
- g. Chain of custody documentation.

H. Transferability

This VWP permit may be transferred to a new permittee only by modification to reflect the transfer, by revoking and reissuing the permit, or by automatic transfer. Automatic transfer to a new permittee shall occur if:

1. The current permittee notifies the board within 30 days of the proposed transfer of the title to the facility or property;
2. The notice to the board includes a written agreement between the existing and proposed permittee containing a specific date of transfer of VWP permit responsibility, coverage and liability to the new permittee, or that the existing permittee will retain such responsibility, coverage, or liability, including liability for compliance with the requirements of any enforcement activities related to the permitted activity; and
3. The board does not within the 30-day time period notify the existing permittee and the new permittee of its intent to modify or revoke and reissue the VWP permit.

I. Property rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize injury to private property or any invasion of personal rights or any infringement of federal, state or local law or regulation.

J. Reopener

Each VWP permit shall have a condition allowing the reopening of the VWP permit for the purpose of modifying the conditions of the VWP permit to meet new regulatory standards duly adopted by the board. Cause for reopening VWP permits includes, but is not limited to when the circumstances on which the previous VWP permit was based have materially and substantially changed, or special

studies conducted by the board or the permittee show material and substantial change, since the time the VWP permit was issued and thereby constitute cause for VWP permit modification or revocation and reissuance.

K. Compliance with State and Federal Law

Compliance with this VWP permit constitutes compliance with the VWP permit requirements of the State Water Control Law. Nothing in this VWP permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other state law or regulation or under the authority preserved by § 510 of the Clean Water Act.

L. Severability

The provisions of this VWP permit are severable.

M. Permit Modification

A VWP permit may be modified, but not revoked and reissued except when the permittee agrees or requests, when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of VWP permit conditions that differ from those of the existing VWP permit or are absent from it;
2. When new information becomes available about the operation or activity covered by the VWP permit which was not available at VWP permit issuance and would have justified the application of different VWP permit conditions at the time of VWP permit issuance;
3. When a change is made in the promulgated standards or regulations on which the VWP permit was based;
4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Act;
5. When changes occur which are subject to "reopener clauses" in the VWP permit; or
6. When the board determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use and the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to §§ 62.1-242 through 62.1-253 of the Code of Virginia, during the term of the VWP permit.

N. Permit Termination

After notice and opportunity for a formal hearing pursuant to Procedural Rule No. 1 (9 VAC 25-230-100) a VWP permit can be terminated for cause. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the VWP permit;
2. The permittee's failure in the application or during the VWP permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;
3. The permittee's violation of a special or judicial order;
4. A determination by the board that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by VWP permit modification or termination;
5. A change in any condition that requires either a temporary or permanent reduction or elimination of any activity controlled by the VWP permit; and
6. A determination that the permitted activity has ceased and that the compensatory mitigation for unavoidable adverse impacts has been successfully completed.

O. Civil and Criminal Liability

Nothing in this VWP permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this VWP permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under § 311 of the Clean Water Act or §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Unauthorized Discharge of Pollutants

Except in compliance with this VWP permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances;
2. Excavate in a wetland;

3. Otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life, to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses;
4. On or after October 1, 2001 conduct the following activities in a wetland:
 - a. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions;
 - b. Filling or dumping;
 - c. Permanent flooding or impounding;
 - d. New activities that cause significant alteration or degradation of existing wetland acreage or functions.

R. Permit Extension

Any permittee with an effective VWP permit for an activity that is expected to continue after the expiration date of the VWP permit, without any change in the activity authorized by the VWP permit, shall submit written notification requesting an extension. The permittee must file the request prior to the expiration date of the VWP permit. Under no circumstances will the extension be granted for more than 15 years beyond the original effective date of the VWP permit. If the request for extension is denied, the VWP permit will still expire on its original date and, therefore, care should be taken to allow for sufficient time for the board to evaluate the extension request and to process a full VWP permit modification, if required.

Part I – Special Conditions**A. Authorized Activities**

1. This permit authorizes the withdrawal of surface water from Smith Mountain Lake in Bedford County.
2. This permit authorizes the total permanent impact to 0.69 acres of open water, resulting from the construction of a new pump station. The authorized impact area shall be as depicted on “Figure 2 – Plan and Cross Section” dated and received on June 11, 2011.
3. Authorized activities shall be conducted as described in the Joint Permit Application (JPA) dated March 11, 2011 and received by DEQ on March 16, 2011, and supplemental materials, revisions and clarifications received through November 14, 2012. The permit authorization and conditions are also based on additional submittals approved by DEQ.

B. Permit Term

1. This permit is valid for **fifteen (15) years** from the date of issuance. A new permit may be necessary for the continuance of the authorized activities, including water withdrawals, or any permit requirement that has not been completed, including compensation provisions. The permit term, including any granted extensions, shall not exceed 15 years.
2. The permittee shall notify DEQ in writing at least 270 calendar days prior to the expiration of this permit if an extension of the permit term is required.

C. Standard Project Conditions

1. The activities authorized by this permit shall be executed in such a manner that any impacts to beneficial uses are minimized. As defined in § 62.1-10(b) of the Code, "beneficial use" means both instream and offstream uses. Instream beneficial uses include, but are not limited to, the protection of fish and wildlife habitat, maintenance of waste assimilation, recreation, navigation, and cultural and aesthetic values. Offstream beneficial uses include, but are not limited to, domestic (including public water supply), agricultural, electric power generation, commercial, and industrial uses. Public water supply uses for human consumption shall be considered the highest priority.
2. No maintenance activity shall cause more than minimal adverse effect on navigation.
3. Construction of the new intake structures, or any alterations of the existing intake structure or any appurtenant pilings and supports must take place between June 16 and February 14.
4. All excavation, dredging, or filling in surface waters shall be accomplished in a manner that minimizes bottom disturbance and turbidity.

5. Any construction, construction access, and demolition activities associated with this project shall be accomplished in a manner that minimizes construction materials or waste materials from entering surface waters, unless authorized by this permit. Wet, excess, or waste concrete shall be prohibited from entering surface waters.
6. Any fill material placed in surface waters shall be clean and free of contaminants in toxic concentrations or amounts in accordance with all applicable laws and regulations.
7. Measures shall be employed at all times to prevent and contain spills of fuels, lubricants, or other pollutants into surface waters.
8. Temporary in-stream construction features such as cofferdams shall be made of non-erodible materials.
9. Virginia Water Quality Standards shall not be violated in any surface waters as a result of the project activities.
10. All required notifications and submittals shall be submitted to the DEQ office stated below, to the attention of the VWP permit manager, unless directed in writing by DEQ subsequent to the issuance of this permit:

Office of Water Supply
P.O. Box 1105
Richmond, Virginia 23218

11. All reports required by this permit and other information requested by DEQ shall be signed by the permittee or a person acting in the permittee's behalf, with the authority to bind the permittee. A person is a duly authorized representative only if both criteria below are met. If a representative authorization is no longer valid because of a change in responsibility for the overall operation of the facility, a new authorization shall be immediately submitted to DEQ.
 - a. The authorization is made in writing by the permittee.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
12. All submittals shall contain the following signed certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate,

and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

13. Any fish kills or spills of fuels or oils shall be reported to DEQ immediately upon discovery at (540) 562-6814. If DEQ cannot be reached, the spill shall be reported to the Virginia Department of Emergency Management (DEM) at 1-800-468-8892 or the National Response Center (NRC) at 1-800-424-8802.
14. DEQ shall be notified in writing within 24 hours or as soon as possible on the next business day when potential environmentally threatening conditions are encountered which require debris removal or involve potentially toxic substances. Measures to remove the obstruction, material, or toxic substance or to change the location of any structure are prohibited until approved by DEQ.
15. The permittee shall notify the DEQ of any of any modifications of the intake structure. Any additional impacts, modifications, or changes shall be subject to individual permit review and/or modification of this permit.

D. Water Withdrawal, Water Intake, Water Conservation, Monitoring and Reporting Conditions

1. The maximum allowable withdrawal rates from Smith Mountain Lake are as follows (see Schedule A, Case 1 below):
 - a. The maximum daily water withdrawal shall not exceed 8.67 million gallons
 - b. The maximum monthly withdrawal shall not exceed 200 million gallons
 - c. The maximum annual water withdrawal shall not exceed 1603 million gallons
2. If the permittee has completed construction of the Route 122 South Waterline (Moneta to Bedford) Extension by December 31, 2016, but has not completed construction of the Route 460 East Waterline (New London to Bedford) Extension by December 31, 2016, then the maximum allowable withdrawal rates in Part I.D.1 will automatically be reduced. For the purposes of this permit, the maximum allowable withdrawal rates will be as listed in Schedule A, Case 2 below.
3. If the permittee has not completed construction of the Route 122 South Waterline (Moneta to Bedford) and the Route 460 East Waterline (New London to Bedford) Extensions by December 31, 2016, then the maximum allowable withdrawal rates in Part I.D.1 will automatically be reduced. For the purposes of this permit, the maximum allowable withdrawal rates will be as listed in Schedule A, Case 3 below.

Schedule A: Maximum Allowable Withdrawal Rates from Smith Mountain Lake.

	Case 1	Case 2	Case 3
Maximum Annual Withdrawal (Million Gallons)	1603	780 ^(a)	730 ^(d)
Maximum Monthly Withdrawal (Million Gallons)	200	98 ^(b)	91.25 ^(e)
Maximum Daily Withdrawal (Million Gallons)	8.67	4.22 ^(c)	2.99 ^(f)

Cases:

1. Prior to December 31, 2016 and/or the Route 122 South (Moneta to Bedford) & Route 460 East (New London to Bedford) Waterline Extensions have both been completed.
2. After December 31, 2016, if the Route 122 South (Moneta to Bedford) Waterline Extension has been completed, but the Route 460 East (New London to Bedford) Waterline Extension has not been completed.
3. After December 31, 2016, if the Route 122 South (Moneta to Bedford) Waterline Extension has not been completed, and the Route 460 East (New London to Bedford) Waterline Extension has not been completed.

Notes:

- a) (Combined Lakes-High Point, WVWA-Westlake and Bedford City service areas average daily demand + 5%) * 366 days/year
 - b) (Combined Lakes-High Point, WVWA-Westlake and Bedford City service areas average daily demand + 5%) * 1.5*30.5 days/month
 - c) (Combined Lakes-High Point, WVWA-Westlake and Bedford City service areas average daily demand + 5%) * 1.8+10%
 - d) Currently permitted maximum annual withdrawal rate
 - e) (730 million gallons/366 days/year) * 1.5*30.5 days/month
 - f) Currently permitted maximum daily withdrawal rate
4. To minimize the impingement and entrainment of fish eggs, larvae and other aquatic life, the maximum through screen intake velocity shall not exceed 0.25 feet per second and the intake screens shall be designed so that the screen openings are not wider than one millimeter.
 5. The location of the intake structure shall be clearly marked to avoid a hazard to boaters and other recreational users of Smith Mountain Lake

6. The permittee shall meter withdrawals from Smith Mountain Lake on a daily basis using flow totalizer technology to confirm that the withdrawals are in compliance with special conditions of this permit. Such meters shall produce volume determinations within plus or minus 10% of actual flows. A defective meter or other device must be repaired or replaced within 30 days. A defective meter is not grounds for not reporting the withdrawals. During any period when a meter is defective, generally accepted engineering practice shall be used to estimate withdrawals and the period during which the meter was defective must be clearly identified in the report.
7. The permittee shall meter the daily flow of water sent from Smith Mountain Lake to the Bedford City service area as soon as the Route 122 South Waterline (Moneta to Bedford) Extension is constructed and operational. For each day that water is sent, the permittee shall monitor and record the date and the volume of water sent that day. The permittee shall make the records available to DEQ within 96 hours of receiving a request for those records
8. The permittee shall meter the daily flow of water sent from Smith Mountain Lake to the Forest service area or for use within the Bedford City service area as soon as the Route 460 East Waterline (New London to Bedford) Extension is constructed and operational. For each day that water is sent, the permittee shall monitor and record the date and the volume of water sent that day. The permittee shall make the records available to DEQ within 96 hours of receiving a request for those records
9. The permittee shall meter the daily flow of water purchased from the City of Lynchburg for use within the Forest service area or for use within the Bedford City service area. For each day that water is purchased, the permittee shall monitor and record the date and the volume of water purchased that day. The permittee shall make the records available to DEQ within 96 hours of receiving a request for those records.
10. When a drought emergency is declared by the Commonwealth of Virginia in the Bedford or Franklin County portion of the Roanoke River Drought Evaluation Region, or by Bedford or Franklin Counties in accordance with either County's Drought Management Ordinance, the permittee shall implement either the provisions directed by the Commonwealth, the declaring County's Drought Management Ordinance or the mandatory conservation measures, as detailed in Attachment A of this permit, whichever is most restrictive. The permittee shall be responsible for determining when drought emergencies are declared. DEQ may require documentation that mandatory conservation measures were implemented during declared drought emergencies.
11. Water withdrawal monitoring and reporting activities shall comply with this section, Part I.C, and Part II. All records and information that result from the monitoring and reporting activities required by this permit, including any records of maintenance activities to the withdrawal system, shall be retained for the life of the permit. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or as requested by the State Water Control Board.

12. For each day that water is withdrawn, the permittee shall monitor and record the date and the volume of water withdrawn that day. The permittee shall retain those records in accordance with General Condition G.3. All permittees whose average daily withdrawal during any single month exceeds 10,000 gallons per day, the water withdrawals shall be reported to DEQ by January 31st of the next year, as required under State Water Control Board (SWCB) Water Withdrawal Reporting Regulation (9 VAC 25-200 et seq.). The annual monitoring report shall contain the following information: the permittee's name and address, the sources and locations of water withdrawal, the cumulative volume of water withdrawn each month of the calendar year, the maximum day withdrawal and the month in which it occurred, and the method of withdrawal measurement. For permittees subject to the Virginia Department of Health (VDH) Waterworks Regulations, the annual reports to DEQ may include, as an alternative, the source and location of water withdrawals, the type of use for the water withdrawn, and reference to the reports filed with VDH that contain the monthly withdrawal data and maximum day withdrawal data.
13. Whenever a Trigger 3 drought event is declared at Appalachian Power Company's Smith Mountain Project, as defined within the Water Management Plan portion of that Project's Federal Energy Regulatory Commission (FERC) license P-2210, the permittee must initiate conservation measures as listed below:
 - a. Review and be prepared to implement Drought Response and Contingency Plans at the appropriate time.
 - b. Participate, as appropriate, in regional and local coordination for the management of water resources.
 - c. Stay informed on drought conditions and advisories
 - d. Participate, as appropriate, in regional and local coordination for the management of water resources.
 - e. Stay informed on drought conditions and advisories
 - f. Project water needs and available water supply for a ninety-day period from the declaration of the Trigger 3 event
 - g. Assess vulnerability to the drought conditions and adjust water usage to prolong available supply.
 - h. Inspect water delivery system components

It is the permittee's responsibility to coordinate with Appalachian Power Company regarding the initiation and cessation of Trigger 3 drought events.

Attachment A- Water Conservation**Mandatory Non-essential Water Use Restrictions**

The following non-essential water uses will be prohibited during periods of declared drought emergencies. Please note the exceptions that follow each prohibited use. These prohibitions and exceptions will apply to uses from all sources of water and will only be effective when the Governor of Virginia or the Virginia Drought coordinator declares a Drought Emergency. Water use restrictions shall not apply to the agricultural production of food or fiber, the maintenance of livestock including poultry, nor the commercial production of plant materials so long as best management practices are applied to assure the minimum amount of water is utilized.

Unrestricted irrigation of lawns is prohibited.

- Newly sodded and seeded areas may be irrigated to establish cover on bare ground at the minimum rate necessary for no more than a period of 60 days. . Irrigation rates may not exceed one inch of applied water in any 7-day period.
- Gardens, bedding plants, trees, shrubs and other landscape materials may be watered with hand held containers, hand held hoses equipped with an automatic shutoff device, sprinklers or other automated watering devices at the minimum rate necessary but in no case more frequently than twice per week. Irrigation should not occur during the heat of the day.
- All allowed lawn irrigation must be applied in a manner to assure that no runoff, puddling or excessive watering occurs.
- Irrigation systems may be tested after installation, routine maintenance or repair for no more than ten minutes per zone.

Unrestricted irrigation of athletic fields is prohibited.

- Athletic fields may be irrigated between the hours of 9:00 p.m. and 10:00 a.m. at a rate not to exceed one inch per application or more than a total of one inch in multiple applications during any ten-day period. All irrigation water must fall on playing surfaces with no outlying areas receiving irrigation water directly from irrigation heads.
- Localized dry areas that show signs of drought stress and wilt (curled leaves, foot-printing, purpling) may be syringed by the application of water for a cumulative time not to exceed fifteen minutes during any twenty four hour period. Syringing may be accomplished with an automated irrigation system or with a hand held hose equipped with an automatic shutoff device at the minimum rate necessary.
- Athletic fields may be irrigated between the hours of 9:00 p.m. and 10:00 a.m. during necessary overseeding, sprigging or resodding operations at the minimum rate necessary for a period that does not exceed 60 days. Irrigation rates during this restoration period may not exceed one inch of applied water in any seven-day period. Syringing is permitted during signs of drought stress and wilt (curled leaves, foot-printing, purpling).
- All allowed athletic field irrigation must be applied in a manner to assure that no runoff, puddling or excessive watering occurs.
- Irrigation is prohibited on athletic fields that are not scheduled for use within the next 120-day period.

- Water may be used for the daily maintenance of pitching mounds, home plate areas and base areas with the use of hand held containers or hand held hoses equipped with an automatic shutoff device at the minimum rate necessary.
- Skinned infield areas may utilize water to control dust and improve playing surface conditions utilizing hand held containers or hand held hoses equipped with an automatic shutoff device at the minimum rate necessary no earlier than two hours prior to official game time.

Washing paved surfaces such as streets, roads, sidewalks, driveways, garages, parking areas, tennis courts, and patios is prohibited.

- Driveways and roadways may be pre-washed in preparation for recoating and sealing.
- Tennis courts composed of clay or similar materials may be wetted by means of a hand-held hose equipped with an automatic shutoff device at the minimum rate necessary for maintenance. Automatic wetting systems may be used between the hours of 9:00 p.m. and 10:00 a.m. at the minimum rate necessary.
- Public eating and drinking areas may be washed using the minimum amount of water required to assure sanitation and public health.
- Water may be used at the minimum rate necessary to maintain effective dust control during the construction of highways and roads.

Use of water for washing or cleaning of mobile equipment including automobiles, trucks, trailers and boats is prohibited.

- Mobile equipment may be washed using hand held containers or hand held hoses equipped with automatic shutoff devices provided that no mobile equipment is washed more than once per calendar month and the minimum amount of water is utilized.
- Construction, emergency or public transportation vehicles may be washed as necessary to preserve the proper functioning and safe operation of the vehicle.
- Mobile equipment may be washed at car washes that utilize reclaimed water as part of the wash process or reduce water consumption by at least 10% when compared to a similar period when water use restrictions were not in effect.
- Automobile dealers may wash cars that are in inventory no more than once per week utilizing hand held containers and hoses equipped with automatic shutoff devices, automated equipment that utilizes reclaimed water as part of the wash process, or automated equipment where water consumption is reduced by at least 10% when compared to a similar period when water use restrictions were not in effect.
- Automobile rental agencies may wash cars no more than once per week utilizing hand held containers and hoses equipped with automatic shutoff devices, automated equipment that utilizes reclaimed water as part of the wash process, or automated equipment where water consumption is reduced by at least 10% when compared to a similar period when water use restrictions were not in effect.
- Marine engines may be flushed with water for a period that does not exceed 5 minutes after each use.

Use of water for the operation of ornamental fountains, artificial waterfalls, misting machines, and reflecting pools is prohibited.

- Fountains and other means of aeration necessary to support aquatic life are permitted.

Use of water to fill and top off outdoor swimming pools is prohibited.

- Newly built or repaired pools may be filled to protect their structural integrity.
- Outdoor pools operated by commercial ventures, community associations, recreation associations, and similar institutions open to the public may be refilled as long as:
 - Levels are maintained at mid-skimmer depth or lower,
 - Any visible leaks are immediately repaired,
 - Backwashing occurs only when necessary to assure proper filter operation,
 - Deck areas are washed no more than once per calendar month (except where chemical spills or other health hazards occur),
 - All water features (other than slides) that increase losses due to evaporation are eliminated, and
 - Slides are turned off when the pool is not in operation.
- Swimming pools operated by health care facilities used in relation to patient care and rehabilitation may be filled or topped off.
- Indoor pools may be filled or topped off.
- Residential swimming pools may be filled only to protect structural integrity, public welfare, safety and health and may not be filled to allow the continued operation of such pools.

Water may be served in restaurants, clubs, or eating-places only at the request of customers.