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PUBLIC SERVICE
COMMISSION

CASE NO. 2014-_____

PREFILED TESTIMONY

EXHIBITS H, I AND J

COMMONWEALTH OF KENTUCKY

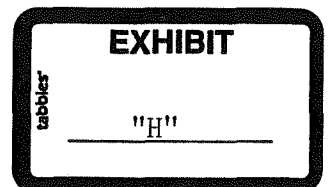
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF JESSAMINE-SOUTH ELKHORN)
WATER DISTRICT FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY TO)
CONSTRUCT AND FINANCE A WATERWORKS) CASE NO 2014- _____
IMPROVEMENT PROJECT PURSUANT TO KRS)
278.020 AND 278.300)

DIRECT TESTIMONY OF JOHN G. HORNE, P.E.

March 5, 2014



1 **Please state your name and business address.**

2 John G. Horne
3 216 South Main Street
4 Nicholasville, KY 40356

5 **By whom are you employed and in what capacity?**

6 President and Founder – Horne Engineering, Inc.

7 **Have you previously testified before this Commission?**

8 Yes

9 **Please state your educational and professional background.**

10 Received a BS in Civil Engineering from the University of Kentucky, 1963
11 Licensed Professional Engineer and Land Surveyor – Commonwealth of
12 Kentucky

13 **What is your past experience with Jessamine-South Elkhorn Water District**
14 **(“JSEWD”), the Applicant in this proceeding?**

15 Have served as consulting Engineer to the District for the past 40-some years.

16 **What is the purpose of your testimony in this proceeding?**

17 To provide engineering testimony regarding Jessamine-South Elkhorn Water
18 District’s application for a CPCN to construct an elevated storage tank on property it
19 owns located near Catnip Hill Pike.

20 **Please provide an overview of JSEWD’s Northwest service area.**

21 The Jessamine-South Elkhorn Water District provides potable water service to
22 two (2) separate areas of Jessamine County, northwest and southeast. The
23 Northwest Service Area contains the core of the original District boundary, with
24 the first pipe-up occurring in 1972. The area is essentially the northwesterly

1 quadrant of Jessamine County, bordered on the west by Woodford County, north
2 by Fayette County, east along a line 1.5 miles west of US-27 and southerly
3 generally by the City of Wilmore.

4 Almost all of the residential growth of Jessamine County, outside the corporate
5 limits of Nicholasville has occurred in the Northwest Service Area, beginning in
6 the mid 1970's. This growth consists almost entirely of high value homes, some
7 of which are multimillion dollar structures. During the 1980's and 1990's, there
8 was significant residential and commercial development near the Harrodsburg
9 Road/Fayette County area. The District has grown from an initial customer base
10 of 272 in 1972 to approximately 2,350 in 2014.

11 **Please briefly describe the events that led JSEWD to plan to construct a new water**
12 **storage tank for its Northwest service territory.**

13 The accelerated residential growth of the Northwest area, especially with high-
14 end homes and their resultant high volume use of water began to exceed the
15 storage capacity of the District's system, which was constructed in the 1990's. In
16 the early 2000's, the District began to consider the need for additional storage and
17 began a search for a tank site. Also, the reconstruction of US-68 (Harrodsburg
18 Road) required relocation of the existing booster pump station and a consolidation
19 of parallel line extensions that had evolved with various residential developments.
20 This replacement construction was located and sized in consideration with the
21 proposed future storage. The District commissioned a Capital Improvement
22 Program investigation in 2006 that further supported the need for construction of
23 additional storage, which was further demonstrated in the recent drought years
24 when peak day demands approached two million gallons.

1 **Have you analyzed the need for a reservation of capacity for fire protection in**
2 **JSEWD's Northwest service area? If so, what impact does this analysis have on the**
3 **need for additional storage capacity for JSEWD's Northwest service area?**

4 Yes. Accepted engineering practices for determining volume of required storage,
5 stipulates that along with equalization and emergency storage that the volume
6 requirement of fire protection be included. The generally accepted method of
7 determining this volume is to employ the ISO method to determine the required
8 volume for extinguishment of the various structure classifications in the District's
9 service area. The required storage is then established as the largest required
10 volume. Consequently, calculations were conducted on a cross-section of thirteen
11 (13) structures, consisting of church, office, retail, historical, stables, and
12 residential. Of the thirteen, three (3) structures have a required fire suppression
13 volume of 540,000 gallons, which is the required fire protection volume.

14 **What other factors, if any, have you analyzed with respect to JSEWD's**
15 **current and projected storage needs, and what impact if any do such other**
16 **factors have on JSEWD's storage needs?** I completed an analysis of the
17 emergency volume requirement and concluded that 25% of ADD [Average Daily
18 Demand] was sufficient, resulting in a need for emergency volume of 185,915
19 gallons. I also took into consideration, leak reduction and conservation measures
20 such as fixture retro-fit and irrigation reduction to determine if these factors could
21 be accomplished to offset required volume. The resultant conclusion was that
22 they had already been accomplished or were not applicable.

23 **As a result of your analyses, what is your opinion as to JSEWD's need for the**
24 **requested 750,000 gallon water storage tank?**

1 The District is at a stage that it is critical that additional storage be provided and
 2 the 750,000 gallon tank is the minimum size tank that should be considered.

3 **What is the projected cost for each of the two alternatives, and how will the project**
 4 **be financed?**

5 Financing for the proposed tank is to be provided by an existing one million dollar
 6 water legislative grant (229N-2008) and three (3) sewer legislative grants (355N-
 7 2007, 356N-2007, and 357N-2007) totaling \$440,000 which the District has
 8 requested to be reassigned to the Catnip Hill Tank Project. The balance required
 9 is to be furnished via a KRWFC loan.

10 Estimated cost for the 500,000 gallon tank and the 750,000 gallon tank are as
 11 follows:

CONSTRUCTION		
Classification	750,00 gallon tank	500,000 gallon tank
Administration/Legal	\$25,000	\$25,000
Engineering Design	\$125,000	\$110,000
Engineering Inspections	\$85,000	\$70,000
Construction Engineering	\$45,000	\$40,000
Construction (site)	\$160,000	\$160,000
Construction (tank)	\$1,350,000	\$1,025,000
KIA Administration	\$35,000	\$35,000
Contingencies	<u>\$175,000</u>	<u>\$140,000</u>
TOTAL	\$2,000,000	\$1,605,000
FUNDING		
Legislative Grant	750,000 gal. tank	500,000 gallon tank
229N-2008 \$1,000,000		
355N-2007 \$ 110,000		
356N-2007 \$ 180,000		
357N-2007 <u>\$ 150,000</u>		
	\$1,440,000	\$1,440,000
Required KRWFC Bond	\$560,000	\$165,000

1 **In Case No. 2012-00470, the Commission found that JSEWD had not sufficiently**
2 **addressed the possible alternative of relying on Kentucky-American Water**
3 **Company (“KAW”) as a source of water storage. Please state your opinion and the**
4 **reasons therefore, as to whether JSEWD should rely on KAW for water storage**
5 **capacity as a superior alternative to constructing new storage on its system.**

6 In my opinion, utilizing Kentucky-American Water Company (“KAW”) water
7 storage capacity as an alternate to the District constructing storage within its own
8 system is neither prudent nor feasible due to the following reasons.

- 9 a. KAW currently operates under a deviation from the PSC rule of a
10 minimum of one-day annual average day demand storage.
- 11 b. Elevated storage in a small system is preferable to pumping
12 because it (1) minimizes hydraulic transients; (2) equalizes
13 demands; (3) provides instant availability; (4) allows delivery
14 compatibility from multiple directions due to placement on far side
15 of demand; (5) provides emergency protection subsequent to source
16 failure; and (6) provides first priority to District’s customers
- 17 c. District cannot provide flow necessary to meet fire protection
18 without violating clause contained in KAW Purchase Agreement
19 which limits the gallons per minute rate of flow to the District.
- 20 d. The KAW Purchase Agreement specifically excludes KAW from
21 the obligation of providing sufficient quantities of water for fire
22 extinguishment and requires that the District must provide its own
23 storage for such purpose

1 e. The KAW Purchase Agreement requires the District to construct
 2 its own storage in order to provide adequate service to its
 3 customers.

4 f. The telemetry controls of each system are incompatible.
 5 Consequently it could, at times, require manual operation.

6 There currently are no provisions for assignment of prioritization of water demands.
 7 Consequently, it would be assumed that in cases of emergency or high demands
 8 Kentucky-American Water Company will take priority.

9 **Assuming that the Commission approves one of the alternatives proposed by**
 10 **JSEWD, what additional steps (i.e., permits, final specs and design, finalizing**
 11 **financing) will be required to begin construction on the approved alternative, and**
 12 **what time frame would the District envision for completion of the project?**

13 Following is an outline of steps necessary to construct an elevated storage tank.

Time (weeks)	Task Description
1-6	Amend Project Profile State Clearinghouse FAA Application Preliminary Plans Geotechnical Survey
7-11	Construction Plans Specifications KDOW Application KYTC Application
11-13	KDOW Approval KYTC Approval
13-16	Bid Advertisement Receive Bids
17-24	PSC Approval Bond Issue
25-80	Bid Award Construction

1 **Is it important that this project proceed expeditiously?**

2 With the current pressure of budget balancing and searching for pockets of
3 “unused money” the current legislative grants are coming under increasing
4 pressure to “use it or lose it”, and June 30, 2014 is a target review date. Also, it
5 has been determined that the District is in violation of 807 KAR 10:066, Section
6 4(4) which stipulates that storage must be provided. Upscale housing
7 construction is continuing in the District almost at the same pre-bubble rate.
8 Consequently, the current deficiency of storage is being exacerbated, daily.


9 **Please summarize your recommendations to the Commission:**

10 Based on my review and study of this Storage Analysis, it is my recommendation
11 that the District construct a 750,000 gallon elevated storage tank on the Catnip
12 Hill tract they own, as quickly as possible. Should the PSC fail to approve this
13 request that they approve, at a minimum, a 500,000 gallon elevated tank.

14

1 **VERIFICATION**


2 The undersigned, John G. Horne, P.E., being duly sworn, deposes and says he is Vice President
3 of Horne Engineering, Inc., that he has personal knowledge of the matters set forth in the
4 foregoing responses for which he is the identified witness and that the information contained
5 therein is true and correct to the best of his information, knowledge and belief.

6 
7 _____
8 John G. Horne. P.E.

9 COMMONWEALTH OF KENTUCKY

10 COUNTY OF JESSAMINE, SCT...

11 Acknowledged, subscribed and sworn to me, a Notary Public in and before said County
12 and State by John G. Horne, this the 5th day of March, 2014.

13 
14 _____
15 NOTARY PUBLIC NO. 428218

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18
19
20 **Bes/JSEWD/Forest Hills/Application No. 2/Application/C. Horne Testimony**

COMMONWEALTH OF KENTUCKY

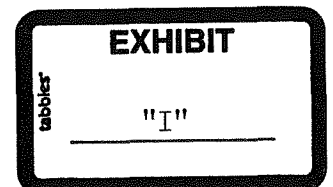
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278.020 AND 278.300)

DIRECT TESTIMONY OF L. CHRISTOPHER HORNE, P.E.

March 5, 2014



1 **Please state your name and business address.**

2 L. Christopher Horne
3 216 South Main Street
4 Nicholasville, KY 40356

5 **By whom are you employed and in what capacity?**

6 Vice President - Horne Engineering, Inc.

7 **Have you previously testified before this Commission?**

8 Yes, in Case No. 2012-00470.

9 **Please state your educational and professional background.**

10 Received a BS in Civil Engineering from the University of Kentucky, 1991
11 Licensed Professional Engineer and Land Surveyor – Commonwealth of Kentucky

12 **What is your past experience with Jessamine-South Elkhorn Water District**
13 **(“JSEWD”), the Applicant in this proceeding?**

14 I have worked at Horne Engineering, Inc. for the past 21 years, during which time I have
15 extensive experience performing technical calculations for water distribution systems, as
16 well as development and maintenance of the District’s hydraulic computer model on
17 KYPIPE.

18 **What is the purpose of your testimony in this proceeding?**

19 To provide technical engineering testimony regarding the proposed elevated water
20 storage tank on Catnip Hill Road.

21 **Please describe the alternative water tanks presented in this Application.**

1 The Storage Analysis submitted with this application includes a calculation of storage
2 requirements for the District based on multiple criteria. Based on methods standard to
3 the industry to size necessary volume for the distribution system, the recommended tank
4 will be a 750,000 gallon elevated storage tank.

5 Based on the PSC Regulations and 2010 Census Projections, the District would need at
6 least a 500,000 gallon tank to meet the minimum PSC Regulation in 2015. However the
7 population projection data indicates that a 500,000 gallon tank will not be adequate to
8 provide capacity by the year 2023. Therefore, a Present Worth Analysis is included in
9 this report to consider construction of a 750,000 gallon tank now versus a 500,000 tank to
10 meet only existing PSC minimums today with an additional 250,000 gallon tank to be
11 constructed eight (8) years into the future.

12 **Have you prepared engineering analyses with respect to the reasonableness and**
13 **adequacy of the proposed 750,000 gallon tank?**

14 Yes.

15 **What analyses have you performed?**

16 Storage requirement analyses have been performed under three (3) criteria.

- 17 a. Based on the standards of the industry which include storage volumes based
18 on: equalization storage, fire flow storage, and emergency storage;
- 19 b. Based on PSC Regulations – 807 KAR 5:066, Section 4(4); and
- 20 c. Based on Future Land Uses which employs data gleaned from the Jessamine
21 County Planning Commission Administrator for future land uses within the
22 District’s boundary.

1 In addition to the above storage requirement calculations, a 72-hour EPS
2 hydraulic model was developed to analyze the proposed tank's effect on the
3 quality of service in the District, and water quality issues.

4 A Present Worth Cost Analysis was also performed for building a 750,000 gallon
5 tank now versus a 500,000 gallon tank now and an additional 250,000 gallon tank
6 in the year 2023.

7 **How do these analyses relate to the reasonableness and adequacy of the proposed**
8 **750,000 gallon tank?**

9 The storage capacity analysis based on standards of the industry indicates that the
10 combination of equalization, fire flow, and emergency storage would require a
11 750,000 gallon tank in order to meet that requirement.

12 The analysis for the storage requirement based on PSC Regulations indicates that
13 a minimum of 750,000 gallons will be necessary in the year 2023 which is eight
14 (8) years from the date that the proposed tank would likely be completed.

15 Storage requirements based on Future Land Uses utilizes the Joint Comprehensive
16 Plan for Jessamine County – City of Nicholasville – City of Wilmore. That plan
17 is a 20-year document that was drafted in 2010 which forecasts out to 2030 (15
18 years after the proposed tank would be constructed). The analysis indicates that
19 15 years after construction of the tank based on future land use projections, the
20 District will be 1,411,089 gallons short of providing the minimum storage
21 required by PSC Regulations.

22 The 72-hour EPS Hydraulic Model indicates that the proposed tank would be

1 beneficial to the performance of the system and that 100% of the tank's volume
2 would be turned over in a 72-hour period.

3 The Present Worth Cost Analysis indicated that there is a cost benefit of almost
4 \$300,000 to building the 750,000 gallon tank now versus building a 500,000
5 gallon tank now and a 250,000 gallon tank 8 years from now.

6 **How are the growth projections provided by Mr. Harper utilized in your analyses?**

7 Mr. Harper's growth projections were utilized to develop projected future
8 demands in order to analyze future volume requirements based on PSC
9 Regulations.

10 **As a result of your analyses, what is your opinion as to JSEWD's need for the**
11 **requested 750,000 gallon water storage tank?**

12 It is undisputed that the District is in need of adding to its existing storage.
13 Considering any of the three (3) methods of calculating the required storage, by
14 the year 2023 the District will be in need of an additional 750,000 gallons in
15 excess of what it currently has. The Present Worth Analysis indicates that it will
16 be of benefit to the District to build the 750,000 gallon tanks now, as opposed to
17 building two (2) tanks in order to meet that need. Therefore, it is my opinion that
18 construction of a 750,000 gallon elevated storage tank is the best alternative.

19 **JSEWD has also requested, in the alternative to the 750,000 gallon tank, approval of**
20 **a 500,000 gallon tank. Have you performed analyses similar to those performed for**
21 **the 750,000 gallon tank for the proposed 500,000 gallon tank? Please describe such**
22 **analyses and discuss the extent to which the analyses differ from the 750,000 gallon**
23 **analyses, either in methodology or result.**

1 Much of the analyses performed is based on a required storage and volume and
2 not a particular size tank. Rather, the required volume was identified and a tank
3 size was then recommended. A hydraulic model however was performed with a
4 particular size tank input into the model. The first tank input into the model was a
5 750,000 gallon tank and the results of the analysis show that 100% of the tank is
6 turned over during a 72-hour period. Since adequate turnover occurred using a
7 750,000 gallon tank, a model including the 500,000 gallon tank was not
8 developed. Attached as a part of my testimony is my hydraulic analysis.

9 The Present Worth Analysis compares the cost of building one 750,000 gallon
10 tank versus a 500,000 gallon tank and a 250,000 gallon tank eight (8) years into
11 the future.

12 **As a result of your analyses, what is your opinion as to JSEWD's need for the**
13 **requested 500,000 gallon water tank?**

14 It is certain that additional storage on the District's system is necessary, to that
15 extent; a 500,000 gallon tank would be beneficial. However, I do not believe it is
16 the best solution for the long term.

17 **In your opinion and based on your analyses, which alternative would best meet**
18 **JSEWD's system needs and provide the best alternative for assuring that current**
19 **and future customer demands are met for the Northwest service area? Please**
20 **explain.**

21 Based on the three (3) methods for calculating required storage, it is clear that
22 additional storage is necessary now and that at least 750,000 gallons will be
23 necessary (based on all three methodologies) within eight (8) years. The Present

1 Worth Analysis indicates that building a 750,000 gallon tank now would be
2 preferred over building one 500,000 gallon tank now and a 250,000 gallon tank in
3 the future. This is because there is an advantage in economy of scale in building a
4 larger tank than to build two smaller tanks. So it appears that the best alternative
5 for assuring that current and future customer demands are met would be to build
6 the 750,000 gallon tank now. It would also seem to be the most responsible
7 alternative with respect to the implications on the rate payers.

8 **In the event that the Commission should determine that the need for the proposed**
9 **750,000 gallon tank has not been established, should the Commission then approve**
10 **construction of the 500,000 gallon tank? Please explain.**

11 While a 750,000 gallon tank is the preferred option, a 500,000 gallon tank would
12 certainly help the District in its efforts to provide equalization, fire flow and
13 emergency storage to its customers. While the analyses indicates that it may not
14 be the most economical way to provide for future needs, it certainly is preferred
15 over a do nothing approach.

16 **What would be the impact on JSEWD's Northwest service area and JSEWD's**
17 **present and future customers should the PSC not approve one of the alternatives**
18 **proposed by JSEWD?**

19 As time goes by, the negative effects of each coming drought seems worse than
20 the one before it. This manifests itself with inefficient operation of the District's
21 system. It also puts the District in a precarious situation with regard to its ability
22 to provide fire flows and necessary storage during times of emergency.

23 Jessamine-South Elkhorn Water District is located in a geographical area that is

1 forecasted to experience tremendous growth according to census projections.

2 Therefore, the effects of having inadequate storage will only worsen with time.

3 **The Commission noted in Case No. 2012-00470 that JSEWD has not to date been**
4 **subject to complaints or water outages. How has the District successfully managed**
5 **to meet its demands to date, and can the District continue to meet current and**
6 **projected demands without additional storage capacity?**

7 During times of high demands created by dry periods which occur during spring
8 summer and fall, the District's ability to equalize its flow and provide adequate
9 storage has become increasingly more difficult. The use of a lag pump is a daily
10 occurrence for extended hours during periods such as these. This is a very
11 inefficient way of providing storage. The District, so far, has been able to provide
12 basic services in most of these circumstances and finds itself very fortunate that
13 there has not been an event to create great stress on the system, such as a natural
14 disaster, equipment failure, or major line break, especially during one of these
15 periods of great demand.

16 **Please summarize your recommendations to the Commission:**

17 Based on my analyses, it is my opinion that the Jessamine-South Elkhorn Water
18 District is in need of additional storage as soon as possible. Based on the fact that
19 750,000 gallons is required now based on storage calculations standard to the
20 industry and that it is required, by any measure, within no more than eight (8) years,
21 and based on the Present Worth Analysis, the 750,000 gallon tank is the preferred
22 alternative. Should PSC not find in favor of construction of the 750,000 gallon
23 tank, then the 500,000 gallon tank at a minimum should be approved.

1 **VERIFICATION**

2 The undersigned, L. Christopher Horne, P.E., being duly sworn, deposes and says he is Vice
3 President of Horne Engineering, Inc., that he has personal knowledge of the matters set forth in
4 the foregoing responses for which he is the identified witness and that the information contained
5 therein is true and correct to the best of his information, knowledge and belief.

6
7 L. CHRISTOPHER HORNE

8 L. Christopher Horne, P.E.

9 COMMONWEALTH OF KENTUCKY

10 COUNTY OF JESSAMINE, SCT...

11 Acknowledged, subscribed and sworn to me, a Notary Public in and before said County
12 and State by L. Christopher Horne, PE, PLS, this the 5th day of March, 2014.

13 Judith I Thacker 428218

14 NOTARY PUBLIC NO.
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20 **Bes/JSEWD/Forest Hills/Application No. 2/Application/C. Horne Testimony**

HYDRAULIC ANALYSIS

PROPOSED ELEVATED STORAGE TANK
CATNIP HILL ROAD
750,000 GALLON ALTERNATIVE
JESSAMINE COUNTY, KENTUCKY

JESSAMINE-SOUTH ELKHORN WATER DISTRICT
NORTHWEST DISTRIBUTION SYSTEM

February 2014

Prepared by:
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Flow Summaries - Clays Mill Road Master Meters #1 & #2

Chart Used to Determine Operating Conditions

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Data Summary

Pump Report

Tank Report

Maximum/Minimum Report

SUMMARY

The hydraulic analysis included in this report includes a 72-hour extended period simulation (EPS) for the Jessamine-South Elkhorn Water District - Northwest Distribution System. This model includes a proposed 750,000 gallon elevated storage tank located on Catnip Hill Road, added to the existing District infrastructure. The duration was selected in order to demonstrate the turnover in the proposed tank for a 72-hour period.

Total System Demand

The demand values that are commonly used in the Jessamine-South Elkhorn Water District (JSEWD) model is considered to be conservative when analyzing the system for new users, extensions, and fire flow situations. That is to say that the demand in the model is larger than actual usage. In order to analyze the system for a proposed tank, it is important to get an accurate demand in the model in order to analyze not only the pressures throughout the system and the quality of service, but also the turnover of the tank for water quality purposes. For that reason, the global demand factor was applied to the District's model in order to arrive at an average day demand of 516.43 gpm. This average is based on the average daily demand for the year 2010 per manual meter readings by the District's manager. The year 2010 was selected in this model in order to remain consistent with calculations made for equalization, fire flow, and emergency storage in sizing the proposed tank. The most recent census data available is for the year 2010 which provides a baseline for projecting future populations and therefore, future demands on the system.

The actual usage totals for January 2010 through December 2010 were gleaned from the two meters at the Clays Mill Road booster pump station and the two meters at the Keene Road master meter which constitutes 100% of the usage for the Northwest Distribution System. The totals were as follows:

Clays Mill Road Meter #1	246,484,500 gallons
Clays Mill Road Meter #2	4,460,000 gallons
Keene Road #1	389,925 gallons
Keene Road #2	<u>340,575</u> gallons
Total Usage	271,650,715 gallons

The flow summaries for the Clays Mill Road Meters #1 & #2 are included in this report. The Keene Road master meter is not served by telemetry. Therefore, those readings are taken manually. These readings are minimal therefore only the totals are shown in this report.

Operating Conditions Delivered to the Booster Pump Station

Actual operating conditions or hydraulic grade lines on the suction side of the booster pump station was observed from telemetry results over a variable period of time. The operating conditions vary a great deal based on the fact that there is a booster pump on the Kentucky-American Water Company system next to the Jessamine-South Elkhorn Water District booster pump. The Kentucky-American Water Company pump kicks on at various times during the day in order to boost pressures in that area of its system. It pumps directly out of two large ground storage tanks. Therefore, because of the pump, the hydraulic grade line for the suction side of the Jessamine-South Elkhorn Water District pump can vary from 1140 (with rare spikes below that) up to 1180 (with rare spikes above that). February 9, 2011 is a representative sample of what is expected of from the hydraulic grade line provided to the Jessamine-South Elkhorn Water District pump station. Therefore, the hydraulic grade line for that date was extrapolated to a 72-hour period and used for this report. A copy of the telemetry chart used to extract this data is attached to this report.

It should be noted that operating conditions can, and do vary based on the operation decisions made by Kentucky-American Water Company. Therefore, only a representative estimate of operating conditions must be provided, in lieu of actual conditions. It should also be noted that the chart reflects operating conditions when the Jessamine-South Elkhorn Water District booster pump turns on. Data during that period was not used in the model, since the model introduces the pumps, thereby creating the drop in suction and the rise in discharge head.

Demand Pattern

The demand pattern for the 72-hour period in this analysis is shown below.

Demand factors used are as follows:

0.	0.10	4.	0.50	8.	1.10	12.	1.10	16.	1.25	20.	1.25
1.	0.10	5.	1.25	9.	0.75	13.	1.00	17.	2.00	21.	1.25
2.	0.10	6.	2.00	10.	0.75	14.	0.50	18.	2.00	22.	1.00
3.	0.25	7.	1.75	11.	1.50	15.	0.75	19.	1.50	23.	0.25

This demand pattern was repeated twice more in order to complete the 72-hour period

Telemetry Controls.

Controlling this model has the pumps operated by transducer at the base of the proposed 750,000 gallon tank (Tank C). The pump on level is set at 1157; the pump off is set 1-foot

below the overflow at 1170. It is customary to have the pump off level set some distance below the overflow in order to avoid a water loss through the overflow pipe in the event that the hydraulic grade continues to rise after the pump has kicked off.

A graph depicting the stage of each of the three elevated storage tanks is included in this report titled, "Elevated Storage Tanks A, B, and C". Examination of the chart reveals that all three tanks discharge a volume greater than 100% of its capacity in the 72-hour period.

Tank	Volume of Tank (gallons)	Volume Drained from Tank (gallons)
Tank A	50,000	115,056
Tank B	500,000	603,636
Tank C	750,000	797,325

Bound in this report are the following: Data Summary (given in full), Pump Report, Tank Report, and Maximum/Minimum Report (includes the maximum and minimum pressure for each node in the system over the 72-hour period). A copy of all 72-hours with output for selected nodes is bound separately and is included as a part of this report.

NODE MAP

JESSAMINE SOUTH ELKHORN
WATER DISTRICT

N.W. DISTRIBUTION SYSTEM

FLOW SUMMARY JAN 2010 - DEC 2010
 CLAYS MILL RD METER #1
 TAKEN FROM JSEWD TELEMETRY

Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
1/1/2010	5.3	5.4	0	0	0	0	24	0	0	624000	0	1090	946.33
1/2/2010	3.8	5.4	0	0	0	0	24	0	0	555000	0	1110	992.93
1/3/2010	5.1	6.5	0	0	0	0	24	0	0	693000	0	1110	986.41
1/4/2010	6.6	3.2	0	0	0	0	24	0	0	580000	0	1110	975.86
1/5/2010	6.1	5.4	0	0	0	0	24	0	0	717000	0	1100	1024.48
1/6/2010	4.9	5.7	0	0	0	0	24	0	0	659000	0	1120	1009.44
1/7/2010	3.4	6.9	0	0	0	0	24	0	0	610000	0	1110	990.49
1/8/2010	5	6.4	0	0	0	0	24	0	0	693000	0	1150	984.14
1/9/2010	5.5	4.4	0	0	0	0	24	0	0	566000	0	1080	949.49
1/10/2010	6	5.8	0	0	0	0	24	0	0	722000	0	1110	998.58
1/11/2010	4.7	5.4	0	0	0	0	24	0	0	627000	0	1110	1013.63
1/12/2010	3.1	7.3	0	0	0	0	24	0	0	611000	0	1160	978.48
1/13/2010	5.1	6.9	0	0	0	0	24	0	0	722000	0	1080	966.59
1/14/2010	6.2	5.7	0	0	0	0	24	0	0	700000	0	1090	960.92
1/15/2010	7.9	4.2	0	0	0	0	24	0	0	699000	0	1030	963.55
1/16/2010	5.1	6.9	0	0	0	0	24	0	0	721000	0	1100	989.58
1/17/2010	5	7.1	0	0	0	0	24	0	0	730000	0	1130	998.77
1/18/2010	5.9	6.9	0	0	0	0	24	0	0	766000	0	1120	970.92
1/19/2010	7.1	3.5	0	0	0	0	24	0	0	642000	0	1100	989.63
1/20/2010	6.3	5.8	0	0	0	0	24	0	0	729000	0	1100	1000.58
1/21/2010	4.2	6.2	0	0	0	0	24	0	0	627000	0	1160	988.56
1/22/2010	3.9	7.4	0	0	0	0	24	0	0	667000	0	1140	976.49
1/23/2010	5.4	5.3	0	0	0	0	24	0	0	643000	0	1110	989.63
1/24/2010	6.4	5.8	0	0	0	0	24	0	0	727000	0	1110	989.75
1/25/2010	4.7	5.4	0	0	0	0	24	0	0	611000	0	1100	981.49
1/26/2010	2.8	6.6	0	0	0	0	24	0	0	560000	0	1170	985.11
1/27/2010	5.7	2.7	0	0	0	0	24	0	0	502000	0	1090	982.86
1/28/2010	4.7	5.2	0	0	0	0	24	0	0	595000	0	1100	1001.21
1/29/2010	2.8	6.2	0	0	0	0	24	0	0	528000	0	1080	985.78
1/30/2010	5.2	3.8	0	0	0	0	24	0	0	536000	0	1110	954.46
1/31/2010	5.9	5.4	0	0	0	0	24	0	0	694000	0	1090	1000.35
2/1/2010	2.5	7.1	0	0	0	0	24	0	0	566000	0	1080	951.73
2/2/2010	5.2	4.7	0	0	0	0	24	0	0	586000	0	1080	966.1
2/3/2010	6.1	3.5	0	0	0	0	24	0	0	594000	0	1090	1018.35
2/4/2010	3.7	5.4	0	0	0	0	24	0	0	535000	0	1150	963.85
2/5/2010	3.4	5.8	0	0	0	0	24	0	0	555000	0	1140	971.17
2/6/2010	5.4	3	0	0	0	0	24	0	0	494000	0	1090	977.5
2/7/2010	4.1	5.2	0	0	0	0	24	0	0	558000	0	1100	980.21
2/8/2010	3.8	6	0	0	0	0	24	0	0	588000	0	1080	976.1
2/9/2010	5.6	2.8	0	0	0	0	24	0	0	500000	0	1080	967.29
2/10/2010	4.1	5.3	0	0	0	0	24	0	0	556000	0	1090	964.26
2/11/2010	3.4	6.2	0	0	0	0	24	0	0	566000	0	1040	990.1
2/12/2010	6.2	2.7	0	0	0	0	24	0	0	511000	0	1070	948.65
2/13/2010	5.3	5.5	0	0	0	0	24	0	0	656000	0	1110	1002.69
2/14/2010	3.1	5.9	0	0	0	0	24	0	0	522000	0	1100	968.11
2/15/2010	4.8	5.8	0	0	0	0	24	0	0	643000	0	1090	987.01
2/16/2010	5.7	2.9	0	0	0	0	24	0	0	504000	0	1100	978.6
2/17/2010	5.4	5.1	0	0	0	0	24	0	0	646000	0	1150	999.43
2/18/2010	4	5.2	0	0	0	0	24	0	0	564000	0	1100	1001.96
2/19/2010	3.6	6.6	0	0	0	0	24	0	0	596000	0	1070	963.01
2/20/2010	6.1	3.6	0	0	0	0	24	0	0	550000	0	1070	949.28
2/21/2010	5.3	5.7	0	0	0	0	24	0	0	675000	0	1090	997.14
2/22/2010	3	6.8	0	0	0	0	24	0	0	581000	0	1100	983.84
2/23/2010	6.1	2.6	0	0	0	0	24	0	0	507000	0	1100	979.77
2/24/2010	5.3	4.8	0	0	0	0	24	0	0	619000	0	1110	999.41
2/25/2010	2.4	5.8	0	0	0	0	24	0	0	499000	0	1130	991.2
2/26/2010	4.9	5.5	0	0	0	0	24	0	0	619000	0	1090	973.87
2/27/2010	6.2	3.2	0	0	0	0	24	0	0	527000	0	1070	914.21
2/28/2010	5.4	5.2	0	0	0	0	24	0	0	647000	0	1140	1015
3/1/2010	2.9	6.6	0	0	0	0	24	0	0	561000	0	1060	979.37
3/2/2010	5.3	2.6	0	0	0	0	24	0	0	479000	0	1080	1002.28
3/3/2010	5.5	4.9	0	0	0	0	24	0	0	628000	0	1110	1011.64
3/4/2010	2.4	6.2	0	0	0	0	24	0	0	517000	0	1220	959.89
3/5/2010	4.7	6	0	0	0	0	24	0	0	636000	0	1110	968.35
3/6/2010	5.4	3.5	0	0	0	0	24	0	0	537000	0	1090	990.34
3/7/2010	6	5.5	0	0	0	0	24	0	0	702000	0	1090	1005.69
3/8/2010	2.5	6.6	0	0	0	0	24	0	0	206000	0	1020	973.43
3/9/2010	6.1	2.7	0	0	0	0	24	0	0	0	0	0	0
3/10/2010	3.3	6.8	0	0	0	0	24	0	0	0	0	0	0

Date	Runtimes (hours)								Total	Flow		Flow Rate Average
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High	
3/11/2010	5.5	3	0	0	0	0	24	0	0	0	0	0
3/12/2010	2.3	6.3	0	0	0	0	24	0	0	309000	0	1080 944.63
3/13/2010	5.2	2.9	0	0	0	0	24	0	0	475000	0	1160 944.58
3/14/2010	4.4	5.2	0	0	0	0	24	0	0	577000	0	1120 973.2
3/15/2010	3	5.6	0	0	0	0	24	0	0	523000	0	1090 984.6
3/16/2010	6	2.3	0	0	0	0	24	0	0	505000	0	1090 992.02
3/17/2010	2.3	6.1	0	0	0	0	24	0	0	502000	0	1170 974.12
3/18/2010	5.2	4.4	0	0	0	0	24	0	0	564000	0	1120 957.63
3/19/2010	6	3.6	0	0	0	0	24	0	0	568000	0	1110 983.71
3/20/2010	3	6.1	0	0	0	0	24	0	0	551000	0	1120 1003.85
3/21/2010	5	6.2	0	0	0	0	24	0	0	676000	0	1120 991.15
3/22/2010	5.5	2.5	0	0	0	0	24	0	0	501000	0	1100 1036.13
3/23/2010	5	4.2	0	0	0	0	24	0	0	524000	0	1140 937.96
3/24/2010	2.3	6.1	0	0	0	0	24	0	0	515000	0	1140 986.74
3/25/2010	5.4	2.4	0	0	0	0	24	0	0	493000	0	1100 1028.99
3/26/2010	2.2	5.7	0	0	0	0	24	0	0	468000	0	1170 974
3/27/2010	5.8	3	0	0	0	0	24	0	0	491000	0	1020 903.93
3/28/2010	4.3	4.9	0	0	0	0	24	0	0	550000	0	1120 991.74
3/29/2010	3.1	5.2	0	0	0	0	24	0	0	496000	0	1130 986.79
3/30/2010	5	2.8	0	0	0	0	24	0	0	481000	0	1140 1017.82
3/31/2010	2.8	5.4	0	0	0	0	24	0	0	503000	0	1140 1007.95
4/1/2010	5.4	2.6	0	0	0	0	24	0	0	506000	0	1130 1032.96
4/2/2010	4.9	6.5	0	0	0	0	24	0	0	658000	0	1140 947.02
4/3/2010	3	7.3	0	0	0	0	24	0	0	578000	0	1100 922.21
4/4/2010	5.6	3.9	0	0	0	0	23	0	0	586000	0	1120 1008.13
4/5/2010	2.4	6.8	0	0	0	0	24	0	0	559000	0	1130 971.16
4/6/2010	5.6	3.4	0	0	0	0	24	0	0	535000	0	1110 979.22
4/7/2010	5.8	4.7	0	0	0	0	24	0	0	646000	0	1110 1020.47
4/8/2010	2.3	5.9	0	0	0	0	24	0	0	484000	0	1110 969.27
4/9/2010	5	3.7	0	0	0	0	24	0	0	504000	0	1170 954.48
4/10/2010	5.2	5.7	0	0	0	0	24	0	0	653000	0	1140 995.6
4/11/2010	3	6.8	0	0	0	0	24	0	0	606000	0	1140 1025.61
4/12/2010	7.9	3.7	0	0	0	0	24	0	0	649000	0	1240 916.41
4/13/2010	2.9	8.7	0	0	0	0	24	0	0	661000	0	1140 942.07
4/14/2010	7.7	3.3	0	0	0	0	24	0	0	667000	0	1140 989.1
4/15/2010	6.8	6.4	0	0	0	0	24	0	0	796000	0	1150 996.59
4/16/2010	2.8	7.8	0	0	0	0	24	0	0	631000	0	1140 968.15
4/17/2010	5.5	5.4	0	0	0	0	24	0	0	632000	0	1150 946.79
4/18/2010	2.8	12.9	0	0	0	0	24	0	0	800000	0	1130 834.62
4/19/2010	8.1	4.1	0	0	0	0	24	0	0	725000	0	1150 973.55
4/20/2010	2.7	8.2	0	0	0	0	24	0	0	629000	0	1120 966.7
4/21/2010	5.5	7.7	0	0	0	0	24	0	0	782000	0	1120 979.09
4/22/2010	8.9	3.2	0	0	0	0	24	0	0	742000	0	1140 1008.85
4/23/2010	5.8	5.2	0	0	0	0	24	0	0	686000	0	1120 1010.09
4/24/2010	3.7	5.9	0	0	0	0	24	0	0	582000	0	1150 994.06
4/25/2010	4.2	6.7	0	0	0	0	24	0	0	639000	0	1100 966.64
4/26/2010	5.8	2.9	0	0	0	0	24	0	0	515000	0	1100 986.21
4/27/2010	5.2	5.1	0	0	0	0	24	0	0	618000	0	1130 972.88
4/28/2010	2.6	6.9	0	0	0	0	24	0	0	565000	0	1120 954.74
4/29/2010	4.7	5.7	0	0	0	0	24	0	0	629000	0	1100 968.68
4/30/2010	6.3	3.4	0	0	0	0	24	0	0	575000	0	1130 989.18
5/1/2010	4.9	5.6	0	0	0	0	24	0	0	621000	0	1130 965.05
5/2/2010	2.9	6.1	0	0	0	0	24	0	0	529000	0	1130 970.44
5/3/2010	5	5.8	0	0	0	0	24	0	0	631000	0	1130 953.49
5/4/2010	5.9	3.5	0	0	0	0	24	0	0	585000	0	1120 1019.06
5/5/2010	5.2	5.9	0	0	0	0	24	0	0	669000	0	1160 983.39
5/6/2010	3.2	8.5	0	0	0	0	24	0	0	670000	0	1100 937.71
5/7/2010	6	7.2	0	0	0	0	24	0	0	701000	0	1140 875.15
5/8/2010	2.8	6.2	0	0	0	0	24	0	0	530000	0	1150 941.94
5/9/2010	5.7	6.3	0	0	0	0	24	0	0	652000	0	1120 884.26
5/10/2010	3	11	0	0	0	0	24	0	0	689000	0	1150 805.96
5/11/2010	5.6	7.6	0	0	0	0	24	0	0	678000	0	1080 849.85
5/12/2010	5.5	5.3	0	0	0	0	24	0	0	659000	0	1140 999.72
5/13/2010	2.5	9.2	0	0	0	0	24	0	0	642000	0	1180 902.65
5/14/2010	6.7	5.5	0	0	0	0	24	0	0	668000	0	1130 911.23
5/15/2010	3.5	11.2	0	0	0	0	24	0	0	747000	0	1130 841.16
5/16/2010	5.2	6.9	0	0	0	0	24	0	0	642000	0	1090 861.21
5/17/2010	2.5	6.2	0	0	0	0	24	0	0	522000	0	1040 976.93
5/18/2010	4.8	5.7	0	0	0	0	24	0	0	605000	0	1110 931.23
5/19/2010	5.9	4.3	0	0	0	0	24	0	0	586000	0	1100 939.32

Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
5/20/2010	4.7	7.2	0	0	0	0	24	0	0	184000	0	1060	861.14
5/21/2010	5.8	5	0	0	0	0	24	0	0	331000	0	1100	967.54
5/22/2010	3.2	10.4	0	0	0	0	24	0	0	667000	0	1090	798.32
5/23/2010	3.3	11.5	0	0	0	0	24	0	0	669000	0	1170	748.04
5/24/2010	0	24	0	0	0	0	24	0	0	850000	460	720	582.67
5/25/2010	3.9	11.5	0	0	0	0	24	0	0	705000	0	1120	749.35
5/26/2010	0	24	0	0	0	0	24	0	0	842000	450	730	578.5
5/27/2010	0	24	0	0	0	0	24	0	0	916000	410	790	628.88
5/28/2010	8.3	5.8	0	0	0	0	24	0	0	807000	0	1120	934.82
5/29/2010	4	8.4	0	0	0	0	24	0	0	777000	0	1150	1018.25
5/30/2010	6.8	8.2	0	0	0	0	24	0	0	888000	0	1160	973.07
5/31/2010	4	13.2	0	0	0	0	24	0	0	904000	0	1150	871.74
6/1/2010	10.2	7	0	0	0	0	24	0	0	941000	0	1150	888.69
6/2/2010	3.7	11.8	0	0	0	0	24	0	0	928000	0	1210	967.03
6/3/2010	0	24	0	0	0	0	24	0	0	988000	520	900	680.54
6/4/2010	0	24	0	0	0	0	24	0	0	964000	500	790	661.58
6/5/2010	3.9	12.6	0	0	0	0	24	0	0	782000	0	1150	782.18
6/6/2010	7.4	5.9	0	0	0	0	24	0	0	806000	0	1180	880.2
6/7/2010	5.2	21.4	0	0	0	0	24	0	0	1061000	0	1250	819.49
6/10/2010	3.1	1.5	0	0	0	0	7.5	0	0	304000	0	1150	877.89
6/11/2010	3.4	9	0	0	0	0	24	0	0	783000	0	1180	1036.11
6/12/2010	6	6.5	0	0	0	0	24	0	0	738000	0	1140	978.24
6/13/2010	3.9	14	0	0	0	0	24	0	0	838000	0	1220	771.9
6/14/2010	7.6	2.7	0	0	0	0	24	0	0	629000	0	1120	927.08
6/15/2010	7.5	5.6	0	0	0	0	24	0	0	783000	0	1140	981.35
6/16/2010	2.5	6.6	0	0	0	0	24	0	0	650000	0	1180	725.7
6/17/2010	10	4.3	0	0	0	0	24	0	0	815000	0	1130	784.56
6/18/2010	3.4	13.7	0	0	0	0	24	0	0	967000	0	1170	932.11
6/19/2010	5.2	12.5	0	0	0	0	24	0	0	841000	0	1200	784.35
6/20/2010	2.8	14.7	0	0	0	0	24	0	0	875000	0	1220	822.67
6/21/2010	2.7	21.3	0	0	0	0	21.6	0	0	991000	0	1380	740.37
6/22/2010	6.2	11.7	0	0	0	0	24	0	0	895000	0	1140	821.73
6/23/2010	0	24	0	0	0	0	24	0	0	1020000	500	1060	701.92
6/24/2010	2.6	18.1	0	0	0	0	24	0	0	884000	0	1140	698.7
6/25/2010	4	10.4	0	0	0	0	24	0	0	915000	0	1180	997.17
6/26/2010	4.7	14.2	0	0	0	0	24	0	0	881000	0	1090	764.68
6/27/2010	0	24	0	0	0	0	24	0	0	1019000	520	890	702.21
6/28/2010	5.5	12.1	0	0	0	0	24	0	0	912000	0	1180	848.36
6/29/2010	4.4	10	0	0	0	0	24	0	0	950000	0	1210	899.08
6/30/2010	9.6	8.2	0	0	0	0	24	0	0	1086000	0	1160	940.99
7/1/2010	3.6	8.8	0	0	0	0	18.3	0	0	1047000	0	1160	841.62
7/2/2010	14.2	8.7	0	0	0	0	24	0	0	1309000	0	1840	1000.74
7/3/2010	9.9	8.1	0	0	0	0	24	0	0	1232000	0	1280	973.16
7/4/2010	9.1	8.6	0	0	0	0	24	0	0	1208000	0	1250	987.04
7/5/2010	0	21.1	0	0	0	0	24	0	0	1418000	0	1270	1108.96
7/6/2010	13.8	7.8	0	0	0	0	24	0	0	1256000	0	1620	1075.34
7/7/2010	8.5	24	0	0	0	0	24	0	0	1470000	590	1650	1013.42
7/8/2010	7.1	23.2	0	0	0	0	24	0	0	1363000	0	1500	954.89
7/9/2010	9.3	2.5	0	0	0	0	24	0	0	777000	0	1120	1012.29
7/10/2010	7	5.7	0	0	0	0	24	0	0	792000	0	1140	1004.58
7/11/2010	3.5	9.6	0	0	0	0	24	0	0	840000	0	1170	950
7/12/2010	12.8	2.8	0	0	0	0	24	0	0	941000	0	1150	997.39
7/13/2010	6.5	6.2	0	0	0	0	24	0	0	778000	0	1160	992.48
7/14/2010	2.9	9.2	0	0	0	0	24	0	0	776000	0	1230	949.56
7/15/2010	10.2	3.3	0	0	0	0	24	0	0	826000	0	1210	942.69
7/16/2010	10.5	6.2	0	0	0	0	24	0	0	1066000	0	1150	920.16
7/17/2010	4.6	7	0	0	0	0	24	0	0	719000	0	1170	968.31
7/18/2010	5.4	7.5	0	0	0	0	24	0	0	853000	0	1200	880.75
7/20/2010	2.9	5	0	0	0	0	15.6	0	0	501000	0	1140	1024.2
7/21/2010	8.1	2.5	0	0	0	0	24	0	0	651000	0	1130	998.97
7/22/2010	5.3	6.8	0	0	0	0	24	0	0	725000	0	1160	885.15
7/23/2010	2.6	8.7	0	0	0	0	24	0	0	741000	0	1170	821.41
7/24/2010	7.3	5.5	0	0	0	0	24	0	0	893000	0	1240	850.75
7/25/2010	7.5	4	0	0	0	0	24	0	0	781000	0	1260	880.74
7/26/2010	3.5	11.2	0	0	0	0	24	0	0	941000	0	1210	996.52
7/27/2010	5	7.3	0	0	0	0	24	0	0	831000	0	1210	822.22
7/28/2010	8.6	2.7	0	0	0	0	24	0	0	743000	0	1160	907.33
7/29/2010	7.4	6.6	0	0	0	0	24	0	0	876000	0	1160	843.68
7/30/2010	3.9	10	0	0	0	0	24	0	0	934000	0	1210	948.4
7/31/2010	8.3	4.2	0	0	0	0	24	0	0	771000	0	1150	888.67

Date	Runtimes (hours)								Total	Flow		Flow Rate Average
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High	
8/1/2010	4.2	8.4	0	0	0	24	0	0	814000	0	1190	854.08
8/2/2010	11.1	3.9	0	0	0	24	0	0	954000	0	1130	912.03
8/3/2010	6.7	8.2	0	0	0	24	0	0	930000	0	1260	1031.8
8/4/2010	8.8	12.1	0	0	0	24	0	0	1068000	0	1580	1039.59
8/5/2010	4.7	9	0	0	0	24	0	0	912000	0	1280	1001.6
8/6/2010	6.4	13.1	0	0	0	24	0	0	1027000	0	1600	1142.82
8/7/2010	10.4	11.3	0	0	0	24	0	0	1133000	0	1550	859.82
8/8/2010	13.8	9.8	0	0	0	24	0	0	1149000	0	1590	940.25
8/9/2010	15.8	14.4	0	0	0	23.9	0	0	1258000	0	1580	1127.88
8/10/2010	11.7	14.7	0	0	0	24	0	0	1128000	0	1630	1199.49
8/11/2010	13.6	12	0	0	0	24	0	0	1116000	0	1580	1225.03
8/12/2010	14.1	13	0	0	0	24	0	0	1254000	0	1560	1130.54
8/13/2010	13.9	16.6	0	0	0	24	0	0	1292000	0	1620	1209.94
8/16/2010	4.8	4.7	0	0	0	15.4	0	0	406000	0	1320	1090.16
8/17/2010	9	14.1	0	0	0	24	0	0	946000	0	1430	881.75
8/18/2010	6.9	12.5	0	0	0	24	0	0	807000	0	1270	961.93
8/19/2010	7.4	9.7	0	0	0	24	0	0	921000	0	1280	1005.36
8/20/2010	8.1	14.1	0	0	0	24	0	0	951000	0	1420	979.01
8/21/2010	12.4	14.3	0	0	0	24	0	0	1027000	0	1480	999.65
8/22/2010	11.3	11.4	0	0	0	24	0	0	940000	0	1550	1189.08
8/23/2010	4.2	7.5	0	0	0	13.9	0	0	1047000	0	1250	1008.54
8/24/2010	12.2	2.6	0	0	0	24	0	0	910000	0	1140	1003.67
8/25/2010	3.6	11.9	0	0	0	24	0	0	999000	0	1260	1032.17
8/26/2010	12	3.8	0	0	0	24	0	0	1000000	0	1150	1036.6
8/27/2010	8.2	11.1	0	0	0	24	0	0	1077000	0	1610	1104.41
8/28/2010	11.2	7.9	0	0	0	24	0	0	1191000	0	1150	1024.46
8/29/2010	4.4	13.3	0	0	0	24	0	0	1197000	0	1260	1014.26
8/30/2010	9.1	13.1	0	0	0	24	0	0	1225000	0	1620	1107
8/31/2010	10.6	6.3	0	0	0	24	0	0	1075000	0	1220	948.51
9/1/2010	12.3	6.9	0	0	0	24	0	0	1220000	0	1300	1054.76
9/2/2010	14.7	3.3	0	0	0	24	0	0	1146000	0	1250	912.27
9/3/2010	9.3	11	0	0	0	24	0	0	1101000	0	1520	1048.09
9/4/2010	11	6.4	0	0	0	24	0	0	1121000	0	1200	1061.6
9/5/2010	7.6	12.8	0	0	0	24	0	0	1204000	0	1290	937.63
9/6/2010	12.3	13.4	0	0	0	24	0	0	1369000	0	1600	1095.83
9/7/2010	11.9	4.3	0	0	0	24	0	0	1045000	0	1230	986.17
9/8/2010	8.5	11.7	0	0	0	24	0	0	1101000	0	1630	1024.1
9/9/2010	11.4	5.6	0	0	0	24	0	0	1072000	0	1190	1009.72
9/10/2010	3.7	11.6	0	0	0	24	0	0	963000	0	1310	1035.07
9/11/2010	8.5	4.9	0	0	0	24	0	0	866000	0	1420	1048.03
9/12/2010	4.9	10.4	0	0	0	24	0	0	998000	0	1200	967.02
9/13/2010	15.1	3.5	0	0	0	24	0	0	1171000	0	1260	1006.88
9/14/2010	4.5	11.9	0	0	0	24	0	0	1063000	0	1280	1021.63
9/15/2010	9.3	6.5	0	0	0	24	0	0	1060000	0	1220	1052.22
9/16/2010	7.5	7.2	0	0	0	24	0	0	925000	0	1330	982.69
9/17/2010	10.9	5.3	0	0	0	24	0	0	1033000	0	1160	1044.91
9/18/2010	8.6	7.4	0	0	0	24	0	0	1101000	0	1230	1007.64
9/19/2010	12.7	6.6	0	0	0	24	0	0	1234000	0	1210	1018.2
9/20/2010	8.6	10.7	0	0	0	24	0	0	1075000	0	1610	971.48
9/21/2010	5.3	12.9	0	0	0	24	0	0	1141000	0	1260	835.4
9/22/2010	16.4	2.9	0	0	0	24	0	0	1226000	0	1150	993.07
9/23/2010	0.9	17.8	0	0	0	24	0	0	1159000	0	1270	961.1
9/24/2010	18.9	0	0	0	0	24	0	0	1215000	0	1160	1065.77
9/25/2010	4.1	8.8	0	0	0	24	0	0	911000	0	1230	929.75
9/26/2010	5.8	8.7	0	0	0	24	0	0	910000	0	1250	1002.72
9/27/2010	11.7	0	0	0	0	24	0	0	781000	0	1170	981.37
9/28/2010	4.8	10.8	0	0	0	24	0	0	984000	0	1260	885.9
9/29/2010	8	8.5	0	0	0	24	0	0	1052000	0	1230	895.39
9/30/2010	9.4	1.8	0	0	0	24	0	0	722000	0	1160	959.28
10/1/2010	4.6	12.9	0	0	0	24	0	0	1114000	0	1270	1039.15
10/2/2010	6.7	11.7	0	0	0	24	0	0	1024000	0	1310	743.51
10/3/2010	8.8	3.3	0	0	0	24	0	0	722000	0	1130	997.27
10/4/2010	0	13.8	0	0	0	24	0	0	843000	0	1290	1015.22
10/5/2010	10.7	4.9	0	0	0	24	0	0	981000	0	1190	1039.04
10/8/2010	0.7	7.8	0	0	0	14.7	0	0	544000	0	1140	1056.59
10/9/2010	14.6	3.3	0	0	0	24	0	0	1111000	0	1160	939.49
10/10/2010	0.9	16.1	0	0	0	24	0	0	1063000	0	1340	1033.77
10/11/2010	0	24	0	0	0	24	0	0	1256000	650	1070	864.92
10/12/2010	4.9	10.5	0	0	0	24	0	0	878000	0	1110	698.12
10/13/2010	9.2	7.6	0	0	0	24	0	0	1047000	0	1190	1024.29

Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
10/14/2010	8.4	1.9	0	0	0	0	24	0	0	650000	0	1170	825.62
10/15/2010	4.3	12.5	0	0	0	0	24	0	0	1106000	0	1330	1065.21
10/16/2010	7.1	10.9	0	0	0	0	24	0	0	973000	0	1300	767.14
10/17/2010	11.7	5.9	0	0	0	0	24	0	0	1073000	0	1170	827.89
10/18/2010	1.1	16.7	0	0	0	0	24	0	0	1028000	0	1300	957.87
10/19/2010	10.4	0	0	0	0	0	24	0	0	704000	0	1170	1103.33
10/20/2010	0	20.4	0	0	0	0	24	0	0	1200000	0	1250	970.44
10/21/2010	6.5	5.3	0	0	0	0	24	0	0	787000	0	1200	1072.4
10/22/2010	9.9	7.1	0	0	0	0	24	0	0	1043000	0	1210	972.32
10/23/2010	12.5	1.2	0	0	0	0	24	0	0	921000	0	1170	987.94
10/24/2010	0	17.2	0	0	0	0	24	0	0	1004000	0	1280	963.66
10/25/2010	8.7	1.3	0	0	0	0	24	0	0	654000	0	1140	1058.61
10/26/2010	6.5	7.2	0	0	0	0	24	0	0	863000	0	1170	924
10/27/2010	1.6	5.9	0	0	0	0	24	0	0	522000	0	1230	1134.8
10/28/2010	6.2	7.4	0	0	0	0	24	0	0	804000	0	1180	973.07
10/29/2010	6.7	1.1	0	0	0	0	24	0	0	528000	0	1170	1054.02
10/30/2010	8.9	6.4	0	0	0	0	24	0	0	895000	0	1170	813.04
10/31/2010	0	8.5	0	0	0	0	24	0	0	592000	0	1270	1136.05
11/1/2010	8.6	3.4	0	0	0	0	24	0	0	720000	0	1210	983.31
11/2/2010	7.9	3.8	0	0	0	0	24	0	0	733000	0	1180	865.93
11/3/2010	0.3	6	0	0	0	0	24	0	0	439000	0	1230	1041.88
11/4/2010	6.9	7	0	0	0	0	24	0	0	811000	0	1110	959
11/5/2010	6.1	0.1	0	0	0	0	24	0	0	393000	0	1140	1070.65

Date	Runtimes (hours)								Total	Flow		Flow Rate Average
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High	
11/6/2010	0	6.6	0	0	0	0	24	0	462000	0	1200	1155.91
11/7/2010	6.8	7.2	0	0	0	0	24	0	814000	0	1170	954.61
11/8/2010	6.5	0	0	0	0	0	24	0	433000	0	1190	1099.08
11/9/2010	5.8	7.7	0	0	0	0	24	0	804000	0	1190	901.44
11/10/2010	1.7	7.6	0	0	0	0	24	0	564000	0	1230	997.77
11/11/2010	7.3	0.6	0	0	0	0	24	0	537000	0	1170	1088.63
11/12/2010	7.4	6.2	0	0	0	0	24	0	795000	0	1160	818.07
11/13/2010	0	7.6	0	0	0	0	24	0	533000	0	1220	1145.07
11/14/2010	7.9	0.4	0	0	0	0	24	0	545000	0	1120	1064.05
11/15/2010	7	5.9	0	0	0	0	24	0	773000	0	1210	770.48
11/16/2010	0	5.9	0	0	0	0	24	0	387000	0	1180	1062.17
11/17/2010	6.6	1.8	0	0	0	0	24	0	531000	0	1130	1040.71
11/18/2010	6.7	5.4	0	0	0	0	24	0	681000	0	1120	806.36
11/19/2010	0	6	0	0	0	0	24	0	396000	0	1210	1087.83
11/20/2010	7.6	2.7	0	0	0	0	24	0	643000	0	1140	1013.46
11/21/2010	7.7	3.6	0	0	0	0	24	0	709000	0	1160	982.5
11/22/2010	0.2	6.2	0	0	0	0	24	0	449000	0	1260	1129.69
11/23/2010	7	6.7	0	0	0	0	24	0	778000	0	1140	891.86
11/24/2010	6.7	0	0	0	0	0	24	0	438000	0	1170	607.73
11/25/2010	0	7.2	0	0	0	0	24	0	508000	0	1220	1132.57
11/26/2010	6.5	3.6	0	0	0	0	24	0	623000	0	1120	1020
11/27/2010	7	2.8	0	0	0	0	24	0	576000	0	1140	745.74
11/28/2010	0	6.8	0	0	0	0	24	0	464000	0	1190	1117.1
11/29/2010	7.2	1.5	0	0	0	0	24	0	549000	0	1170	1026.14
11/30/2010	6.4	5	0	0	0	0	24	0	652000	0	1130	956.14
12/1/2010	0	5.8	0	0	0	0	24	0	380000	0	1170	1086.03
12/2/2010	6.5	1.1	0	0	0	0	24	0	499000	0	1210	1021.36
12/3/2010	6.6	5.3	0	0	0	0	24	0	680000	0	1080	898.89
12/4/2010	0	6.2	0	0	0	0	24	0	426000	0	1210	1120.65
12/5/2010	7.1	0	0	0	0	0	24	0	473000	0	1160	1100.42
12/6/2010	3.7	7.2	0	0	0	0	24	0	653000	0	1190	719.19
12/7/2010	2.7	6.6	0	0	0	0	24	0	572000	0	1130	966.84
12/8/2010	5.9	0	0	0	0	0	24	0	390000	0	1170	712.56
12/9/2010	4.4	7	0	0	0	0	24	0	688000	0	1180	799.72
12/10/2010	2.5	7.4	0	0	0	0	24	0	570000	0	1140	961.92
12/11/2010	7.8	0	0	0	0	0	24	0	506000	0	1170	1060.25
12/12/2010	1.4	7.1	0	0	0	0	24	0	559000	0	1190	1093.65
12/13/2010	4.9	6.6	0	0	0	0	24	0	702000	0	1130	1003.79
12/14/2010	6	0	0	0	0	0	24	0	404000	0	1170	1090.49
12/15/2010	5.2	7.1	0	0	0	0	24	0	719000	0	1060	946.64
12/16/2010	5.1	5.1	0	0	0	0	24	0	661000	0	1170	984.32
12/17/2010	4.7	4.7	0	0	0	0	24	0	638000	0	1210	861.23
12/18/2010	4.1	5.1	0	0	0	0	24	0	603000	0	1150	1067.63
12/19/2010	5.2	5	0	0	0	0	24	0	667000	0	1310	884.96
12/20/2010	4.4	4.5	0	0	0	0	24	0	572000	0	1170	1058.54
12/21/2010	4.1	4.6	0	0	0	0	24	0	527000	0	1130	981.57
12/22/2010	4.9	4.7	0	0	0	0	24	0	571000	0	1130	973.92
12/23/2010	5.1	4.5	0	0	0	0	24	0	580000	0	1170	953.8
12/24/2010	4.5	5.3	0	0	0	0	24	0	618000	0	1170	1033.67
12/25/2010	4.1	5.5	0	0	0	0	24	0	571000	0	1160	968.87
12/26/2010	4.8	5.6	0	0	0	0	24	0	608000	0	1110	959.81
12/27/2010	5.8	5.2	0	0	0	0	24	0	668000	0	1160	994.55
12/28/2010	5	4.9	0	0	0	0	24	0	599000	0	1150	997.98
12/29/2010	4.9	4.7	0	0	0	0	24	0	565000	0	1150	961.24
12/30/2010	4.9	4.6	0	0	0	0	24	0	568000	0	1170	983.23
12/31/2010	4.6	4.9	0	0	0	0	24	0	586000	0	1180	1017.79

#1	PUMP 1 =	2048.5 Hours	Average =	5.72
#2	PUMP 2 =	2579.1 Hours	Average =	7.2
#3	ENTRY ALARM =	0 Hours	Average =	0
#4	HIGH DISCH PSI =	0 Hours	Average =	0
#5	LOW SUCT PSI =	0 Hours	Average =	0
#6	POWER =	8529.9 Hours	Average =	23.83
#7	=	0 Hours	Average =	0
#8	=	0 Hours	Average =	0
Total Flow =		265,483,000 GAL		
Flow Rate Low =		0 GPM		
Flow Rate High =		1840 GPM		
Flow Rate Average =		953.76 GPM		

FLOW SUMMARY JAN 2010 - DEC 2010
 CLAYS MILL RD METER #2
 TAKEN FROM USEWD TELEMETRY

Date	Runtimes (hours)		#3	#4	#5	#6	#7	#8	Total	Flow		Flow Rate Average
	#1	#2								Low	High	
1/1/2010	24	0	0	0	0	0	0	0	13000	0	22	19.14
1/2/2010	24	0	0	0	0	0	0	0	11000	0	23	20.15
1/3/2010	24	0	0	0	0	0	0	0	15000	0	23	20
1/4/2010	24	0	0	0	0	0	0	0	12000	0	23	19.83
1/5/2010	24	0	0	0	0	0	0	0	15000	0	23	21.13
1/6/2010	24	0	0	0	0	0	0	0	13000	0	23	20.6
1/7/2010	24	0	0	0	0	0	0	0	13000	0	23	20.15
1/8/2010	24	0	0	0	0	0	0	0	14000	0	24	20.26
1/9/2010	24	0	0	0	0	0	0	0	12000	0	22	19.11
1/10/2010	24	0	0	0	0	0	0	0	15000	0	23	20.33
1/11/2010	24	0.1	0	0	0	0	0	0	13000	0	23	20.69
1/12/2010	24	0	0	0	0	0	0	0	13000	0	25	19.93
1/13/2010	24	0	0	0	0	0	0	0	15000	0	22	19.82
1/14/2010	24	0	0	0	0	0	0	0	14000	0	22	19.5
1/15/2010	24	0	0	0	0	0	0	0	15000	0	21	19.55
1/16/2010	24	0	0	0	0	0	0	0	15000	0	22	20.16
1/17/2010	24	0	0	0	0	0	0	0	15000	0	23	20.24
1/18/2010	24	0	0	0	0	0	0	0	16000	0	23	19.81
1/19/2010	24	0	0	0	0	0	0	0	13000	0	22	20.05
1/20/2010	24	0.2	0	0	0	0	0	0	15000	0	23	20.25
1/21/2010	24	0	0	0	0	0	0	0	13000	0	24	20.02
1/22/2010	24	0	0	0	0	0	0	0	14000	0	23	19.81
1/23/2010	24	0	0	0	0	0	0	0	13000	0	23	20.05
1/24/2010	24	0	0	0	0	0	0	0	15000	0	23	20.09
1/25/2010	24	0	0	0	0	0	0	0	13000	0	22	19.88
1/26/2010	24	0	0	0	0	0	0	0	11000	0	24	19.89
1/27/2010	24	0	0	0	0	0	0	0	11000	0	22	19.93
1/28/2010	24	0	0	0	0	0	0	0	12000	0	22	20.34
1/29/2010	24	0	0	0	0	0	0	0	11000	0	22	20.09
1/30/2010	24	0	0	0	0	0	0	0	11000	0	23	19.72
1/31/2010	24	0	0	0	0	0	0	0	14000	0	22	20.37
2/1/2010	24	0	0	0	0	0	0	0	12000	0	22	19.52
2/2/2010	24	0	0	0	0	0	0	0	12000	0	22	19.57
2/3/2010	24	0	0	0	0	0	0	0	13000	0	22	20.68
2/4/2010	24	0	0	0	0	0	0	0	11000	0	23	19.49
2/5/2010	24	0	0	0	0	0	0	0	11000	0	23	19.71
2/6/2010	24	0	0	0	0	0	0	0	10000	0	22	19.9
2/7/2010	24	0	0	0	0	0	0	0	12000	0	22	19.86
2/8/2010	24	0	0	0	0	0	0	0	12000	0	22	20
2/9/2010	24	0	0	0	0	0	0	0	10000	0	22	19.83
2/10/2010	24	0	0	0	0	0	0	0	12000	0	22	19.41
2/11/2010	24	0	0	0	0	0	0	0	11000	0	22	20.15
2/12/2010	24	0	0	0	0	0	0	0	11000	0	22	19.21
2/13/2010	24	0	0	0	0	0	0	0	14000	0	23	20.3
2/14/2010	24	0	0	0	0	0	0	0	10000	0	22	19.63
2/15/2010	24	0	0	0	0	0	0	0	14000	0	22	20.09
2/16/2010	24	0	0	0	0	0	0	0	10000	0	22	19.94
2/17/2010	24	0	0	0	0	0	0	0	14000	0	23	20.54
2/18/2010	24	0	0	0	0	0	0	0	11000	0	23	20.33
2/19/2010	24	0	0	0	0	0	0	0	13000	0	23	19.81
2/20/2010	24	0	0	0	0	0	0	0	11000	0	22	19.22
2/21/2010	24	0	0	0	0	0	0	0	14000	0	22	20.24
2/22/2010	24	0	0	0	0	0	0	0	12000	0	23	20.16
2/23/2010	24	0	0	0	0	0	0	0	10000	0	23	19.94
2/24/2010	24	0	0	0	0	0	0	0	13000	0	23	20.26
2/25/2010	24	0	0	0	0	0	0	0	11000	0	24	20.02
2/26/2010	24	0	0	0	0	0	0	0	12000	0	22	19.76
2/27/2010	24	0	0	0	0	0	0	0	11000	0	22	18.47
2/28/2010	24	0	0	0	0	0	0	0	14000	0	23	20.65
3/1/2010	24	0	0	0	0	0	0	0	11000	0	21	19.87
3/2/2010	24	0	0	0	0	0	0	0	10000	0	22	20.33
3/3/2010	24	0	0	0	0	0	0	0	13000	0	23	20.52
3/4/2010	24	0	0	0	0	0	0	0	11000	0	25	19.36
3/5/2010	24	0	0	0	0	0	0	0	13000	0	23	19.73
3/6/2010	24	0	0	0	0	0	0	0	11000	0	23	20.08
3/7/2010	24	0	0	0	0	0	0	0	15000	0	22	20.33
3/8/2010	24	0	0	0	0	0	0	0	4000	0	21	19.14
3/9/2010	24	0	0	0	0	0	0	0	0	0	0	0
3/10/2010	24	0	0	0	0	0	0	0	0	0	0	0
3/11/2010	24	0	0	0	0	0	0	0	0	0	0	0
3/12/2010	24	0	0	0	0	0	0	0	7000	0	22	20.26

Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
3/13/2010	24	0	0	0	0	0	0	0	0	9000	0	24	19.32
3/14/2010	24	0	0	0	0	0	0	0	0	12000	0	23	19.6
3/15/2010	24	0	0	0	0	0	0	0	0	11000	0	22	19.95
3/16/2010	24	0	0	0	0	0	0	0	0	11000	0	22	20.08
3/17/2010	24	0	0	0	0	0	0	0	0	10000	0	24	19.96
3/18/2010	24	0	0	0	0	0	0	0	0	11000	0	23	19.22
3/19/2010	24	0	0	0	0	0	0	0	0	12000	0	23	19.89
3/20/2010	24	0	0	0	0	0	0	0	0	12000	0	23	20.32
3/21/2010	24	0	0	0	0	0	0	0	0	14000	0	23	20.17
3/22/2010	24	0	0	0	0	0	0	0	0	10000	0	22	21.1
3/23/2010	24	0	0	0	0	0	0	0	0	11000	0	23	18.87
3/24/2010	24	0	0	0	0	0	0	0	0	10000	0	23	20.2
3/25/2010	24	0	0	0	0	0	0	0	0	10000	0	22	20.84
3/26/2010	24	0	0	0	0	0	0	0	0	10000	0	24	19.85
3/27/2010	24	0	0	0	0	0	0	0	0	10000	0	21	18.06
3/28/2010	24	0	0	0	0	0	0	0	0	11000	0	23	20.09
3/29/2010	24	0	0	0	0	0	0	0	0	11000	0	23	20.23
3/30/2010	24	0	0	0	0	0	0	0	0	10000	0	23	20.53
3/31/2010	24	0	0	0	0	0	0	0	0	10000	0	23	20.31
4/1/2010	24	0	0	0	0	0	0	0	0	10000	0	23	21.08
4/2/2010	24	0	0	0	0	0	0	0	0	14000	0	23	19.02
4/3/2010	24	0	0	0	0	0	0	0	0	12000	0	23	18.55
4/4/2010	23	0	0	0	0	0	0	0	0	12000	0	23	20.26
4/5/2010	24	0	0	0	0	0	0	0	0	11000	0	23	20.05
4/6/2010	24	0	0	0	0	0	0	0	0	11000	0	22	19.71
4/7/2010	24	0	0	0	0	0	0	0	0	14000	0	23	20.54
4/8/2010	24	0	0	0	0	0	0	0	0	9000	0	22	19.56
4/9/2010	24	0	0	0	0	0	0	0	0	11000	0	24	19.1
4/10/2010	24	0	0	0	0	0	0	0	0	13000	0	23	20.11
4/11/2010	24	0	0	0	0	0	0	0	0	13000	0	23	20.74
4/12/2010	24	0	0	0	0	0	0	0	0	13000	0	25	18.34
4/13/2010	24	0	0	0	0	0	0	0	0	13000	0	23	18.86
4/14/2010	24	0	0	0	0	0	0	0	0	14000	0	23	20.06
4/15/2010	24	0	0	0	0	0	0	0	0	16000	0	23	20.02
4/16/2010	24	0	0	0	0	0	0	0	0	13000	0	23	19.61
4/17/2010	24	0	0	0	0	0	0	0	0	13000	0	23	18.98
4/18/2010	24	0	0	0	0	0	0	0	0	16000	0	23	16.34
4/19/2010	24	0	0	0	0	0	0	0	0	15000	0	23	19.54
4/20/2010	24	0	0	0	0	0	0	0	0	13000	0	23	19.34
4/21/2010	24	0	0	0	0	0	0	0	0	16000	0	22	19.65
4/22/2010	24	0	0	0	0	0	0	0	0	15000	0	23	20.36
4/23/2010	24	0	0	0	0	0	0	0	0	14000	0	23	20.41
4/24/2010	24	0	0	0	0	0	0	0	0	12000	0	23	20.01
4/25/2010	24	0	0	0	0	0	0	0	0	13000	0	22	19.47
4/26/2010	24	0	0	0	0	0	0	0	0	10000	0	22	19.71
4/27/2010	24	0	0	0	0	0	0	0	0	13000	0	23	19.45
4/28/2010	24	0	0	0	0	0	0	0	0	11000	0	23	19.34
4/29/2010	24	0	0	0	0	0	0	0	0	13000	0	22	19.88
4/30/2010	24	0	0	0	0	0	0	0	0	12000	0	23	19.9
5/1/2010	24	0	0	0	0	0	0	0	0	13000	0	23	19.3
5/2/2010	24	0	0	0	0	0	0	0	0	11000	0	23	19.56
5/3/2010	24	0	0	0	0	0	0	0	0	12000	0	23	19.04
5/4/2010	24	0	0	0	0	0	0	0	0	12000	0	23	20.64
5/5/2010	24	0	0	0	0	0	0	0	0	14000	0	23	19.77
5/6/2010	24	0	0	0	0	0	0	0	0	14000	0	22	18.91
5/7/2010	24	0	0	0	0	0	0	0	0	14000	0	23	17.35
5/8/2010	24	0	0	0	0	0	0	0	0	11000	0	23	19.07
5/9/2010	24	0	0	0	0	0	0	0	0	13000	0	22	17.52
5/10/2010	24	0	0	0	0	0	0	0	0	14000	0	23	15.69
5/11/2010	24	0	0	0	0	0	0	0	0	13000	0	22	16.78
5/12/2010	24	0.1	0	0	0	0	0	0	0	14000	0	23	20.1
5/13/2010	24	0	0	0	0	0	0	0	0	13000	0	24	17.97
5/14/2010	24	0	0	0	0	0	0	0	0	13000	0	23	18.03
5/15/2010	24	0	0	0	0	0	0	0	0	15000	0	23	16.39
5/16/2010	24	0	0	0	0	0	0	0	0	13000	0	22	16.87
5/17/2010	24	0	0	0	0	0	0	0	0	11000	0	21	19.71
5/18/2010	24	0	0	0	0	0	0	0	0	12000	0	22	18.71
5/19/2010	24	0	0	0	0	0	0	0	0	12000	0	22	18.6
5/20/2010	24	0	0	0	0	0	0	0	0	4000	0	21	16.53
5/21/2010	24	0	0	0	0	0	0	0	0	5000	0	16	15.75
5/22/2010	24	0	0	0	0	0	0	0	0	13000	0	17	14.86
5/23/2010	24	0	0	0	0	0	0	0	0	13000	0	17	14.64

Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
5/24/2010	24	0	0	0	0	0	0	0	0	21000	13	15	13.91
5/25/2010	24	0	0	0	0	0	0	0	0	14000	0	17	14.65
5/26/2010	24	0	0	0	0	0	0	0	0	21000	13	15	13.88
5/27/2010	24	0	0	0	0	0	0	0	0	21000	13	15	14.09
5/28/2010	24	0	0	0	0	0	0	0	0	14000	0	17	15.43
5/29/2010	24	0	0	0	0	0	0	0	0	13000	0	17	16.1
5/30/2010	24	0.1	0	0	0	0	0	0	0	15000	0	17	15.52
5/31/2010	24	0	0	0	0	0	0	0	0	16000	0	17	15.07
6/1/2010	24	0	0	0	0	0	0	0	0	16000	0	19	14.86
6/2/2010	24	0	0	0	0	0	0	0	0	15000	0	16	15.02
6/3/2010	24	0	0	0	0	0	0	0	0	21000	13	15	13.75
6/4/2010	24	0	0	0	0	0	0	0	0	20000	13	14	13.7
6/5/2010	24	0	0	0	0	0	0	0	0	15000	0	16	14.02
6/6/2010	24	0	0	0	0	0	0	0	0	14000	0	16	14.21
6/7/2010	24	0	0	0	0	0	0	0	0	19000	0	29	14.62
6/10/2010	7.5	0	0	0	0	0	0	0	0	6000	0	16	14.98
6/11/2010	24	0	0	0	0	0	0	0	0	18000	0	39	22.18
6/12/2010	24	0	0	0	0	0	0	0	0	14000	0	38	17.53
6/13/2010	24	0	0	0	0	0	0	0	0	16000	0	16	14.26
6/14/2010	24	0	0	0	0	0	0	0	0	11000	0	16	14.49
6/15/2010	24	0	0	0	0	0	0	0	0	13000	0	16	15.56
6/16/2010	24	0	0	0	0	0	0	0	0	13000	0	16	13.77
6/17/2010	24	0	0	0	0	0	0	0	0	15000	0	16	13.52
6/18/2010	24	0	0	0	0	0	0	0	0	16000	0	16	14.55
6/19/2010	24	0	0	0	0	0	0	0	0	15000	0	16	13.77
6/20/2010	24	0	0	0	0	0	0	0	0	16000	0	16	13.25
6/21/2010	21.6	0	0	0	0	0	0	0	0	19000	0	15	13.01
6/22/2010	24	0	0	0	0	0	0	0	0	15000	0	15	13.03
6/23/2010	24	0	0	0	0	0	0	0	0	19000	12	14	12.8
6/24/2010	24	0	0	0	0	0	0	0	0	18000	0	15	12.32
6/25/2010	24	0	0	0	0	0	0	0	0	13000	0	16	13.93
6/26/2010	24	0	0	0	0	0	0	0	0	17000	0	15	13.55
6/27/2010	24	0	0	0	0	0	0	0	0	20000	12	14	13.31
6/28/2010	24	0	0	0	0	0	0	0	0	17000	0	16	12.64
6/29/2010	24	0	0	0	0	0	0	0	0	15000	0	16	13.85
6/30/2010	24	0	0	0	0	0	0	0	0	18000	0	15	13.91
7/1/2010	18.3	0	0	0	0	0	0	0	0	18000	0	15	13.35
7/2/2010	24	0	0	0	0	0	0	0	0	19000	0	16	13.68
7/3/2010	24	0	0	0	0	0	0	0	0	18000	0	15	13.77
7/4/2010	24	0	0	0	0	0	0	0	0	18000	0	15	14
7/5/2010	24	0	0	0	0	0	0	0	0	19000	0	15	14.71
7/6/2010	24	0	0	0	0	0	0	0	0	18000	0	15	13.75
7/7/2010	24	0	0	0	0	0	0	0	0	20000	12	15	13.35
7/8/2010	24	0	0	0	0	0	0	0	0	19000	0	15	13.19
7/9/2010	24	0	0	0	0	0	0	0	0	13000	0	14	11.42
7/10/2010	24	0	0	0	0	0	0	0	0	13000	0	15	12.16
7/11/2010	24	0	0	0	0	0	0	0	0	14000	0	15	13.13
7/12/2010	24	0	0	0	0	0	0	0	0	14000	0	15	13.47
7/13/2010	24	0	0	0	0	0	0	0	0	14000	0	15	11.63
7/14/2010	24	0	0	0	0	0	0	0	0	12000	0	15	12.42
7/15/2010	24	0	0	0	0	0	0	0	0	14000	0	15	13.13
7/16/2010	24	0	0	0	0	0	0	0	0	16000	0	15	13.28
7/17/2010	24	0	0	0	0	0	0	0	0	14000	0	15	12.2
7/18/2010	24	0	0	0	0	0	0	0	0	14000	0	15	12.71
7/20/2010	15.6	0	0	0	0	0	0	0	0	9000	0	14	10.35
7/21/2010	24	0	0	0	0	0	0	0	0	11000	0	15	10.66
7/22/2010	24	0	0	0	0	0	0	0	0	15000	0	15	11.32
7/23/2010	24	0	0	0	0	0	0	0	0	13000	0	15	11.69
7/24/2010	24	0	0	0	0	0	0	0	0	15000	0	15	12.23
7/25/2010	24	0	0	0	0	0	0	0	0	13000	0	15	12.3
7/26/2010	24	0	0	0	0	0	0	0	0	16000	0	15	11.22
7/27/2010	24	0	0	0	0	0	0	0	0	14000	0	15	11.54
7/28/2010	24	0.1	0	0	0	0	0	0	0	12000	0	14	11.94
7/29/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.73
7/30/2010	24	0	0	0	0	0	0	0	0	15000	0	14	12.49
7/31/2010	24	0	0	0	0	0	0	0	0	13000	0	14	12.26
8/1/2010	24	0	0	0	0	0	0	0	0	13000	0	15	12.4
8/2/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.26
8/3/2010	24	0	0	0	0	0	0	0	0	15000	0	15	12.01
8/4/2010	24	0	0	0	0	0	0	0	0	15000	0	15	12.12
8/5/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.54
8/6/2010	24	0	0	0	0	0	0	0	0	15000	0	15	11.82

Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
8/7/2010	24	0	0	0	0	0	0	0	0	17000	0	14	12.21
8/8/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.88
8/9/2010	24	0	0	0	0	0	0	0	0	16000	0	15	12.54
8/10/2010	24	0	0	0	0	0	0	0	0	14000	0	15	12.8
8/11/2010	24	0	0	0	0	0	0	0	0	14000	0	15	12.98
8/12/2010	24	0	0	0	0	0	0	0	0	17000	0	15	12.91
8/13/2010	24	0	0	0	0	0	0	0	0	16000	0	15	12.99
8/16/2010	15.4	0	0	0	0	0	0	0	0	8000	0	15	10.5
8/17/2010	24	0	0	0	0	0	0	0	0	16000	0	15	11.61
8/18/2010	24	0	0	0	0	0	0	0	0	13000	0	15	12.1
8/19/2010	24	0	0	0	0	0	0	0	0	15000	0	15	11.76
8/20/2010	24	0	0	0	0	0	0	0	0	15000	0	15	11.99
8/21/2010	24	0	0	0	0	0	0	0	0	16000	0	15	12.23
8/22/2010	24	0	0	0	0	0	0	0	0	13000	0	15	11.74
8/23/2010	13.9	0	0	0	0	0	0	0	0	16000	0	14	11.56
8/24/2010	24	0	0	0	0	0	0	0	0	12000	0	14	12.64
8/25/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.79
8/26/2010	24	0	0	0	0	0	0	0	0	15000	0	14	12.02
8/27/2010	24	0	0	0	0	0	0	0	0	14000	0	14	12.83
8/28/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.94
8/29/2010	24	0	0	0	0	0	0	0	0	16000	0	15	13.45
8/30/2010	24	0	0	0	0	0	0	0	0	16000	0	15	13.19
8/31/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.97
9/1/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.94
9/2/2010	24	0	0	0	0	0	0	0	0	18000	0	14	12.52
9/3/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.94
9/4/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.92
9/5/2010	24	0	0	0	0	0	0	0	0	17000	0	14	12.54
9/6/2010	24	0	0	0	0	0	0	0	0	17000	0	14	13.05
9/7/2010	24	0	0	0	0	0	0	0	0	15000	0	14	12.34
9/8/2010	24	0	0	0	0	0	0	0	0	15000	0	14	12.71
9/9/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.46
9/10/2010	24	0	0	0	0	0	0	0	0	13000	0	14	11.98
9/11/2010	24	0	0	0	0	0	0	0	0	13000	0	14	12.13
9/12/2010	24	0	0	0	0	0	0	0	0	15000	0	14	12.18
9/13/2010	24	0	0	0	0	0	0	0	0	17000	0	14	11.89
9/14/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.58
9/15/2010	24	0	0	0	0	0	0	0	0	14000	0	14	12.52
9/16/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.38
9/17/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.49
9/18/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.38
9/19/2010	24	0	0	0	0	0	0	0	0	17000	0	14	12.57
9/20/2010	24	0	0	0	0	0	0	0	0	16000	0	14	12.12
9/21/2010	24	0	0	0	0	0	0	0	0	18000	0	14	12.09
9/22/2010	24	0	0	0	0	0	0	0	0	18000	2	14	11.95
9/23/2010	24	0	0	0	0	0	0	0	0	17000	0	14	12.63
9/24/2010	24	0	0	0	0	0	0	0	0	15000	0	14	13.09
9/25/2010	24	0	0	0	0	0	0	0	0	14000	0	14	11.74
9/26/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.64
9/27/2010	24	0	0	0	0	0	0	0	0	13000	0	14	11.77
9/28/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.84
9/29/2010	24	0	0	0	0	0	0	0	0	17000	0	14	11.59
9/30/2010	24	0	0	0	0	0	0	0	0	11000	0	14	10.64
10/1/2010	24	0	0	0	0	0	0	0	0	17000	0	14	11.85
10/2/2010	24	0	0	0	0	0	0	0	0	17000	1	14	11.63
10/3/2010	24	0	0	0	0	0	0	0	0	13000	0	14	10.84
10/4/2010	24	0	0	0	0	0	0	0	0	13000	0	14	11.59
10/5/2010	24	0.1	0	0	0	0	0	0	0	14000	0	14	12.74
10/8/2010	14.7	0	0	0	0	0	0	0	0	10000	0	14	11.56
10/9/2010	24	0	0	0	0	0	0	0	0	17000	0	14	12.44
10/10/2010	24	0	0	0	0	0	0	0	0	15000	0	15	12.78
10/11/2010	24	0	0	0	0	0	0	0	0	20000	12	14	12.8
10/12/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.58
10/13/2010	24	0	0	0	0	0	0	0	0	18000	2	14	11.76
10/14/2010	24	0	0	0	0	0	0	0	0	12000	0	14	11.08
10/15/2010	24	0	0	0	0	0	0	0	0	17000	0	15	12.29
10/16/2010	24	0	0	0	0	0	0	0	0	17000	0	15	11.96
10/17/2010	24	0	0	0	0	0	0	0	0	17000	0	14	11.97
10/18/2010	24	0	0	0	0	0	0	0	0	14000	0	14	12.46
10/19/2010	24	0	0	0	0	0	0	0	0	12000	0	14	11.51
10/20/2010	24	0	0	0	0	0	0	0	0	17000	0	14	12.78
10/21/2010	24	0	0	0	0	0	0	0	0	13000	0	14	11.55

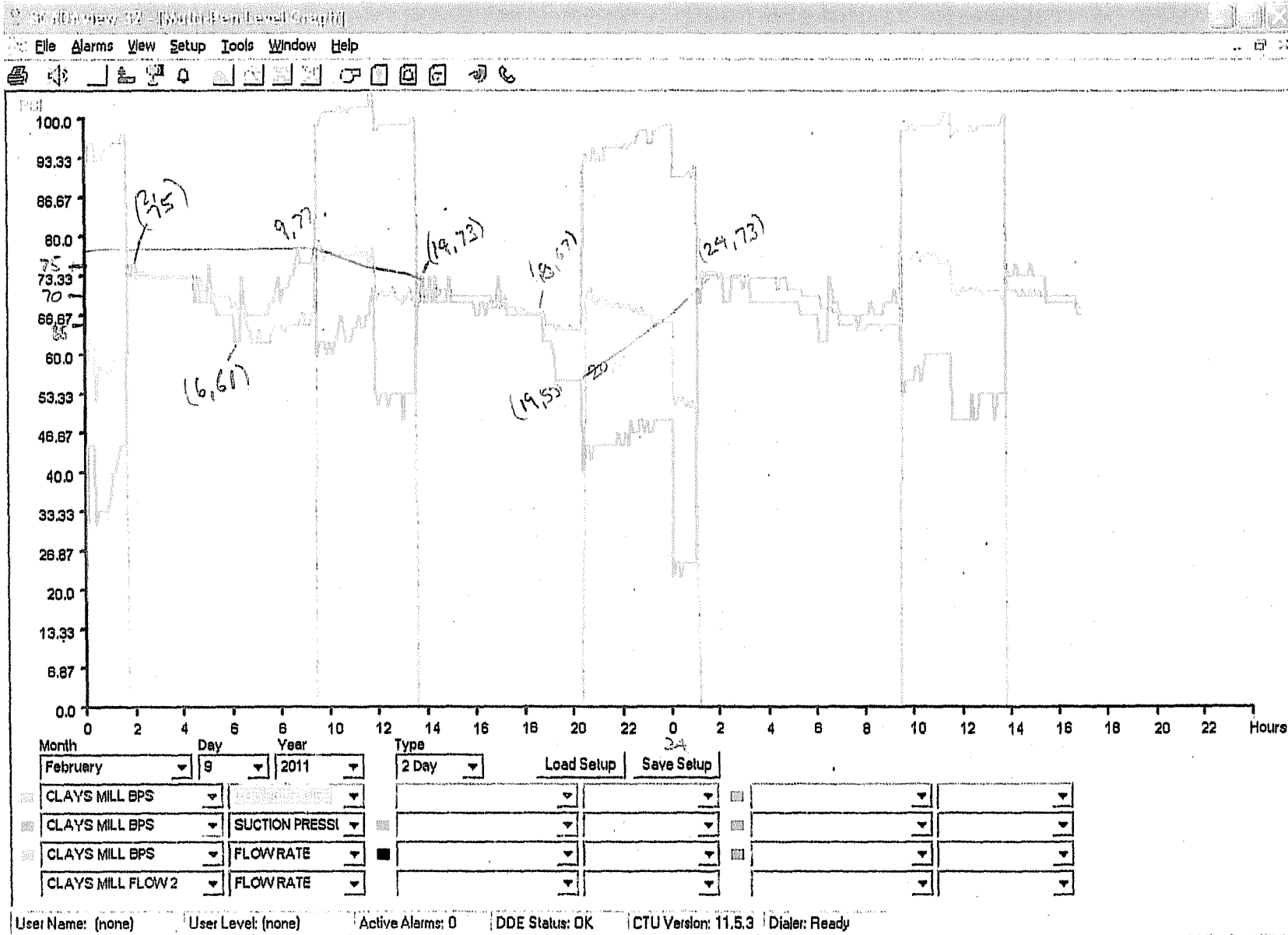
Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
10/22/2010	24	0	0	0	0	0	0	0	0	18000	2	14	11.87
10/23/2010	24	0	0	0	0	0	0	0	0	14000	0	14	12.8
10/24/2010	24	0	0	0	0	0	0	0	0	14000	0	14	13.05
10/25/2010	24	0	0	0	0	0	0	0	0	9000	0	14	11.55
10/26/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.59
10/27/2010	24	0	0	0	0	0	0	0	0	9000	0	14	10.2
10/28/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.4
10/29/2010	24	0	0	0	0	0	0	0	0	9000	0	14	11.38
10/30/2010	24	0	0	0	0	0	0	0	0	16000	0	14	11.9
10/31/2010	24	0	0	0	0	0	0	0	0	9000	0	15	11.65

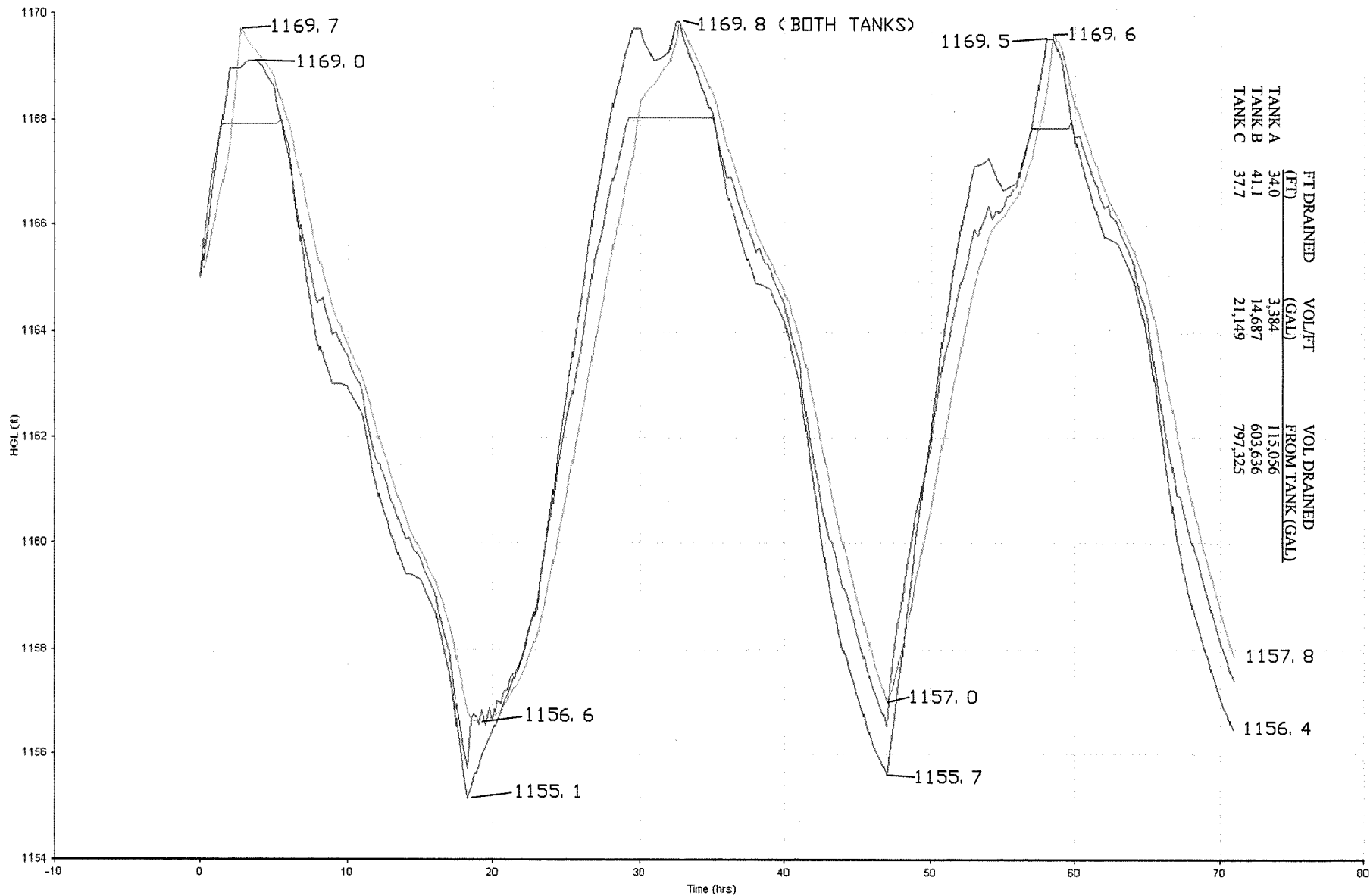
Date	Runtimes (hours)								Total	Flow		Flow Rate Average	
	#1	#2	#3	#4	#5	#6	#7	#8		Low	High		
11/1/2010	24	0	0	0	0	0	0	0	0	13000	0	14	10.59
11/2/2010	24	0	0	0	0	0	0	0	0	15000	0	14	11.34
11/3/2010	24	0	0	0	0	0	0	0	0	8000	0	15	9.69
11/4/2010	24	0	0	0	0	0	0	0	0	14000	0	15	10.95
11/5/2010	24	0	0	0	0	0	0	0	0	8000	0	15	11.39
11/6/2010	24	0	0	0	0	0	0	0	0	9000	0	15	9.12
11/7/2010	24	0	0	0	0	0	0	0	0	15000	0	15	12.11
11/8/2010	24	0	0	0	0	0	0	0	0	8000	0	15	11.68
11/9/2010	24	0	0	0	0	0	0	0	0	17000	0	15	11.52
11/10/2010	24	0.1	0	0	0	0	0	0	0	10000	0	15	11.36
11/11/2010	24	0	0	0	0	0	0	0	0	9000	0	15	10.39
11/12/2010	24	0	0	0	0	0	0	0	0	16000	0	15	11.2
11/13/2010	24	0	0	0	0	0	0	0	0	8000	0	15	11.71
11/14/2010	24	0	0	0	0	0	0	0	0	9000	0	14	10.25
11/15/2010	24	0	0	0	0	0	0	0	0	13000	0	14	10.57
11/16/2010	24	0	0	0	0	0	0	0	0	7000	0	14	10.69
11/17/2010	24	0	0	0	0	0	0	0	0	9000	0	14	9.52
11/18/2010	24	0	0	0	0	0	0	0	0	11000	0	14	11.25
11/19/2010	24	0	0	0	0	0	0	0	0	8000	0	14	9.43
11/20/2010	24	0	0	0	0	0	0	0	0	11000	0	14	11.07
11/21/2010	24	0	0	0	0	0	0	0	0	11000	0	14	11.95
11/22/2010	24	0	0	0	0	0	0	0	0	8000	0	14	9.79
11/23/2010	24	0	0	0	0	0	0	0	0	13000	0	14	10.95
11/24/2010	24	0	0	0	0	0	0	0	0	9000	0	14	11.53
11/25/2010	24	0	0	0	0	0	0	0	0	7000	0	14	11.91
11/26/2010	24	0	0	0	0	0	0	0	0	13000	0	14	10.14
11/27/2010	24	0	0	0	0	0	0	0	0	11000	0	14	11.09
11/28/2010	24	0	0	0	0	0	0	0	0	7000	0	14	11.75
11/29/2010	24	0	0	0	0	0	0	0	0	9000	0	14	10.66
11/30/2010	24	0	0	0	0	0	0	0	0	11000	0	14	10.57
12/1/2010	24	0	0	0	0	0	0	0	0	8000	0	14	11.03
12/2/2010	24	0	0	0	0	0	0	0	0	9000	0	14	9.11
12/3/2010	24	0	0	0	0	0	0	0	0	12000	0	14	11.19
12/4/2010	24	0	0	0	0	0	0	0	0	9000	0	15	10.6
12/5/2010	24	0	0	0	0	0	0	0	0	7000	0	15	10.56
12/6/2010	24	0	0	0	0	0	0	0	0	14000	0	15	10.19
12/7/2010	24	0	0	0	0	0	0	0	0	12000	0	15	11.23
12/8/2010	24	0	0	0	0	0	0	0	0	8000	0	15	10.57
12/9/2010	24	0	0	0	0	0	0	0	0	13000	0	15	11.08
12/10/2010	24	0	0	0	0	0	0	0	0	13000	0	15	10.76
12/11/2010	24	0	0	0	0	0	0	0	0	8000	0	15	11.26
12/12/2010	24	0	0	0	0	0	0	0	0	11000	0	15	9.34
12/13/2010	24	0	0	0	0	0	0	0	0	14000	0	15	11.25
12/14/2010	24	0	0	0	0	0	0	0	0	7000	0	15	10.17
12/15/2010	24	0	0	0	0	0	0	0	0	11000	0	14	12.46
12/16/2010	24	0	0	0	0	0	0	0	0	11000	0	15	12.35
12/17/2010	24	0	0	0	0	0	0	0	0	11000	0	15	10.43
12/18/2010	24	0	0	0	0	0	0	0	0	10000	0	15	10.95
12/19/2010	24	0	0	0	0	0	0	0	0	11000	0	15	11.97
12/20/2010	24	0	0	0	0	0	0	0	0	10000	0	15	10.76
12/21/2010	24	0	0	0	0	0	0	0	0	9000	0	15	11.42
12/22/2010	24	0	0	0	0	0	0	0	0	12000	0	14	10.04
12/23/2010	24	0	0	0	0	0	0	0	0	10000	0	15	9.38
12/24/2010	24	0	0	0	0	0	0	0	0	10000	0	15	12.7
12/25/2010	24	0	0	0	0	0	0	0	0	10000	0	15	11.61
12/26/2010	24	0	0	0	0	0	0	0	0	11000	0	15	10.44
12/27/2010	24	0	0	0	0	0	0	0	0	11000	0	15	12.71
12/28/2010	24	0	0	0	0	0	0	0	0	11000	0	15	11.78
12/29/2010	24	0	0	0	0	0	0	0	0	11000	0	15	9.62
12/30/2010	24	0	0	0	0	0	0	0	0	10000	0	15	12.79
12/31/2010	24	0	0	0	0	0	0	0	0	10000	0	15	11.3

#1 = 8530 Hours Average = 23.83
#2 = 0.8 Hours Average = 0
#3 = 0 Hours Average = 0
#4 = 0 Hours Average = 0
#5 = 0 Hours Average = 0
#6 = 0 Hours Average = 0
#7 = 0 Hours Average = 0
#8 = 0 Hours Average = 0

Total Flow = 4,695,000 GAL
Flow Rate Low = 0 GPM

CHART USED TO DETERMINE OPERATING CONDITIONS
TAKEN FROM ISEWD TELEMETRY





— TANK-A < 50,000 GALLON TANK
— TANK-B < 500,000 GALLON TANK
— TANK-C < 750,000 GALLON TANK

ELEVATED STORAGE TANKS A, B AND C

72 HOUR EPS
 PUMP ON: 1157
 PUMP OFF: 1170

< PROPOSED TANK


```

***** KYPIPE5 *****
*
*           Pipe Network Modeling Software           *
*
*           Copyrighted by KYPIPE LLC               *
*           Version 5 - February 2010               *
*
*****
    
```

Date & Time: Wed Feb 26 10:00:07 2014

Master File : q:\hydata\kypipe\new tank 2010\tank analysis 2014\revised tank analysis 2010 eps.KYP\revised tank analysis 2010 eps.P2K

```

*****
SUMMARY OF ORIGINAL DATA
*****
    
```

UNITS SPECIFIED

```

FLOWRATE ..... = gallons/minute
HEAD (HGL) ..... = feet
PRESSURE ..... = psig
METERED FLOW ..... = gallons
POWER COST ..... = 0.050 $/kW-Hr
    
```

REGULATING VALVE DATA

VALVE LABEL	VALVE TYPE	VALVE SETTING (ft or gpm)
RV-1	PRV-1	1089.85
RV-2	PRV-1	1090.08
RV-R1	PRV-1	1090.08
RV-R2	PRV-1	1090.00

PIPELINE DATA

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	LENGTH (ft)	DIAMETER (in)	ROUGHNESS COEFF.	MINOR LOSS COEFF.
1	52	239	2847.56	12.00	150.0000	4.70
2	13	107	1572.75	8.00	150.0000	4.70
3	208	107	536.71	12.00	150.0000	14.10
4	208	O-Pump-1	145.95	12.00	150.0000	0.00
5	6	7	2450.00	6.00	150.0000	0.00
6	98	8	565.00	6.00	150.0000	0.00
7	101	10	1690.00	6.00	150.0000	0.00
8	99	11	600.00	6.00	150.0000	0.00
9	3	84	400.00	6.00	150.0000	0.00
10	6	9	700.00	6.00	150.0000	0.00
11	4	7	950.00	4.00	150.0000	0.00
12	7	10	1640.00	4.00	150.0000	0.00
13	4	8	1976.79	6.00	150.0000	0.00
14	8	11	1480.00	6.00	150.0000	0.00
15	10	12	2950.00	4.00	150.0000	0.00
16	12	13	2000.00	6.00	150.0000	0.00
17	12	14	2600.00	4.00	150.0000	0.00
18	15	333	1517.68	6.00	150.0000	0.00
19	TANK-A	O-AV-1	93.52	6.00	150.0000	2.00
20	16	15	600.00	6.00	150.0000	0.00
21	172	96	560.67	6.00	150.0000	0.00
22	155	331	1152.91	4.00	150.0000	0.00
23	149	19	2227.95	10.00	150.0000	0.00
24	19	20	2900.00	3.00	150.0000	0.00
25	20	21	600.00	3.00	150.0000	0.00
26	21	22	200.00	3.00	150.0000	0.00
27	22	24	1100.00	2.00	150.0000	0.00
28	21	23	1100.00	3.00	150.0000	0.00
29	23	25	1050.00	3.00	150.0000	0.00
30	24	26	1050.00	2.00	150.0000	0.00
31	25	26	200.00	3.00	150.0000	0.00
32	23	24	200.00	3.00	150.0000	0.00
33	216	286	5346.15	10.00	150.0000	0.00

USEMP Tank Analysis

34	284	27	434.89	10.00	150.0000	0.00
35	153	29	2500.00	4.00	150.0000	0.00
36	29	195	1000.00	4.00	150.0000	0.00
37	208	208	140.78	12.00	150.0000	0.00
38	3	31	10.00	6.00	150.0000	2.00
39	209	I-pump-2	142.29	12.00	150.0000	0.00
40	14	146	1740.00	6.00	150.0000	0.00
41	46	31	850.00	12.00	150.0000	2.00
42	31	47	530.00	8.00	150.0000	2.00
43	18	45	3000.00	4.00	150.0000	0.00
44	16	172	969.61	8.00	150.0000	0.00
45	35	287	2553.49	4.00	150.0000	0.00
46	34	36	1150.00	4.00	150.0000	0.00
47	49	325	2589.03	6.00	150.0000	0.00
48	46	47	900.00	8.00	150.0000	2.00
49	47	33	340.00	8.00	150.0000	0.00
50	34	37	3050.00	4.00	150.0000	0.00
51	33	38	570.00	6.00	150.0000	0.00
52	33	39	250.00	8.00	150.0000	0.00
53	38	39	1335.00	6.00	150.0000	0.00
54	39	40	740.00	8.00	150.0000	0.00
55	40	41	425.00	6.00	150.0000	0.00
56	40	42	575.00	8.00	150.0000	0.00
57	41	42	1415.00	6.00	150.0000	0.00
58	42	43	145.00	8.00	150.0000	0.00
59	91	51	1800.00	4.00	150.0000	0.00
60	66	17	9874.87	6.00	150.0000	9.00
61	91	129	500.00	6.00	150.0000	0.00
62	20	49	2000.00	4.00	150.0000	0.00
63	53	323	883.92	6.00	150.0000	0.00
64	54	55	2650.00	6.00	150.0000	0.00
65	54	56	3900.00	6.00	150.0000	0.00
66	56	57	1050.00	6.00	150.0000	0.00
67	57	58	1200.00	6.00	150.0000	0.00
68	58	327	1977.19	6.00	150.0000	0.00
69	58	60	1550.00	6.00	150.0000	0.00
70	61	60	5700.00	6.00	150.0000	0.00
71	27	49	3100.00	6.00	150.0000	0.00
72	62	61	1050.00	6.00	150.0000	0.00
73	63	32	5490.00	6.00	150.0000	0.00
74	63	133	4000.00	6.00	150.0000	0.00
75	64	63	3200.00	4.00	150.0000	0.00
76	65	277	2627.99	4.00	150.0000	0.00
77	65	82	2666.10	4.00	150.0000	0.00
78	209	I-pump-1	97.71	12.00	150.0000	0.00
79	82	83	1610.54	4.00	150.0000	0.00
80	67	97	1030.00	4.00	150.0000	0.00
81	84	52	1600.00	6.00	150.0000	0.00
82	81	85	400.00	10.00	150.0000	0.00
83	71	80	4900.00	4.00	150.0000	0.00
84	78	244	4233.41	4.00	150.0000	0.00
85	160	181	2500.00	4.00	150.0000	0.00
86	76	77	1000.00	4.00	150.0000	0.00
87	75	77	2150.00	4.00	150.0000	0.00
88	73	75	1900.00	4.00	150.0000	0.00
89	73	74	1500.00	4.00	150.0000	0.00
90	72	235	1090.18	4.00	150.0000	0.00
91	70	72	1080.00	4.00	150.0000	0.00
92	70	76	2800.00	4.00	150.0000	0.00
93	97	117	2000.00	4.00	150.0000	0.00
94	97	70	1750.00	4.00	150.0000	0.00
95	68	116	700.00	8.00	150.0000	0.00
96	68	90	800.00	4.00	150.0000	0.00
97	135	174	719.19	8.00	150.0000	3.80
98	69	128	15.00	8.00	150.0000	10.00
99	67	68	2700.00	8.00	150.0000	0.00
100	FGN-BB	69	170.00	6.00	130.0000	55.90
101	50	104	1015.00	6.00	150.0000	0.00
102	88	50	2225.00	6.00	150.0000	0.00
103	105	39	1430.00	6.00	150.0000	0.00
104	48	88	340.00	6.00	150.0000	0.00
105	106	48	785.00	6.00	150.0000	0.00
106	108	48	610.00	6.00	150.0000	0.00
107	77	71	920.00	4.00	150.0000	0.00
108	67	68	2700.00	4.00	150.0000	0.00
109	84	6	800.00	6.00	150.0000	0.00
110	85	140	800.00	10.00	150.0000	0.00
111	85	139	750.00	8.00	150.0000	0.00
112	92	46	1200.00	12.00	150.0000	0.00
113	92	81	20.00	10.00	150.0000	0.00
114	87	260	828.36	8.00	150.0000	2.00
115	194	30	2608.44	6.00	150.0000	1.50
116	29	51	1900.00	4.00	150.0000	0.00
117	332	17	4108.85	6.00	150.0000	0.00
118	123	332	1116.82	6.00	150.0000	0.00
119	123	242	2356.79	6.00	150.0000	0.00

98-CV

JSEWD Tank Analysis

120	124	167	3100.00	4.00	130.0000	0.00
121	O-AV-2	TANK-B	39.31	12.00	150.0000	0.00
122	122	253	1961.05	10.00	150.0000	2.50
123	192	207	2016.21	8.00	150.0000	1.50
124	90	185	1200.00	4.00	130.0000	0.00
125	87	43	2500.00	8.00	150.0000	0.00
126	124	37	4200.00	6.00	150.0000	0.00
127	94	71	750.00	6.00	150.0000	0.00
128	94	95	450.00	6.00	150.0000	0.00
129	I-AV-1	15	36.48	6.00	150.0000	0.00
130	94	119	3120.00	6.00	150.0000	0.00
131	86	95	2250.00	6.00	150.0000	0.00
132	95	76	440.00	6.00	150.0000	0.00
133-CV	209	208	279.75	12.00	150.0000	0.00
134	128	260	3534.86	4.00	120.0000	7.60
135	7	98	580.00	6.00	150.0000	0.00
136	98	99	1775.00	6.00	150.0000	0.00
137	11	100	475.00	6.00	150.0000	0.00
138	99	10	1170.00	6.00	150.0000	0.00
139	101	9	1000.00	6.00	150.0000	0.00
140	101	102	1100.00	6.00	150.0000	0.00
141	9	102	675.00	6.00	150.0000	0.00
142	9	103	350.00	6.00	150.0000	0.00
143	43	104	625.00	6.00	150.0000	0.00
144	104	105	860.00	6.00	150.0000	0.00
145	105	88	890.00	6.00	150.0000	0.00
146	106	47	425.00	6.00	150.0000	0.00
147	106	210	675.00	6.00	150.0000	0.00
148	210	108	715.00	12.00	150.0000	0.00
149	108	4	1300.00	12.00	150.0000	0.00
150	66	328	718.22	6.00	150.0000	2.00
151	109	110	750.00	6.00	150.0000	0.00
152	110	320	409.19	6.00	150.0000	0.00
153	111	112	700.00	6.00	150.0000	0.00
154	66	112	350.00	6.00	150.0000	0.00
155	112	113	750.00	6.00	150.0000	0.00
156	112	319	258.07	6.00	150.0000	0.00
157	234	330	220.67	8.00	150.0000	0.00
158	127	126	344.98	10.00	150.0000	0.00
159	140	52	800.00	10.00	150.0000	0.00
160	4	5	1450.00	12.00	150.0000	0.00
161	R-1	209	144.11	12.00	150.0000	0.00
162	137	294	3098.33	10.00	150.0000	1.50
163	18	149	2072.05	6.00	150.0000	1.50
164	19	284	1765.11	10.00	150.0000	1.50
165	140	139	750.00	8.00	150.0000	0.00
166	141	53	6324.12	6.00	150.0000	0.00
167	126	155	13.71	10.00	130.0000	0.00
168	200	137	14.55	10.00	130.0000	0.00
169	5	1	4201.48	12.00	150.0000	4.70
170	141	142	2112.00	6.00	150.0000	3.50
171	78	161	1835.31	6.00	150.0000	0.00
172	161	173	4000.00	6.00	150.0000	0.00
173	181	78	1949.34	6.00	150.0000	0.00
174	174	222	278.20	8.00	150.0000	0.00
175	164	118	2200.00	6.00	150.0000	0.00
176	118	117	700.00	6.00	150.0000	0.00
177	118	86	820.00	6.00	150.0000	0.00
178	119	86	3940.00	6.00	150.0000	0.00
179	92	175	1829.44	6.00	150.0000	7.60
180	176	183	575.00	8.00	150.0000	0.00
181	175	176	600.00	6.00	150.0000	0.00
182	175	177	600.00	6.00	150.0000	0.00
183	183	184	700.00	8.00	150.0000	0.00
184	196	62	3200.87	6.00	150.0000	0.00
185	16	122	2150.00	6.00	150.0000	0.00
186	128	121	495.00	4.00	150.0000	1.00
187	177	183	600.00	6.00	150.0000	0.00
188	16	122	2010.00	8.00	150.0000	2.10
189	184	174	500.00	8.00	150.0000	0.00
190	177	184	1000.00	6.00	150.0000	0.00
191	185	165	800.00	12.00	140.0000	0.00
192	125	326	936.84	10.00	150.0000	4.00
193	314	165	937.25	8.00	150.0000	0.00
194	68	90	800.00	8.00	150.0000	2.10
195	165	119	6100.00	6.00	150.0000	0.00
196	171	312	928.59	6.00	130.0000	0.00
197	170	171	2103.85	6.00	150.0000	0.00
198	180	186	1059.61	6.00	150.0000	0.00
199	186	187	2132.93	6.00	150.0000	0.00
200	187	I-RV-1	488.30	6.00	150.0000	0.00
201	145	188	1403.45	6.00	150.0000	2.30
202	4	189	688.30	6.00	150.0000	0.00
203	88	191	1166.85	6.00	150.0000	0.00
204	189	191	505.01	6.00	150.0000	0.00
205	191	197	961.25	6.00	150.0000	0.00

JSEWD Tank Analysis

206	197	50	886.74	6.00	150.0000	0.00
207	197	198	1090.54	6.00	150.0000	0.00
208	197	199	499.88	6.00	150.0000	0.00
209	199	202	1104.61	6.00	150.0000	0.00
210	199	158	800.00	6.00	150.0000	0.00
211	115	127	901.39	4.00	150.0000	0.00
212-XX	69	128	15.00	2.00	150.0000	5.00
213	203	317	388.34	6.00	150.0000	0.00
214	134	141	1200.00	6.00	150.0000	2.00
215	30	134	2200.00	6.00	150.0000	2.00
216	129	93	450.00	6.00	150.0000	2.00
217	129	130	2300.00	6.00	150.0000	2.00
218	130	131	1700.00	6.00	150.0000	2.00
219	56	132	900.00	6.00	150.0000	1.00
220	133	61	1400.00	6.00	150.0000	2.00
221	128	138	600.00	8.00	150.0000	4.00
222	92	176	2200.00	8.00	150.0000	8.64
223	138	135	30.00	6.00	150.0000	9.60
224	204	203	1359.37	4.00	150.0000	0.00
225	204	310	1527.15	6.00	150.0000	0.00
226	205	206	1145.98	6.00	150.0000	0.00
227	205	203	2111.36	6.00	150.0000	0.00
228	207	219	1698.51	8.00	150.0000	0.00
229	207	250	701.01	6.00	150.0000	0.00
230	211	212	2005.89	6.00	150.0000	0.00
231	212	1	1472.83	6.00	150.0000	0.00
232	151	213	2317.84	6.00	150.0000	0.00
233	82	214	981.14	6.00	150.0000	0.00
234	214	215	1714.24	6.00	150.0000	0.00
235	215	151	1044.08	6.00	150.0000	0.00
236	214	215	1773.79	6.00	150.0000	0.00
237	285	28	1124.37	10.00	150.0000	0.00
238	216	218	995.43	6.00	150.0000	3.00
239	217	231	648.98	6.00	150.0000	0.00
240	218	228	806.86	6.00	150.0000	0.00
241	127	143	1465.00	4.00	150.0000	4.90
242	29	144	200.00	2.00	150.0000	2.90
243	14	145	200.00	4.00	150.0000	2.30
244	146	44	480.00	6.00	150.0000	2.30
245	146	147	800.00	6.00	150.0000	2.30
246	44	148	820.00	6.00	150.0000	2.30
247	83	282	2200.31	6.00	150.0000	4.60
248	83	150	2187.98	6.00	150.0000	4.00
249	150	151	2280.06	6.00	150.0000	2.20
250	153	152	1050.00	4.00	150.0000	2.00
251	28	153	300.00	4.00	150.0000	1.10
252	72	154	1480.00	4.00	150.0000	2.90
253	288	216	793.52	10.00	150.0000	0.00
254	156	66	650.00	6.00	150.0000	2.00
255	64	157	4155.70	4.00	150.0000	1.50
256	5	158	1400.00	4.00	130.0000	1.50
257	75	159	720.00	4.00	130.0000	1.50
258	219	314	3028.83	8.00	150.0000	0.00
259	165	220	1798.80	6.00	150.0000	0.00
260	220	221	1235.98	6.00	150.0000	0.00
261	220	221	1238.62	6.00	150.0000	0.00
262	220	251	1376.27	6.00	150.0000	0.00
263	77	160	1400.00	4.00	130.0000	2.00
264	222	87	1222.60	8.00	150.0000	0.00
265	184	223	258.83	6.00	150.0000	0.00
266	223	222	394.05	6.00	150.0000	0.00
267	176	224	321.17	6.00	150.0000	0.00
268	90	162	1000.00	6.00	130.0000	4.00
269	136	162	930.00	6.00	130.0000	2.50
270	163	162	1125.00	6.00	130.0000	3.50
271	136	163	360.00	6.00	130.0000	0.50
272	163	164	282.00	6.00	130.0000	0.80
273	136	164	1020.00	6.00	130.0000	3.10
274	116	136	350.00	6.00	130.0000	0.50
275	223	224	1360.35	6.00	150.0000	0.00
276	285	284	239.29	10.00	150.0000	0.00
277	227	225	749.09	6.00	150.0000	0.00
278	226	64	1294.34	4.00	150.0000	0.00
279	90	185	1200.00	8.00	140.0000	2.90
280	226	225	4000.00	6.00	150.0000	0.00
281	96	167	2988.15	4.00	150.0000	0.00
282	115	127	900.00	10.00	130.0000	0.90
283	166	124	1200.00	4.00	130.0000	1.50
284	167	34	3200.00	4.00	130.0000	1.50
285	168	169	1400.00	4.00	130.0000	1.50
286	65	168	1200.00	4.00	130.0000	1.50
287	227	283	1296.85	6.00	150.0000	0.00
288	170	171	506.08	6.00	130.0000	1.50
289	127	329	2936.44	4.00	130.0000	1.50
290	80	179	2650.00	6.00	150.0000	1.50
291	179	180	1495.10	6.00	150.0000	3.00

JSEMP Tank Analysis

292	181	78	2300.00	4.00	150.0000	1.50
293	181	182	1700.00	6.00	150.0000	1.50
294	31	210	810.63	12.00	150.0000	0.00
295	1	334	2484.13	12.00	150.0000	0.00
296	333	2	864.41	6.00	150.0000	4.70
297	225	229	2054.14	6.00	150.0000	0.00
298	218	228	2562.32	6.00	150.0000	6.00
299	228	217	722.51	6.00	150.0000	0.00
300	218	292	815.37	6.00	150.0000	0.00
301	170	178	1000.00	6.00	130.0000	1.50
302	201	267	683.60	6.00	130.0000	1.50
303	O-RV-R1	201	10.00	4.00	130.0000	0.75
304	O-RV-R2	200	10.00	6.00	130.0000	0.75
305	217	231	1599.56	6.00	150.0000	0.00
306	231	265	575.39	6.00	150.0000	0.00
307	196	230	1600.00	6.00	150.0000	9.00
308	120	49	1600.00	6.00	150.0000	0.00
309	230	120	2650.00	6.00	150.0000	0.00
310	230	120	2700.00	6.00	150.0000	0.00
311	55	232	1676.90	6.00	150.0000	0.00
312	232	321	2872.09	6.00	150.0000	0.00
313	123	234	926.33	6.00	130.0000	0.00
314	235	73	2079.82	4.00	150.0000	0.00
315	235	236	1753.11	6.00	150.0000	0.00
316	97	237	1988.28	6.00	150.0000	0.00
317	145	238	3439.89	6.00	130.0000	1.50
318	12	14	1423.01	6.00	150.0000	0.00
319	190	16	1800.00	8.00	130.0000	0.00
320	89	192	2100.00	8.00	130.0000	1.50
321	193	276	802.92	6.00	130.0000	3.00
322	286	285	1449.66	10.00	150.0000	0.00
323	194	51	625.00	6.00	130.0000	1.50
324	194	93	3500.00	6.00	150.0000	1.50
325	195	196	1842.36	6.00	150.0000	3.00
326	195	30	1500.00	6.00	130.0000	0.00
327	14	145	626.29	6.00	150.0000	2.30
328	239	107	2786.36	12.00	150.0000	0.00
329	239	785.30	785.30	6.00	150.0000	9.40
330	240	102	804.73	6.00	150.0000	0.00
331	242	245	620.65	6.00	150.0000	0.00
332	242	243	1354.14	6.00	150.0000	0.00
333	243	124	687.53	6.00	150.0000	0.00
334	O-RV-1	193	2532.31	6.00	150.0000	0.00
335	I-RV-2	125	4437.75	6.00	150.0000	0.00
336-XX	331	115	151.49	6.00	150.0000	0.00
337-XX	333	190	178.62	6.00	150.0000	0.00
338	89	I-AV-2	30.69	12.00	150.0000	0.00
339	244	79	918.36	4.00	150.0000	0.00
340	248	238	1271.24	6.00	150.0000	0.00
341	291	167	1686.06	12.00	150.0000	4.00
342	250	211	1623.75	6.00	150.0000	0.00
343	251	219	323.73	6.00	150.0000	0.00
344	251	250	1790.74	6.00	150.0000	0.00
345	192	252	1510.04	6.00	130.0000	0.00
346	190	252	2222.23	6.00	130.0000	0.00
347	252	250	1786.66	6.00	130.0000	0.00
348	253	89	1088.95	10.00	150.0000	0.00
349	253	192	2494.92	6.00	150.0000	2.50
350	198	254	1058.03	6.00	150.0000	0.00
351	254	255	715.41	6.00	150.0000	0.00
352	256	261	1475.59	10.00	150.0000	0.00
353	256	255	268.72	6.00	150.0000	2.00
354	254	257	576.56	6.00	150.0000	0.00
355	257	258	1064.79	6.00	130.0000	0.00
356	258	259	1563.02	6.00	130.0000	0.00
357	259	257	1126.59	6.00	130.0000	0.00
358	260	256	1103.07	10.00	150.0000	0.00
359	259	260	190.36	6.00	150.0000	2.00
360	261	67	2279.79	8.00	150.0000	0.00
361	262	228	739.01	6.00	150.0000	0.00
362	262	263	623.26	6.00	150.0000	0.00
363	263	264	480.37	6.00	150.0000	0.00
364	265	O-RV-2	313.69	6.00	150.0000	0.00
365	263	265	981.23	6.00	150.0000	0.00
366	222	300	498.50	6.00	150.0000	11.40
367	296	266	844.74	6.00	150.0000	0.00
368	267	168	1316.40	6.00	130.0000	0.00
369	267	272	1359.71	6.00	130.0000	7.50
370	268	289	1061.73	6.00	130.0000	0.00
371	269	268	1008.26	6.00	130.0000	0.00
372	269	271	1704.77	6.00	130.0000	3.00
373	271	270	684.10	6.00	130.0000	0.00
374	270	269	1704.42	6.00	130.0000	0.00
375	272	271	792.79	6.00	130.0000	0.00
376	236	74	2481.05	6.00	150.0000	0.00
377	256	274	978.51	6.00	150.0000	7.60

JSEWD Tank Analysis

378	273	237	852.00	6.00	150.0000	0.00
379	274	273	1538.58	6.00	150.0000	0.00
380	274	275	450.54	6.00	150.0000	7.60
381	276	268	985.15	6.00	130.0000	0.00
382	277	204	1628.35	4.00	150.0000	0.00
383	277	278	1235.76	6.00	150.0000	0.00
384	278	279	1205.45	6.00	150.0000	0.00
385	278	280	1478.76	6.00	150.0000	0.00
386	289	65	2150.20	6.00	130.0000	0.00
387	281	280	1596.72	6.00	150.0000	0.00
388	282	32	4362.15	6.00	130.0000	0.00
389	283	229	723.00	6.00	150.0000	0.00
390	282	283	1039.85	6.00	130.0000	1.50
391	287	286	489.52	6.00	150.0000	0.00
392	18	288	2203.94	6.00	150.0000	0.00
393	310	205	1040.49	6.00	150.0000	0.00
394	279	310	1346.09	6.00	150.0000	0.00
395	200	288	3927.83	4.00	150.0000	13.50
396	122	332	3782.65	6.00	150.0000	0.00
397	331	17	1651.95	6.00	150.0000	0.00
398	330	172	3865.69	8.00	150.0000	0.00
399	321	233	1289.26	6.00	150.0000	0.00
400	290	339	3581.07	6.00	150.0000	0.00
401	290	291	1310.32	6.00	131.8326	0.00
402	15	338	880.59	12.00	150.0000	0.00
403	292	262	753.68	6.00	150.0000	0.00
404	292	293	949.20	6.00	150.0000	0.00
405	294	288	718.86	10.00	150.0000	0.00
406	293	294	727.50	6.00	150.0000	1.50
407	293	295	514.70	6.00	150.0000	3.00
408	295	297	1965.71	6.00	150.0000	1.50
409	295	264	1212.65	6.00	150.0000	1.50
410	264	297	1133.74	6.00	150.0000	1.50
411	296	298	1188.85	6.00	150.0000	3.80
412	299	296	485.88	6.00	150.0000	0.00
413	273	301	2033.09	6.00	150.0000	22.80
414	266	299	1322.21	6.00	150.0000	0.00
415	266	301	2517.78	6.00	150.0000	0.00
416	301	298	406.56	6.00	150.0000	0.00
417	300	299	1896.99	6.00	150.0000	0.00
418	13	302	379.61	6.00	150.0000	0.00
419	302	303	544.15	6.00	150.0000	0.00
420	302	306	1025.43	6.00	150.0000	0.00
421	304	102	663.55	6.00	150.0000	0.00
422	304	240	258.38	6.00	150.0000	0.00
423	303	309	375.31	6.00	150.0000	0.00
424	303	308	760.28	6.00	150.0000	0.00
425	306	305	590.36	6.00	150.0000	0.00
426	305	304	1426.99	6.00	150.0000	0.00
427	307	304	660.11	6.00	150.0000	0.00
428	305	307	1018.44	6.00	150.0000	0.00
429	308	306	531.76	6.00	150.0000	0.00
430	309	307	1056.64	6.00	150.0000	0.00
431	255	311	888.13	6.00	150.0000	4.00
432	261	67	1971.29	4.00	120.0000	0.00
433	311	261	439.17	6.00	150.0000	0.00
434	312	109	365.33	6.00	130.0000	0.00
435	312	313	497.67	6.00	130.0000	0.00
436	186	315	4737.70	6.00	140.0000	0.00
437	114	315	568.21	6.00	140.0000	0.00
438	315	316	1850.47	6.00	140.0000	0.00
439	316	156	239.08	6.00	140.0000	0.00
440	316	314	5395.46	6.00	140.0000	0.00
441	317	226	905.99	6.00	150.0000	0.00
442	317	318	2336.81	6.00	150.0000	0.00
443	318	206	1716.75	6.00	150.0000	0.00
444	313	110	1422.51	6.00	150.0000	0.00
445	113	156	330.31	6.00	150.0000	0.00
446	319	114	201.93	6.00	150.0000	0.00
447	319	59	481.31	6.00	150.0000	0.00
448	111	59	248.52	6.00	150.0000	0.00
449	330	115	6864.89	8.00	150.0000	0.00
450	233	321	1289.26	6.00	150.0000	0.00
451	321	322	4343.86	6.00	150.0000	0.00
452	323	54	3016.08	6.00	150.0000	0.00
453	322	323	5147.69	6.00	150.0000	0.00
454	322	324	1505.02	6.00	150.0000	0.00
455	142	30	4608.91	6.00	150.0000	0.00
456	325	32	1760.97	6.00	150.0000	0.00
457	325	25	2653.81	6.00	150.0000	0.00
458	326	115	2813.16	10.00	150.0000	0.00
459	326	241	5529.53	6.00	150.0000	16.00
460	327	132	897.92	6.00	150.0000	0.00
461	320	111	190.81	6.00	150.0000	0.00
462	328	109	176.74	6.00	150.0000	0.00
463	328	320	384.90	6.00	150.0000	2.00

JSEWD Tank Analysis

464	110	313	348.77	6.00	150.0000	0.00
465	332	122	3795.23	8.00	150.0000	0.00
466	334	190	1378.67	12.00	150.0000	0.00
467	333	338	715.33	6.00	131.8326	0.00
468	2	334	154.83	12.00	150.0000	0.00
469	291	339	3422.44	12.00	150.0000	0.00
470	291	TANK-C	50.00	12.00	150.0000	4.00
472	245	241	735.48	6.00	150.0000	0.00
473	338	339	334.85	12.00	150.0000	0.00
474-XX	245	166	180.91	6.00	150.0000	12.00

P U M P / L O S S E L E M E N T D A T A

THERE IS A DEVICE AT NODE Pump-1 DESCRIBED BY THE FOLLOWING DATA: (ID= 1)

HEAD (ft)	FLOWRATE (gpm)	EFFICIENCY (%)
96.00	0.00	0.00
90.00	500.00	75.00
74.00	800.00	81.00
59.00	1000.00	75.00
21.00	1300.00	55.00

THERE IS A DEVICE AT NODE Pump-2> (ID= 1)

N O D E D A T A

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	JUNCTION ELEVATION (ft)	EXTERNAL GRADE (ft)
1	Aldridge Far	0.68	985.00	
2		0.00	980.00	
3		0.00	977.00	
4	US-68 & Bran	0.21	997.00	
5	US-68 @ Oris	2.10	1000.00	
6	Intrn&oldcoc	4.99	970.00	
7		7.64	1000.00	
8	Lantern Ct	2.67	1020.00	
9		0.50	970.00	
10		1.43	1000.00	
11		3.29	1020.00	
12		1.74	955.00	
13		1.32	927.00	
14		1.74	968.00	
15		1.19	1032.00	
16		1.64	1028.00	
17		10.89	979.00	
18	US68 & Barkl	4.51	955.00	
19	US68 & KY29	1.44	949.00	
20		0.28	870.00	
21		0.40	887.00	
22		0.40	887.00	
23		0.40	877.00	
24		0.40	877.00	
25	Murphy Ln EO	0.40	870.00	
26		0.40	870.00	
27	US68 & CC rd	2.03	936.00	
28		0.00	927.00	
29		0.61	900.00	
30		5.07	898.00	
31		0.00	977.00	
32	Clear&Richar	4.73	875.00	
33		0.07	996.00	
34		1.87	995.00	
35		0.24	900.00	
36	Catnip Hill	0.24	990.00	
37	end o Sagart	2.23	990.00	
38		0.21	984.00	
39		1.39	985.00	
40		0.34	992.00	
41		0.44	986.00	
42		1.03	988.00	
43		0.97	996.00	
44		0.43	970.00	
45	BARKLEY EST	3.47	910.00	
46		0.94	968.00	
47		0.56	991.00	
48		4.08	975.00	
49		3.72	920.00	

50	End of Fores	4.85	986.00
51	Roseglade Fa	1.35	935.00
52	End of Wynfr	2.70	940.00
53		3.38	798.00
54	Pekin & Trot	4.05	914.00
55		1.35	885.00
56		1.69	830.00
57		1.01	830.00
58		1.01	825.00
59	Keene	0.57	920.00
60		0.68	800.00
61		1.35	896.00
62		1.69	865.00
63		0.68	895.00
64	KY 1267 & Mc	4.05	889.00
65	Clear&KenTro	3.45	873.00
66	Keene 4 way	4.35	905.00
67		0.54	992.00
68		4.18	955.00
69		1.96	955.00
70		2.05	940.00
71		0.00	935.00
72		2.06	950.00
73		3.52	930.00
74		0.95	940.00
75		3.86	940.00
76		0.64	980.00
77	DF & Woods R	6.08	970.00
78	James Ln & D	5.72	928.00
79	James Lane E	3.44	915.00
80		3.71	947.00
81	us68 @ wynfr	0.00	965.00
82	CC Rd @ Chan	2.11	922.00
83	CC Rd @ CCE	2.23	913.00
84	Oldcoh&wdbri	2.37	950.00
85	wynfre&access	1.35	970.00
86		5.68	935.00
87		0.65	990.00
88	Spgcrst&Thou	3.79	995.00
89		0.00	1005.00
90		0.88	970.00
91		0.92	950.00
92	Bellerive ti	1.01	965.00
93	EOL KY 29	0.92	952.00
94		5.41	963.00
95		2.72	990.00
96		0.00	1033.00
97		4.72	958.00
98		0.66	1010.00
99		3.29	1010.00
100		0.81	1020.00
101		4.53	990.00
102		2.20	975.00
103		0.97	965.00
104		2.70	1003.00
105		3.52	1016.00
106		3.79	990.00
107		0.00	950.00
108		1.14	972.00
109	1267 @ Kings	1.70	895.00
110	Kingston	0.74	905.00
111	Keenesway	0.70	922.00
112	King @ Cemet	1.74	931.00
113	Kingston	1.37	935.00
114	Cemetery	0.30	948.00
115		0.26	950.00
116		0.00	961.00
117		0.61	950.00
118		0.47	950.00
119	Champions	7.54	950.00
120	Walden	1.18	900.00
121		0.68	950.00
122		0.68	980.00
123	Mattews Ln	0.68	950.00
124	Rhinehammer	0.00	1000.00
125	KY 169	0.84	940.00
126	10"PRV upstr	0.00	970.00
127		1.82	950.00
128		0.07	955.00
129		0.81	935.00
130		0.00	890.00
131	Drakes Ln EO	0.81	935.00
132	Tankersly	1.35	830.00
133		0.00	810.00
134		3.04	885.00
135		0.00	975.00

JSEWD Tank Analysis

136		1.35	955.00
137	10"PRV dnstr	0.00	970.00
138		0.00	970.00
139	BELLARIVE PL	1.35	970.00
140		1.35	965.00
141	ICHTHUS & 68	0.68	850.00
142	ICHTHUS	1.69	885.00
143		1.35	958.00
144		4.39	885.00
145	Bran @ Chris	0.93	960.00
146		1.35	935.00
147		1.35	940.00
148		0.68	950.00
149	US 68	0.00	940.00
150	CCE unit 1	2.23	925.00
151	CCE unit2	2.64	901.00
152		2.70	927.00
153		0.00	927.00
154		1.01	950.00
155	PRV2	0.00	970.00
156	1267 @ Canad	1.35	898.00
157	KY1267 EOL	1.35	840.00
158	End of Ponde	3.99	1000.00
159	End of Tashm	3.14	940.00
160		6.76	941.00
161	Hawks Pt & D	3.07	905.00
162		2.70	975.00
163		0.68	960.00
164		0.68	958.00
165	12" Cambrige	4.02	972.00
166	Rhinehammer	2.70	990.00
167		0.34	995.00
168		0.00	880.00
169		3.38	880.00
170	KT @ Liberty	2.03	890.00
171	KT @ Liberty	2.03	890.00
172	catnip @ 68	0.00	1020.00
173	Stirling Est	3.07	850.00
174	S. Elk Rd @	1.35	985.00
175	Wind Haven &	1.18	945.00
176	Windward Way	2.03	970.00
177	Windy Knoll	2.03	950.00
178	PRV1	0.00	875.00
179	Woods Rd Est	2.10	891.00
180	Longnecker F	0.34	920.00
181	Parker & Del	2.37	895.00
182	End of Parke	2.60	915.00
183	Windy Knoll	1.35	975.00
184	Wind Haven D	2.03	960.00
185	12"-8" Cambr	0.00	963.00
186	Woods Rd @ 1	1.35	925.00
187	Clear Ck @ 1	0.20	925.00
188	Pannel Ext.	0.34	955.00
189	W.Brannon @	2.43	1005.00
190	US68 & Harod	0.00	998.00
191	W.Brannon @	1.82	985.00
192	Steel Estate	2.22	1028.00
193	EOL Clear Ck	1.01	850.00
194	Bicknell Ln	0.00	920.00
195	McCauley & US	0.51	898.00
196	McCauley rd	0.71	910.00
197	W.Brannon @	2.84	1003.00
198	W.Brannon @	1.82	975.00
199	Foaling Rg	2.03	985.00
200	dwnstrm PRV	0.00	970.00
201	dwnstrm PRV	0.00	875.00
202		1.62	980.00
203	KTroy @ Colo	2.64	870.00
204		2.84	850.00
205	Colonial Est	4.87	850.00
206	Colonial Est	3.04	840.00
207	Widows Watch	0.00	980.00
208		0.00	990.00
209		0.00	990.00
210		0.23	960.00
211	Keene Manor	4.05	1010.00
212	Keene Manor	5.07	960.00
213	CCE unit 2	1.01	860.00
214	Chandamere	3.04	919.00
215	Chandamere	3.04	910.00
216	US 68 @ Bark	0.00	935.00
217	Bark Woods	2.60	960.00
218	Sgate@Deerfi	4.26	920.00
219	Perkins	0.00	980.00
220	Cambridge Ea	2.97	970.00
221	Cambridge Ea	2.70	976.00

JSEWD Tank Analysis

222	Windhaven@KY	0.61	985.00
223	Wind Hav @ W	2.03	975.00
224	Windward@Woo	2.64	980.00
225	Hollaway	3.04	920.00
226	KY1267 from	0.00	885.00
227	Hollaway Est	1.42	890.00
228	Stonegate@St	3.68	921.00
229	Hollaway Est	2.03	870.00
230	Walden	1.89	875.00
231	tugger cul d	1.89	905.00
232	Hagin @ Peki	0.47	871.00
233	Hagin EOL	1.18	940.00
234		0.68	950.00
235	Del Woods	0.68	945.00
236	Lot 20 DW	0.00	935.00
237	Emerald Est	2.60	965.00
238	Chris Haven	0.93	1030.00
239	Morgan @ Bel	2.43	960.00
240	Morgan Dr	1.01	975.00
241	FH on Ramsey	0.00	980.00
242		0.00	930.00
243		0.00	980.00
244		0.00	950.00
245		0.00	930.00
248	EOL Chris Ha	0.00	1002.00
250		4.51	1000.00
251		2.64	980.00
252	Harrods Ridg	3.16	1020.00
253		1.26	1020.00
254		1.26	989.00
255	W. Brannon L	0.95	984.00
256	KY1267	0.00	980.00
257	Eq Lakes	1.58	980.00
258		2.22	1003.00
259		1.39	970.00
260		0.00	970.00
261		0.00	935.00
262	BW	1.08	935.00
263	BW unit 7	1.08	930.00
264	BW unit 7	1.08	935.00
265	BW unit 7	0.45	895.00
266	Cambrig Nort	1.97	950.00
267	Cave Run @ K	0.00	855.00
268	Clear Cr Tie	0.00	825.00
269	Cave Run Cr	1.26	855.00
270	Cave Run Cr	0.95	900.00
271	Cave Run Cr	1.26	880.00
272	Cave Run Blv	1.74	855.00
273	Renaissance	1.82	940.00
274	Renasnce	1.06	946.00
275	Renasance	0.61	953.00
276		0.00	820.00
277	K-T @ The Oa	0.00	863.00
278	The Oaks	1.29	835.00
279	The Oaks	1.57	820.00
280	The Oaks	1.72	830.00
281	The Oaks	1.57	830.00
282	Clear C @ Ho	1.01	920.00
283	Holloway	0.00	880.00
284		0.00	940.00
285		0.00	940.00
286	US 68 @ KY 2	0.00	950.00
287	KY 29	0.00	960.00
288		2.84	925.00
289		0.00	875.00
290	Forest Hills	4.93	1020.00
291	Forest Hills	1.89	1016.00
292	BW	0.00	915.00
293	BW7	0.54	940.00
294	BW7 @ US68	0.00	900.00
295	BW7	0.97	953.00
296	Cambrig Nort	1.06	950.00
297	BW7	1.08	905.00
298	Cambrig Nort	1.51	990.00
299	Cambrig Nort	2.73	955.00
300	Cambrig Nort	0.00	1007.00
301	Cambrig Nort	0.00	986.00
302	Clays xing	2.84	950.00
303	Clays xing	2.84	950.00
304	Clays xing	3.12	975.00
305	Clays xing	4.26	976.00
306	Clays xing	2.84	980.00
307	Clays xing	4.83	950.00
308	Clays xing	2.84	975.00
309	Clays xing	4.26	950.00
310		0.00	840.00

JSEWD Tank Analysis

311	The Lakes II	1.58	960.00	
312	1267 @ Cush	0.28	895.00	
313	Cushingberry	0.57	910.00	
314		0.00	950.00	
315	Cemetery@169	0.43	923.00	
316	Keene 1267 @	0.00	911.00	
317	1267@Ebeneze	0.00	857.00	
318	Ebenezer Chu	0.28	810.00	
319	Keene	1.28	930.00	
320	Kingston @ K	0.28	915.00	
321	Hagin Ln Pek	0.28	920.00	
322	Pekin Ln	0.57	745.00	
323	KY 33 Pekin	0.28	810.00	
324	Pekin Ln EOL	0.85	850.00	
325	Clear Creek	0.00	920.00	
326	KY 169 Rhine	0.84	930.00	
327		0.28	870.00	
328	1267 in Keen	0.28	895.00	
329		0.28	970.00	
330		0.00	950.00	
331		0.00	958.00	
332		0.00	985.00	
333		0.00	998.00	
334		0.00	980.00	
338		0.00	1000.00	
339		0.00	1000.00	
O-AV-1	Altitude Val	0.00	1026.00	
I-AV-2		0.00	0.00	
FGN-BB		----	955.00	1139.00
I-Pump-1	perless 1240	0.00	990.00	
I-Pump-2	perless 1240	0.00	990.00	
R-1	KAWC Tank	----	985.00	1150.00
I-RV-1		0.00	920.00	
I-RV-2	Barkley W. P	0.00	890.00	
I-RV-R1	Keene PRV	0.00	875.00	
I-RV-R2	US 68 PRV	0.00	970.00	
TANK-A	Old Tank	----	1026.00	1165.00
TANK-B	New Tank - P	----	1015.00	1165.00
TANK-C	Chinkapin Ta	----	1025.00	1165.00
O-Pump-1	perless 1240	0.00	990.00	
O-Pump-2	perless 1240	0.00	990.00	
O-AV-2		0.00	0.00	
I-AV-1	Altitude Val	0.00	1026.00	
O-RV-R1	Keene PRV	----	875.00	1090.08
O-RV-R2	US 68 PRV	----	970.00	1090.00
O-RV-1		----	920.00	1089.85
O-RV-2	Barkley W. P	----	890.00	1090.08

OUTPUT OPTION DATA

OUTPUT SELECTION: THE FOLLOWING RESULTS ARE INCLUDED IN THE TABULATED OUTPUT

ALL CLOSED PIPES ARE NOTED
ALL PIPES WITH PUMPS

FOLLOWING PIPES

2
3
120
123
169
281
284
320
328
338
341
348
469
473

FOLLOWING JUNCTION NODES

36
66
79
131
157
173
182
217
233

MAXIMUM AND MINIMUM PRESSURES = 10
MAXIMUM AND MINIMUM HEAD LOSS/1000 = 5

EPS DATA

TOTAL TIME FOR SIMULATION = 71.000
 NORMAL TIME PERIOD FOR CALCULATIONS = 0.250
 NORMAL TIME PERIOD FOR TABULATED OUTPUT = 1.000
 NORMAL TIME PERIOD FOR POSTPROCESSING FILE = 0.250

EPS OUTPUT SELECTION: THE ABOVE TABULATED OUTPUT OPTIONS ARE INCLUDED
 WITH THE FOLLOWING EXTENDED PERIOD PRINT OPTIONS

INTERMEDIATE REPORTS (tank status, flow meter, regulating valve, etc.)
 SUPPRESSED FOR ALL INTERMEDIATE TIME PERIODS
 SUPPRESSED FOR ALL STATUS CHANGES (tanks, pressure switches, etc.)

VARIABLE HEAD TANK DATA

TANK NAME (*)	MAXIMUM ELEVATION (ft)	MINIMUM ELEVATION (ft)	TANK CAPACITY (gal)	INITIAL VOLUME (gal)	EXTERNAL FLOW (gpm)
TANK-A(1)	1169.20	1153.00	54826.	40612.	0.00
TANK-B(1)	1171.00	1135.00	528802.	440668.	0.00
TANK-C(1)	1171.00	1133.00	803779.	676867.	0.00

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

PRESSURE SWITCH DATA

REFERENCE ELEMENT	REFERENCE NODE	SWITCHING GRADES (ft)
Pump-1	291	1157.00 & 1170.00
AV-1	15	1133.00 & 1168.00
AV-2	89	1133.00 & 1170.00

SYSTEM CONFIGURATION

NUMBER OF PIPES(p) = 473
 NUMBER OF END NODES(j) = 339
 NUMBER OF PRIMARY LOOPS(l) = 130
 NUMBER OF SUPPLY NODES(f) = 5
 NUMBER OF SUPPLY ZONES(z) = 1

P U M P / L O S S E L E M E N T D A T A

THERE IS A DEVICE AT NODE Pump-1 DESCRIBED BY THE FOLLOWING DATA: (ID= 1)

HEAD (ft)	FLOWRATE (gpm)	EFFICIENCY (%)
96.00	0.00	0.00
90.00	500.00	75.00
74.00	800.00	81.00
59.00	1000.00	75.00
21.00	1300.00	55.00

THERE IS A DEVICE AT NODE Pump-2> (ID= 1)

TIME FROM INITIATION OF EPS = 0.0000 HOURS

TIME FROM INITIATION OF EPS = 0.0001 HOURS

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1093.82	159.44	207.96	48.5	70.16	13.	0.0	0.0	**	**	192.5

TIME FROM INITIATION OF EPS = 0.2500 HOURS

TIME FROM INITIATION OF EPS = 0.5000 HOURS

TIME FROM INITIATION OF EPS = 0.7500 HOURS

TIME FROM INITIATION OF EPS = 1.0000 HOURS

Pump-1	1024.98	149.51	205.87	56.4	73.84	15.	0.2	0.7	**	**	182.6
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TIME FROM INITIATION OF EPS = 1.2500 HOURS

TIME FROM INITIATION OF EPS = 1.5000 HOURS

TIME FROM INITIATION OF EPS = 1.7500 HOURS

TIME FROM INITIATION OF EPS = 1.7500 HOURS

TIME FROM INITIATION OF EPS = 2.0000 HOURS

Pump-1	1118.41	167.42	212.96	45.5	68.68	13.	0.2	1.6	**	**	200.5
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TIME FROM INITIATION OF EPS = 2.0000 HOURS

Pump-1	1063.52	167.47	219.54	52.1	71.87	14.	0.2	1.8	**	**	200.5
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TIME FROM INITIATION OF EPS = 2.2500 HOURS

TIME FROM INITIATION OF EPS = 2.5000 HOURS

TIME FROM INITIATION OF EPS = 2.7500 HOURS

TIME FROM INITIATION OF EPS = 2.7500 HOURS

TIME FROM INITIATION OF EPS = 2.7500 HOURS

TIME FROM INITIATION OF EPS = 3.0000 HOURS

TIME FROM INITIATION OF EPS = 3.2500 HOURS

TIME FROM INITIATION OF EPS = 3.5000 HOURS

TIME FROM INITIATION OF EPS = 3.7500 HOURS

TIME FROM INITIATION OF EPS = 4.0000 HOURS

Pump Report

TIME FROM INITIATION OF EPS = 4.2500 HOURS
TIME FROM INITIATION OF EPS = 4.5000 HOURS
TIME FROM INITIATION OF EPS = 4.7500 HOURS
TIME FROM INITIATION OF EPS = 5.0000 HOURS
TIME FROM INITIATION OF EPS = 5.2500 HOURS
TIME FROM INITIATION OF EPS = 5.2500 HOURS
TIME FROM INITIATION OF EPS = 5.5000 HOURS
TIME FROM INITIATION OF EPS = 5.7500 HOURS
TIME FROM INITIATION OF EPS = 6.0000 HOURS
TIME FROM INITIATION OF EPS = 6.2500 HOURS
TIME FROM INITIATION OF EPS = 6.5000 HOURS
TIME FROM INITIATION OF EPS = 6.7500 HOURS
TIME FROM INITIATION OF EPS = 7.0000 HOURS
TIME FROM INITIATION OF EPS = 7.2500 HOURS
TIME FROM INITIATION OF EPS = 7.5000 HOURS
TIME FROM INITIATION OF EPS = 7.7500 HOURS
TIME FROM INITIATION OF EPS = 8.0000 HOURS
TIME FROM INITIATION OF EPS = 8.2500 HOURS
TIME FROM INITIATION OF EPS = 8.5000 HOURS
TIME FROM INITIATION OF EPS = 8.7500 HOURS
TIME FROM INITIATION OF EPS = 9.0000 HOURS
TIME FROM INITIATION OF EPS = 9.2500 HOURS
TIME FROM INITIATION OF EPS = 9.5000 HOURS
TIME FROM INITIATION OF EPS = 9.7500 HOURS
TIME FROM INITIATION OF EPS = 10.0000 HOURS
TIME FROM INITIATION OF EPS = 10.2500 HOURS
TIME FROM INITIATION OF EPS = 10.5000 HOURS
TIME FROM INITIATION OF EPS = 10.7500 HOURS
TIME FROM INITIATION OF EPS = 11.0000 HOURS
TIME FROM INITIATION OF EPS = 11.2500 HOURS
TIME FROM INITIATION OF EPS = 11.5000 HOURS
TIME FROM INITIATION OF EPS = 11.7500 HOURS
TIME FROM INITIATION OF EPS = 12.0000 HOURS
TIME FROM INITIATION OF EPS = 12.2500 HOURS
TIME FROM INITIATION OF EPS = 12.5000 HOURS
TIME FROM INITIATION OF EPS = 12.7500 HOURS
TIME FROM INITIATION OF EPS = 13.0000 HOURS
TIME FROM INITIATION OF EPS = 13.2500 HOURS
TIME FROM INITIATION OF EPS = 13.5000 HOURS

TIME FROM INITIATION OF EPS = 13.7500 HOURS
 TIME FROM INITIATION OF EPS = 14.0000 HOURS
 TIME FROM INITIATION OF EPS = 14.2500 HOURS
 TIME FROM INITIATION OF EPS = 14.5000 HOURS
 TIME FROM INITIATION OF EPS = 14.7500 HOURS
 TIME FROM INITIATION OF EPS = 15.0000 HOURS
 TIME FROM INITIATION OF EPS = 15.2500 HOURS
 TIME FROM INITIATION OF EPS = 15.5000 HOURS
 TIME FROM INITIATION OF EPS = 15.7500 HOURS
 TIME FROM INITIATION OF EPS = 16.0000 HOURS
 TIME FROM INITIATION OF EPS = 16.2500 HOURS
 TIME FROM INITIATION OF EPS = 16.5000 HOURS
 TIME FROM INITIATION OF EPS = 16.7500 HOURS
 TIME FROM INITIATION OF EPS = 17.0000 HOURS
 TIME FROM INITIATION OF EPS = 17.2500 HOURS
 TIME FROM INITIATION OF EPS = 17.5000 HOURS
 TIME FROM INITIATION OF EPS = 17.7500 HOURS
 TIME FROM INITIATION OF EPS = 18.0000 HOURS
 TIME FROM INITIATION OF EPS = 18.0000 HOURS
 Pump-1 1164.96 149.38 189.03 39.6 65.64 12. 0.2 2.5
 TIME FROM INITIATION OF EPS = 18.2500 HOURS
 TIME FROM INITIATION OF EPS = 18.5000 HOURS
 TIME FROM INITIATION OF EPS = 18.7500 HOURS
 TIME FROM INITIATION OF EPS = 19.0000 HOURS
 Pump-1 970.26 121.56 183.54 62.0 76.26 15. 0.2 3.2
 TIME FROM INITIATION OF EPS = 19.2500 HOURS
 TIME FROM INITIATION OF EPS = 19.5000 HOURS
 TIME FROM INITIATION OF EPS = 19.7500 HOURS
 TIME FROM INITIATION OF EPS = 20.0000 HOURS
 Pump-1 958.67 121.56 184.66 63.1 76.72 15. 0.2 3.9
 TIME FROM INITIATION OF EPS = 20.2500 HOURS
 TIME FROM INITIATION OF EPS = 20.5000 HOURS
 TIME FROM INITIATION OF EPS = 20.7500 HOURS
 TIME FROM INITIATION OF EPS = 21.0000 HOURS
 Pump-1 1017.32 130.51 187.70 57.2 74.20 15. 0.2 4.7
 TIME FROM INITIATION OF EPS = 21.2500 HOURS
 TIME FROM INITIATION OF EPS = 21.5000 HOURS
 TIME FROM INITIATION OF EPS = 21.7500 HOURS
 TIME FROM INITIATION OF EPS = 22.0000 HOURS
 Pump-1 1067.06 140.47 192.13 51.7 71.68 14. 0.2 5.4
 TIME FROM INITIATION OF EPS = 22.2500 HOURS
 TIME FROM INITIATION OF EPS = 22.5000 HOURS

TIME FROM INITIATION OF EPS =	22.7500 HOURS							
TIME FROM INITIATION OF EPS =	23.0000 HOURS							
Pump-1	1079.56	149.46	199.66	50.2	70.98	14.	0.2	6.1
TIME FROM INITIATION OF EPS =	23.2500 HOURS							
TIME FROM INITIATION OF EPS =	23.5000 HOURS							
TIME FROM INITIATION OF EPS =	23.7500 HOURS							
TIME FROM INITIATION OF EPS =	24.0000 HOURS							
Pump-1	1140.49	163.40	206.18	42.8	67.28	12.	0.2	6.9
TIME FROM INITIATION OF EPS =	24.2500 HOURS							
TIME FROM INITIATION OF EPS =	24.5000 HOURS							
TIME FROM INITIATION OF EPS =	24.7500 HOURS							
TIME FROM INITIATION OF EPS =	25.0000 HOURS							
Pump-1	1051.83	149.48	202.88	53.4	72.49	14.	0.2	7.6
TIME FROM INITIATION OF EPS =	25.2500 HOURS							
TIME FROM INITIATION OF EPS =	25.5000 HOURS							
TIME FROM INITIATION OF EPS =	25.7500 HOURS							
TIME FROM INITIATION OF EPS =	26.0000 HOURS							
Pump-1	1143.94	167.40	209.74	42.3	67.05	12.	0.2	8.3
TIME FROM INITIATION OF EPS =	26.2500 HOURS							
TIME FROM INITIATION OF EPS =	26.5000 HOURS							
TIME FROM INITIATION OF EPS =	26.7500 HOURS							
TIME FROM INITIATION OF EPS =	27.0000 HOURS							
Pump-1	1092.84	158.45	207.08	48.6	70.22	13.	0.2	9.0
TIME FROM INITIATION OF EPS =	27.2500 HOURS							
TIME FROM INITIATION OF EPS =	27.5000 HOURS							
TIME FROM INITIATION OF EPS =	27.7500 HOURS							
TIME FROM INITIATION OF EPS =	28.0000 HOURS							
Pump-1	1055.75	151.48	204.43	53.0	72.28	14.	0.2	9.7
TIME FROM INITIATION OF EPS =	28.2500 HOURS							
TIME FROM INITIATION OF EPS =	28.5000 HOURS							
TIME FROM INITIATION OF EPS =	28.7500 HOURS							
TIME FROM INITIATION OF EPS =	29.0000 HOURS							
Pump-1	991.74	142.54	202.38	59.8	75.36	15.	0.2	10.4
TIME FROM INITIATION OF EPS =	29.2500 HOURS							
TIME FROM INITIATION OF EPS =	29.2500 HOURS							
TIME FROM INITIATION OF EPS =	29.5000 HOURS							
TIME FROM INITIATION OF EPS =	29.5000 HOURS							
TIME FROM INITIATION OF EPS =	29.7500 HOURS							
TIME FROM INITIATION OF EPS =	30.0000 HOURS							
Pump-1	1015.77	137.52	194.86	57.3	74.28	15.	0.2	11.5
TIME FROM INITIATION OF EPS =	30.0000 HOURS							
Pump-1	1009.09	137.52	195.57	58.1	74.59	15.	0.2	11.7
TIME FROM INITIATION OF EPS =	30.2500 HOURS							

TIME FROM INITIATION OF EPS = 30.5000 HOURS
TIME FROM INITIATION OF EPS = 30.7500 HOURS
TIME FROM INITIATION OF EPS = 31.0000 HOURS
Pump-1 1062.77 146.47 198.63 52.2 71.91 14. 0.2 12.4
TIME FROM INITIATION OF EPS = 31.2500 HOURS
TIME FROM INITIATION OF EPS = 31.5000 HOURS
TIME FROM INITIATION OF EPS = 31.7500 HOURS
TIME FROM INITIATION OF EPS = 32.0000 HOURS
Pump-1 1110.61 158.43 204.92 46.5 69.16 13. 0.2 13.2
TIME FROM INITIATION OF EPS = 32.2500 HOURS
TIME FROM INITIATION OF EPS = 32.2500 HOURS
TIME FROM INITIATION OF EPS = 32.5000 HOURS
TIME FROM INITIATION OF EPS = 32.7500 HOURS
TIME FROM INITIATION OF EPS = 32.7500 HOURS
TIME FROM INITIATION OF EPS = 32.7500 HOURS
TIME FROM INITIATION OF EPS = 33.0000 HOURS
TIME FROM INITIATION OF EPS = 33.2500 HOURS
TIME FROM INITIATION OF EPS = 33.5000 HOURS
TIME FROM INITIATION OF EPS = 33.7500 HOURS
TIME FROM INITIATION OF EPS = 34.0000 HOURS
TIME FROM INITIATION OF EPS = 34.2500 HOURS
TIME FROM INITIATION OF EPS = 34.5000 HOURS
TIME FROM INITIATION OF EPS = 34.7500 HOURS
TIME FROM INITIATION OF EPS = 35.0000 HOURS
TIME FROM INITIATION OF EPS = 35.0000 HOURS
TIME FROM INITIATION OF EPS = 35.2500 HOURS
TIME FROM INITIATION OF EPS = 35.5000 HOURS
TIME FROM INITIATION OF EPS = 35.7500 HOURS
TIME FROM INITIATION OF EPS = 36.0000 HOURS
TIME FROM INITIATION OF EPS = 36.2500 HOURS
TIME FROM INITIATION OF EPS = 36.5000 HOURS
TIME FROM INITIATION OF EPS = 36.7500 HOURS
TIME FROM INITIATION OF EPS = 37.0000 HOURS
TIME FROM INITIATION OF EPS = 37.2500 HOURS
TIME FROM INITIATION OF EPS = 37.5000 HOURS
TIME FROM INITIATION OF EPS = 37.7500 HOURS
TIME FROM INITIATION OF EPS = 38.0000 HOURS
TIME FROM INITIATION OF EPS = 38.2500 HOURS
TIME FROM INITIATION OF EPS = 38.5000 HOURS
TIME FROM INITIATION OF EPS = 38.7500 HOURS

Pump Report

TIME FROM INITIATION OF EPS = 39.0000 HOURS
 TIME FROM INITIATION OF EPS = 39.2500 HOURS
 TIME FROM INITIATION OF EPS = 39.5000 HOURS
 TIME FROM INITIATION OF EPS = 39.7500 HOURS
 TIME FROM INITIATION OF EPS = 40.0000 HOURS
 TIME FROM INITIATION OF EPS = 40.2500 HOURS
 TIME FROM INITIATION OF EPS = 40.5000 HOURS
 TIME FROM INITIATION OF EPS = 40.7500 HOURS
 TIME FROM INITIATION OF EPS = 41.0000 HOURS
 TIME FROM INITIATION OF EPS = 41.2500 HOURS
 TIME FROM INITIATION OF EPS = 41.5000 HOURS
 TIME FROM INITIATION OF EPS = 41.7500 HOURS
 TIME FROM INITIATION OF EPS = 42.0000 HOURS
 TIME FROM INITIATION OF EPS = 42.2500 HOURS
 TIME FROM INITIATION OF EPS = 42.5000 HOURS
 TIME FROM INITIATION OF EPS = 42.7500 HOURS
 TIME FROM INITIATION OF EPS = 43.0000 HOURS
 TIME FROM INITIATION OF EPS = 43.2500 HOURS
 TIME FROM INITIATION OF EPS = 43.5000 HOURS
 TIME FROM INITIATION OF EPS = 43.7500 HOURS
 TIME FROM INITIATION OF EPS = 44.0000 HOURS
 TIME FROM INITIATION OF EPS = 44.2500 HOURS
 TIME FROM INITIATION OF EPS = 44.5000 HOURS
 TIME FROM INITIATION OF EPS = 44.7500 HOURS
 TIME FROM INITIATION OF EPS = 45.0000 HOURS
 TIME FROM INITIATION OF EPS = 45.2500 HOURS
 TIME FROM INITIATION OF EPS = 45.5000 HOURS
 TIME FROM INITIATION OF EPS = 45.7500 HOURS
 TIME FROM INITIATION OF EPS = 46.0000 HOURS
 TIME FROM INITIATION OF EPS = 46.2500 HOURS
 TIME FROM INITIATION OF EPS = 46.5000 HOURS
 TIME FROM INITIATION OF EPS = 46.7500 HOURS
 TIME FROM INITIATION OF EPS = 47.0000 HOURS
 TIME FROM INITIATION OF EPS = 47.2500 HOURS
 TIME FROM INITIATION OF EPS = 47.2500 HOURS
 TIME FROM INITIATION OF EPS = 47.5000 HOURS
 TIME FROM INITIATION OF EPS = 47.7500 HOURS
 TIME FROM INITIATION OF EPS = 48.0000 HOURS
 Pump-1 1156.24 163.38 204.16 40.8 66.23 12. 0.2 14.6
 TIME FROM INITIATION OF EPS = 48.2500 HOURS

TIME FROM INITIATION OF EPS =	48.5000	HOURS							
TIME FROM INITIATION OF EPS =	48.7500	HOURS							
TIME FROM INITIATION OF EPS =	49.0000	HOURS							
Pump-1	1068.92	149.47	200.91	51.4	71.57	14.	0.2	15.3	
TIME FROM INITIATION OF EPS =	49.2500	HOURS							
TIME FROM INITIATION OF EPS =	49.5000	HOURS							
TIME FROM INITIATION OF EPS =	49.7500	HOURS							
TIME FROM INITIATION OF EPS =	50.0000	HOURS							
Pump-1	1159.05	167.38	207.80	40.4	66.04	12.	0.2	16.0	
TIME FROM INITIATION OF EPS =	50.2500	HOURS							
TIME FROM INITIATION OF EPS =	50.5000	HOURS							
TIME FROM INITIATION OF EPS =	50.7500	HOURS							
TIME FROM INITIATION OF EPS =	51.0000	HOURS							
Pump-1	1108.67	158.43	205.16	46.7	69.28	13.	0.2	16.7	
TIME FROM INITIATION OF EPS =	51.2500	HOURS							
TIME FROM INITIATION OF EPS =	51.5000	HOURS							
TIME FROM INITIATION OF EPS =	51.7500	HOURS							
TIME FROM INITIATION OF EPS =	52.0000	HOURS							
Pump-1	1072.30	151.46	202.52	51.1	71.39	14.	0.2	17.4	
TIME FROM INITIATION OF EPS =	52.2500	HOURS							
TIME FROM INITIATION OF EPS =	52.5000	HOURS							
TIME FROM INITIATION OF EPS =	52.7500	HOURS							
TIME FROM INITIATION OF EPS =	53.0000	HOURS							
Pump-1	1041.25	142.49	197.07	54.6	73.03	14.	0.2	18.1	
TIME FROM INITIATION OF EPS =	53.2500	HOURS							
TIME FROM INITIATION OF EPS =	53.5000	HOURS							
TIME FROM INITIATION OF EPS =	53.7500	HOURS							
TIME FROM INITIATION OF EPS =	54.0000	HOURS							
Pump-1	1016.94	135.51	192.74	57.2	74.22	15.	0.2	18.8	
TIME FROM INITIATION OF EPS =	54.2500	HOURS							
TIME FROM INITIATION OF EPS =	54.5000	HOURS							
TIME FROM INITIATION OF EPS =	54.7500	HOURS							
TIME FROM INITIATION OF EPS =	55.0000	HOURS							
Pump-1	1082.81	146.45	196.28	49.8	70.80	14.	0.2	19.6	
TIME FROM INITIATION OF EPS =	55.2500	HOURS							
TIME FROM INITIATION OF EPS =	55.5000	HOURS							
TIME FROM INITIATION OF EPS =	55.7500	HOURS							
TIME FROM INITIATION OF EPS =	56.0000	HOURS							
Pump-1	1129.42	158.41	202.58	44.2	67.99	13.	0.2	20.3	
TIME FROM INITIATION OF EPS =	56.2500	HOURS							
TIME FROM INITIATION OF EPS =	56.5000	HOURS							
TIME FROM INITIATION OF EPS =	56.7500	HOURS							
TIME FROM INITIATION OF EPS =	57.0000	HOURS							

Pump-1	1186.12	172.35	209.23	36.9	64.15	11.	0.2	21.0	**	**	205.4
TIME FROM INITIATION OF EPS = 57.2500 HOURS											
TIME FROM INITIATION OF EPS = 57.5000 HOURS											
TIME FROM INITIATION OF EPS = 57.5000 HOURS											
TIME FROM INITIATION OF EPS = 57.7500 HOURS											
TIME FROM INITIATION OF EPS = 58.0000 HOURS											
Pump-1	1167.59	170.37	209.68	39.3	65.45	12.	0.2	21.8	**	**	203.4
TIME FROM INITIATION OF EPS = 58.2500 HOURS											
TIME FROM INITIATION OF EPS = 58.5000 HOURS											
TIME FROM INITIATION OF EPS = 58.5000 HOURS											
TIME FROM INITIATION OF EPS = 58.7500 HOURS											
TIME FROM INITIATION OF EPS = 59.0000 HOURS											
Pump-1	1165.51	167.38	206.95	39.6	65.60	12.	0.2	22.6	**	**	200.4
TIME FROM INITIATION OF EPS = 59.2500 HOURS											
TIME FROM INITIATION OF EPS = 59.5000 HOURS											
TIME FROM INITIATION OF EPS = 59.5000 HOURS											
TIME FROM INITIATION OF EPS = 59.5000 HOURS											
TIME FROM INITIATION OF EPS = 59.5000 HOURS											
TIME FROM INITIATION OF EPS = 59.7500 HOURS											
TIME FROM INITIATION OF EPS = 60.0000 HOURS											
TIME FROM INITIATION OF EPS = 60.2500 HOURS											
TIME FROM INITIATION OF EPS = 60.5000 HOURS											
TIME FROM INITIATION OF EPS = 60.7500 HOURS											
TIME FROM INITIATION OF EPS = 61.0000 HOURS											
TIME FROM INITIATION OF EPS = 61.2500 HOURS											
TIME FROM INITIATION OF EPS = 61.2500 HOURS											
TIME FROM INITIATION OF EPS = 61.5000 HOURS											
TIME FROM INITIATION OF EPS = 61.7500 HOURS											
TIME FROM INITIATION OF EPS = 62.0000 HOURS											
TIME FROM INITIATION OF EPS = 62.2500 HOURS											
TIME FROM INITIATION OF EPS = 62.5000 HOURS											
TIME FROM INITIATION OF EPS = 62.7500 HOURS											
TIME FROM INITIATION OF EPS = 63.0000 HOURS											
TIME FROM INITIATION OF EPS = 63.2500 HOURS											
TIME FROM INITIATION OF EPS = 63.5000 HOURS											
TIME FROM INITIATION OF EPS = 63.7500 HOURS											
TIME FROM INITIATION OF EPS = 64.0000 HOURS											
TIME FROM INITIATION OF EPS = 64.2500 HOURS											
TIME FROM INITIATION OF EPS = 64.5000 HOURS											
TIME FROM INITIATION OF EPS = 64.7500 HOURS											

TIME FROM INITIATION OF EPS = 65.0000 HOURS
TIME FROM INITIATION OF EPS = 65.2500 HOURS
TIME FROM INITIATION OF EPS = 65.5000 HOURS
TIME FROM INITIATION OF EPS = 65.7500 HOURS
TIME FROM INITIATION OF EPS = 66.0000 HOURS
TIME FROM INITIATION OF EPS = 66.2500 HOURS
TIME FROM INITIATION OF EPS = 66.5000 HOURS
TIME FROM INITIATION OF EPS = 66.7500 HOURS
TIME FROM INITIATION OF EPS = 67.0000 HOURS
TIME FROM INITIATION OF EPS = 67.2500 HOURS
TIME FROM INITIATION OF EPS = 67.5000 HOURS
TIME FROM INITIATION OF EPS = 67.7500 HOURS
TIME FROM INITIATION OF EPS = 68.0000 HOURS
TIME FROM INITIATION OF EPS = 68.2500 HOURS
TIME FROM INITIATION OF EPS = 68.5000 HOURS
TIME FROM INITIATION OF EPS = 68.7500 HOURS
TIME FROM INITIATION OF EPS = 69.0000 HOURS
TIME FROM INITIATION OF EPS = 69.2500 HOURS
TIME FROM INITIATION OF EPS = 69.5000 HOURS
TIME FROM INITIATION OF EPS = 69.7500 HOURS
TIME FROM INITIATION OF EPS = 70.0000 HOURS
TIME FROM INITIATION OF EPS = 70.2500 HOURS
TIME FROM INITIATION OF EPS = 70.5000 HOURS
TIME FROM INITIATION OF EPS = 70.7500 HOURS
TIME FROM INITIATION OF EPS = 71.0000 HOURS

VARIABLE HEAD TANK DATA

TANK NAME (*)	MAXIMUM ELEVATION (ft)	MINIMUM ELEVATION (ft)	TANK CAPACITY (gal)	INITIAL VOLUME (gal)	EXTERNAL FLOW (gpm)
TANK-A(1)	1169.20	1153.00	54826.	40612.	0.00
TANK-B(1)	1171.00	1135.00	528802.	440668.	0.00
TANK-C(1)	1171.00	1133.00	803779.	676867.	0.00

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

TIME FROM INITIATION OF EPS = 0.0001 HOURS

TANK STATUS REPORT (time = 0.0001 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	120.87	1165.00	12.00	40612.	74.1	FILLING	12.54
TANK-B(1)	519.97	1165.00	30.00	440668.	83.3	FILLING	30.53
TANK-C(1)	401.53	1165.00	32.00	676867.	84.2	FILLING	32.28

TIME FROM INITIATION OF EPS = 0.2500 HOURS

TIME FROM INITIATION OF EPS = 0.5000 HOURS

TIME FROM INITIATION OF EPS = 0.7500 HOURS

TIME FROM INITIATION OF EPS = 1.0000 HOURS

TANK-A(1)	81.56	1166.89	13.89	47001.	85.7	FILLING	14.25
TANK-B(1)	456.43	1167.07	32.07	471094.	89.1	FILLING	32.54
TANK-C(1)	435.54	1166.21	33.21	702366.	87.4	FILLING	33.51

TIME FROM INITIATION OF EPS = 1.2500 HOURS

TIME FROM INITIATION OF EPS = 1.5000 HOURS

TIME FROM INITIATION OF EPS = 1.7500 HOURS

TIME FROM INITIATION OF EPS = 2.0000 HOURS

TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	0.00	1168.91	33.91	498072.	94.2		33.91
TANK-C(1)	1012.07	1167.51	34.51	729968.	90.8	FILLING	35.23

TIME FROM INITIATION OF EPS = 2.2500 HOURS

TIME FROM INITIATION OF EPS = 2.5000 HOURS

TIME FROM INITIATION OF EPS = 2.7500 HOURS

TIME FROM INITIATION OF EPS = 3.0000 HOURS

TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	30.21	1169.02	34.02	499753.	94.5	FILLING	34.05
TANK-C(1)	-158.83	1169.54	36.54	772888.	96.2	DRAINING	36.43

TIME FROM INITIATION OF EPS = 3.2500 HOURS

TIME FROM INITIATION OF EPS = 3.5000 HOURS

TIME FROM INITIATION OF EPS = 3.7500 HOURS

TIME FROM INITIATION OF EPS = 4.0000 HOURS

TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	-117.64	1169.03	34.03	499829.	94.5	DRAINING	33.91
TANK-C(1)	-139.59	1169.17	36.17	765096.	95.2	DRAINING	36.07

TIME FROM INITIATION OF EPS = 4.2500 HOURS

TIME FROM INITIATION OF EPS = 4.5000 HOURS

TIME FROM INITIATION OF EPS = 4.7500 HOURS

TIME FROM INITIATION OF EPS = 5.0000 HOURS

TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	-323.79	1168.56	33.56	492976.	93.2	DRAINING	33.23
TANK-C(1)	-319.30	1168.77	35.77	756515.	94.1	DRAINING	35.54

TIME FROM INITIATION OF EPS = 5.2500 HOURS

TIME FROM INITIATION OF EPS = 5.5000 HOURS

TIME FROM INITIATION OF EPS = 5.7500 HOURS

TIME FROM INITIATION OF EPS = 6.0000 HOURS

TANK-A(1)	-98.12	1167.55	14.55	49236.	89.8	DRAINING	14.11
TANK-B(1)	-493.24	1167.29	32.29	474315.	89.7	DRAINING	31.79
TANK-C(1)	-437.58	1167.89	34.89	737951.	91.8	DRAINING	34.58

TIME FROM INITIATION OF EPS = 6.2500 HOURS

TIME FROM INITIATION OF EPS = 6.5000 HOURS

TIME FROM INITIATION OF EPS = 6.7500 HOURS

TIME FROM INITIATION OF EPS = 7.0000 HOURS

TANK-A(1)	-67.41	1165.93	12.93	43743.	79.8	DRAINING	12.63
TANK-B(1)	-400.69	1165.31	30.31	445276.	84.2	DRAINING	29.90
TANK-C(1)	-432.22	1166.60	33.60	710747.	88.4	DRAINING	33.30

TIME FROM INITIATION OF EPS = 7.2500 HOURS

TIME FROM INITIATION OF EPS = 7.5000 HOURS

TIME FROM INITIATION OF EPS = 7.7500 HOURS							
TIME FROM INITIATION OF EPS = 8.0000 HOURS							
TANK-A(1)	-23.58	1164.69	11.69	39547.	72.1	DRAINING	11.58
TANK-B(1)	-185.51	1163.70	28.70	421641.	79.7	DRAINING	28.52
TANK-C(1)	-356.82	1165.36	32.36	684558.	85.2	DRAINING	32.11
TIME FROM INITIATION OF EPS = 8.2500 HOURS							
TIME FROM INITIATION OF EPS = 8.5000 HOURS							
TIME FROM INITIATION OF EPS = 8.7500 HOURS							
TIME FROM INITIATION OF EPS = 9.0000 HOURS							
TANK-A(1)	-18.54	1163.98	10.98	37168.	67.8	DRAINING	10.90
TANK-B(1)	9.52	1162.94	27.94	410418.	77.6	FILLING	27.95
TANK-C(1)	-276.43	1164.40	31.40	664206.	82.6	DRAINING	31.21
TIME FROM INITIATION OF EPS = 9.2500 HOURS							
TIME FROM INITIATION OF EPS = 9.5000 HOURS							
TIME FROM INITIATION OF EPS = 9.7500 HOURS							
TIME FROM INITIATION OF EPS = 10.0000 HOURS							
TANK-A(1)	-39.32	1163.52	10.52	35613.	65.0	DRAINING	10.35
TANK-B(1)	-121.75	1162.90	27.90	409842.	77.5	DRAINING	27.78
TANK-C(1)	-224.79	1163.71	30.71	649589.	80.8	DRAINING	30.55
TIME FROM INITIATION OF EPS = 10.2500 HOURS							
TIME FROM INITIATION OF EPS = 10.5000 HOURS							
TIME FROM INITIATION OF EPS = 10.7500 HOURS							
TIME FROM INITIATION OF EPS = 11.0000 HOURS							
TANK-A(1)	-78.65	1162.88	9.88	33438.	61.0	DRAINING	9.53
TANK-B(1)	-353.47	1162.38	27.38	402236.	76.1	DRAINING	27.02
TANK-C(1)	-339.58	1163.08	30.08	636219.	79.2	DRAINING	29.84
TIME FROM INITIATION OF EPS = 11.2500 HOURS							
TIME FROM INITIATION OF EPS = 11.5000 HOURS							
TIME FROM INITIATION OF EPS = 11.7500 HOURS							
TIME FROM INITIATION OF EPS = 12.0000 HOURS							
TANK-A(1)	-38.34	1161.66	8.66	29306.	53.5	DRAINING	8.49
TANK-B(1)	-219.08	1161.01	26.01	382067.	72.3	DRAINING	25.79
TANK-C(1)	-308.50	1162.09	29.09	615350.	76.6	DRAINING	28.87
TIME FROM INITIATION OF EPS = 12.2500 HOURS							
TIME FROM INITIATION OF EPS = 12.5000 HOURS							
TIME FROM INITIATION OF EPS = 12.7500 HOURS							
TIME FROM INITIATION OF EPS = 13.0000 HOURS							
TANK-A(1)	-41.77	1160.88	7.88	26657.	48.6	DRAINING	7.69
TANK-B(1)	-183.73	1160.12	25.12	369032.	69.8	DRAINING	24.94
TANK-C(1)	-288.97	1161.23	28.23	597079.	74.3	DRAINING	28.02
TIME FROM INITIATION OF EPS = 13.2500 HOURS							
TIME FROM INITIATION OF EPS = 13.5000 HOURS							
TIME FROM INITIATION OF EPS = 13.7500 HOURS							
TIME FROM INITIATION OF EPS = 14.0000 HOURS							
TANK-A(1)	-16.29	1160.10	7.10	24041.	43.8	DRAINING	7.03
TANK-B(1)	-6.25	1159.37	24.37	357934.	67.7	DRAINING	24.36
TANK-C(1)	-234.69	1160.42	27.42	579925.	72.1	DRAINING	27.25
TIME FROM INITIATION OF EPS = 14.2500 HOURS							
TIME FROM INITIATION OF EPS = 14.5000 HOURS							
TIME FROM INITIATION OF EPS = 14.7500 HOURS							
TIME FROM INITIATION OF EPS = 15.0000 HOURS							
TANK-A(1)	-38.15	1159.69	6.69	22631.	41.3	DRAINING	6.52
TANK-B(1)	-143.28	1159.26	24.26	356308.	67.4	DRAINING	24.11
TANK-C(1)	-204.42	1159.83	26.83	567526.	70.6	DRAINING	26.69
TIME FROM INITIATION OF EPS = 15.2500 HOURS							
TIME FROM INITIATION OF EPS = 15.5000 HOURS							
TIME FROM INITIATION OF EPS = 15.7500 HOURS							
TIME FROM INITIATION OF EPS = 16.0000 HOURS							
TANK-A(1)	-63.92	1159.07	6.07	20530.	37.4	DRAINING	5.78
TANK-B(1)	-290.87	1158.67	23.67	347676.	65.7	DRAINING	23.37
TANK-C(1)	-288.30	1159.24	26.24	555108.	69.1	DRAINING	26.04
TIME FROM INITIATION OF EPS = 16.2500 HOURS							
TIME FROM INITIATION OF EPS = 16.5000 HOURS							
TIME FROM INITIATION OF EPS = 16.7500 HOURS							
TIME FROM INITIATION OF EPS = 17.0000 HOURS							
TANK-A(1)	-100.38	1158.04	5.04	17059.	31.1	DRAINING	4.60
TANK-B(1)	-482.00	1157.51	22.51	330598.	62.5	DRAINING	22.01
TANK-C(1)	-446.56	1158.39	25.39	537072.	66.8	DRAINING	25.07
TIME FROM INITIATION OF EPS = 17.2500 HOURS							

TIME FROM INITIATION OF EPS = 17.5000 HOURS							
TIME FROM INITIATION OF EPS = 17.7500 HOURS							
TIME FROM INITIATION OF EPS = 18.0000 HOURS							
TANK-A(1)	95.91	1156.38	3.38	11453.	20.9	FILLING	3.81
TANK-B(1)	189.21	1155.57	20.57	302171.	57.1	FILLING	20.76
TANK-C(1)	-149.10	1157.08	24.06	509367.	63.4	DRAINING	23.98
TIME FROM INITIATION OF EPS = 18.2500 HOURS							
TIME FROM INITIATION OF EPS = 18.5000 HOURS							
TIME FROM INITIATION OF EPS = 18.7500 HOURS							
TIME FROM INITIATION OF EPS = 19.0000 HOURS							
TANK-A(1)	-19.13	1157.00	4.00	13530.	24.7	DRAINING	3.91
TANK-B(1)	174.50	1156.25	21.25	312072.	59.0	FILLING	21.42
TANK-C(1)	43.18	1156.90	23.90	505514.	62.9	FILLING	23.93
TIME FROM INITIATION OF EPS = 19.2500 HOURS							
TIME FROM INITIATION OF EPS = 19.5000 HOURS							
TIME FROM INITIATION OF EPS = 19.7500 HOURS							
TIME FROM INITIATION OF EPS = 20.0000 HOURS							
TANK-A(1)	30.13	1157.12	4.12	13949.	25.4	FILLING	4.26
TANK-B(1)	171.75	1156.86	21.86	321061.	60.7	FILLING	22.03
TANK-C(1)	113.69	1157.01	24.01	507965.	63.2	FILLING	24.10
TIME FROM INITIATION OF EPS = 20.2500 HOURS							
TIME FROM INITIATION OF EPS = 20.5000 HOURS							
TIME FROM INITIATION OF EPS = 20.7500 HOURS							
TIME FROM INITIATION OF EPS = 21.0000 HOURS							
TANK-A(1)	35.53	1157.58	4.58	15487.	28.2	FILLING	4.73
TANK-B(1)	174.78	1157.51	22.51	330600.	62.5	FILLING	22.69
TANK-C(1)	163.93	1157.38	24.38	515736.	64.2	FILLING	24.50
TIME FROM INITIATION OF EPS = 21.2500 HOURS							
TIME FROM INITIATION OF EPS = 21.5000 HOURS							
TIME FROM INITIATION OF EPS = 21.7500 HOURS							
TIME FROM INITIATION OF EPS = 22.0000 HOURS							
TANK-A(1)	53.90	1158.14	5.14	17400.	31.7	FILLING	5.38
TANK-B(1)	253.05	1158.19	23.19	340626.	64.4	FILLING	23.45
TANK-C(1)	245.64	1157.88	24.88	526159.	65.5	FILLING	25.05
TIME FROM INITIATION OF EPS = 22.2500 HOURS							
TIME FROM INITIATION OF EPS = 22.5000 HOURS							
TIME FROM INITIATION OF EPS = 22.7500 HOURS							
TIME FROM INITIATION OF EPS = 23.0000 HOURS							
TANK-A(1)	94.18	1159.00	6.00	20316.	37.1	FILLING	6.42
TANK-B(1)	452.42	1159.19	24.19	355323.	67.2	FILLING	24.65
TANK-C(1)	404.34	1158.60	25.60	541577.	67.4	FILLING	25.89
TIME FROM INITIATION OF EPS = 23.2500 HOURS							
TIME FROM INITIATION OF EPS = 23.5000 HOURS							
TIME FROM INITIATION OF EPS = 23.7500 HOURS							
TIME FROM INITIATION OF EPS = 24.0000 HOURS							
TANK-A(1)	98.27	1160.53	7.53	25498.	46.5	FILLING	7.97
TANK-B(1)	503.78	1160.99	25.99	381826.	72.2	FILLING	26.51
TANK-C(1)	487.00	1159.79	26.79	566744.	70.5	FILLING	27.14
TIME FROM INITIATION OF EPS = 24.2500 HOURS							
TIME FROM INITIATION OF EPS = 24.5000 HOURS							
TIME FROM INITIATION OF EPS = 24.7500 HOURS							
TIME FROM INITIATION OF EPS = 25.0000 HOURS							
TANK-A(1)	77.32	1162.20	9.20	31126.	56.8	FILLING	9.54
TANK-B(1)	434.81	1163.01	28.01	411452.	77.8	FILLING	28.45
TANK-C(1)	488.25	1161.21	28.21	596618.	74.2	FILLING	28.55
TIME FROM INITIATION OF EPS = 25.2500 HOURS							
TIME FROM INITIATION OF EPS = 25.5000 HOURS							
TIME FROM INITIATION OF EPS = 25.7500 HOURS							
TIME FROM INITIATION OF EPS = 26.0000 HOURS							
TANK-A(1)	94.84	1163.59	10.59	35854.	65.4	FILLING	11.01
TANK-B(1)	471.27	1164.75	29.75	437062.	82.7	FILLING	30.24
TANK-C(1)	526.38	1162.60	29.60	626089.	77.9	FILLING	29.97
TIME FROM INITIATION OF EPS = 26.2500 HOURS							
TIME FROM INITIATION OF EPS = 26.5000 HOURS							
TIME FROM INITIATION OF EPS = 26.7500 HOURS							
TIME FROM INITIATION OF EPS = 27.0000 HOURS							
TANK-A(1)	74.52	1165.24	12.24	41415.	75.5	FILLING	12.57
TANK-B(1)	382.71	1166.65	31.65	464899.	87.9	FILLING	32.04
TANK-C(1)	506.99	1164.11	31.11	658029.	81.9	FILLING	31.47
TIME FROM INITIATION OF EPS = 27.2500 HOURS							

TIME FROM INITIATION OF EPS = 27.5000 HOURS							
TIME FROM INITIATION OF EPS = 27.7500 HOURS							
TIME FROM INITIATION OF EPS = 28.0000 HOURS							
TANK-A(1)	60.52	1166.60	13.60	46038.	84.0	FILLING	13.87
TANK-B(1)	271.49	1168.19	33.19	487596.	92.2	FILLING	33.47
TANK-C(1)	466.50	1165.54	32.54	688371.	85.6	FILLING	32.87
TIME FROM INITIATION OF EPS = 28.2500 HOURS							
TIME FROM INITIATION OF EPS = 28.5000 HOURS							
TIME FROM INITIATION OF EPS = 28.7500 HOURS							
TIME FROM INITIATION OF EPS = 29.0000 HOURS							
TANK-A(1)	60.79	1167.75	14.75	49911.	91.0	FILLING	15.02
TANK-B(1)	237.56	1169.31	34.31	503952.	95.3	FILLING	34.55
TANK-C(1)	436.16	1166.85	33.85	715895.	89.1	FILLING	34.15
TIME FROM INITIATION OF EPS = 29.2500 HOURS							
TIME FROM INITIATION OF EPS = 29.5000 HOURS							
TIME FROM INITIATION OF EPS = 29.7500 HOURS							
TIME FROM INITIATION OF EPS = 30.0000 HOURS							
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	-177.49	1169.81	34.81	511357.	96.7	DRAINING	34.63
TANK-C(1)	157.64	1168.49	35.49	750636.	93.4	FILLING	35.60
TIME FROM INITIATION OF EPS = 30.2500 HOURS							
TIME FROM INITIATION OF EPS = 30.5000 HOURS							
TIME FROM INITIATION OF EPS = 30.7500 HOURS							
TIME FROM INITIATION OF EPS = 31.0000 HOURS							
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	23.73	1169.23	34.23	502799.	95.1	FILLING	34.25
TANK-C(1)	138.72	1168.84	35.84	758041.	94.3	FILLING	35.94
TIME FROM INITIATION OF EPS = 31.2500 HOURS							
TIME FROM INITIATION OF EPS = 31.5000 HOURS							
TIME FROM INITIATION OF EPS = 31.7500 HOURS							
TIME FROM INITIATION OF EPS = 32.0000 HOURS							
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	270.16	1169.37	34.37	504866.	95.5	FILLING	34.65
TANK-C(1)	274.53	1169.20	36.20	765691.	95.3	FILLING	36.39
TIME FROM INITIATION OF EPS = 32.2500 HOURS							
TIME FROM INITIATION OF EPS = 32.5000 HOURS							
TIME FROM INITIATION OF EPS = 32.7500 HOURS							
TIME FROM INITIATION OF EPS = 33.0000 HOURS							
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	-154.25	1169.38	34.38	504945.	95.5	DRAINING	34.22
TANK-C(1)	-231.60	1169.93	36.93	781051.	97.2	DRAINING	36.76
TIME FROM INITIATION OF EPS = 33.2500 HOURS							
TIME FROM INITIATION OF EPS = 33.5000 HOURS							
TIME FROM INITIATION OF EPS = 33.7500 HOURS							
TIME FROM INITIATION OF EPS = 34.0000 HOURS							
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	-156.15	1168.74	33.74	495641.	93.7	DRAINING	33.58
TANK-C(1)	-229.70	1169.27	36.27	767204.	95.4	DRAINING	36.11
TIME FROM INITIATION OF EPS = 34.2500 HOURS							
TIME FROM INITIATION OF EPS = 34.5000 HOURS							
TIME FROM INITIATION OF EPS = 34.7500 HOURS							
TIME FROM INITIATION OF EPS = 35.0000 HOURS							
TANK-A(1)	-40.10	1168.02	15.02	50823.	92.7	DRAINING	14.84
TANK-B(1)	-369.10	1168.10	33.10	486247.	92.0	DRAINING	32.73
TANK-C(1)	-362.51	1168.62	35.62	753447.	93.7	DRAINING	35.36
TIME FROM INITIATION OF EPS = 35.2500 HOURS							
TIME FROM INITIATION OF EPS = 35.5000 HOURS							
TIME FROM INITIATION OF EPS = 35.7500 HOURS							
TIME FROM INITIATION OF EPS = 36.0000 HOURS							
TANK-A(1)	-28.04	1167.11	14.11	47757.	87.1	DRAINING	13.99
TANK-B(1)	-229.55	1166.64	31.64	464727.	87.9	DRAINING	31.40
TANK-C(1)	-308.33	1167.59	34.59	731731.	91.0	DRAINING	34.38
TIME FROM INITIATION OF EPS = 36.2500 HOURS							
TIME FROM INITIATION OF EPS = 36.5000 HOURS							
TIME FROM INITIATION OF EPS = 36.7500 HOURS							
TIME FROM INITIATION OF EPS = 37.0000 HOURS							
TANK-A(1)	-40.97	1166.40	13.40	45354.	82.7	DRAINING	13.22
TANK-B(1)	-189.64	1165.72	30.72	451211.	85.3	DRAINING	30.52
TANK-C(1)	-283.86	1166.74	33.74	713694.	88.8	DRAINING	33.54

TIME FROM INITIATION OF EPS = 37.2500 HOURS							
TIME FROM INITIATION OF EPS = 37.5000 HOURS							
TIME FROM INITIATION OF EPS = 37.7500 HOURS							
TIME FROM INITIATION OF EPS = 38.0000 HOURS							
TANK-A(1)	-15.15	1165.64	12.64	42769.	78.0	DRAINING	12.57
TANK-B(1)	-11.56	1164.94	29.94	439819.	83.2	DRAINING	29.93
TANK-C(1)	-230.53	1165.94	32.94	696804.	86.7	DRAINING	32.78
TIME FROM INITIATION OF EPS = 38.2500 HOURS							
TIME FROM INITIATION OF EPS = 38.5000 HOURS							
TIME FROM INITIATION OF EPS = 38.7500 HOURS							
TIME FROM INITIATION OF EPS = 39.0000 HOURS							
TANK-A(1)	-38.17	1165.23	12.23	41384.	75.5	DRAINING	12.06
TANK-B(1)	-145.16	1164.81	29.81	437940.	82.8	DRAINING	29.67
TANK-C(1)	-202.50	1165.37	32.37	684634.	85.2	DRAINING	32.22
TIME FROM INITIATION OF EPS = 39.2500 HOURS							
TIME FROM INITIATION OF EPS = 39.5000 HOURS							
TIME FROM INITIATION OF EPS = 39.7500 HOURS							
TIME FROM INITIATION OF EPS = 40.0000 HOURS							
TANK-A(1)	-63.91	1164.61	11.61	39288.	71.7	DRAINING	11.33
TANK-B(1)	-291.49	1164.22	29.22	429216.	81.2	DRAINING	28.92
TANK-C(1)	-287.70	1164.78	31.78	672302.	83.6	DRAINING	31.58
TIME FROM INITIATION OF EPS = 40.2500 HOURS							
TIME FROM INITIATION OF EPS = 40.5000 HOURS							
TIME FROM INITIATION OF EPS = 40.7500 HOURS							
TIME FROM INITIATION OF EPS = 41.0000 HOURS							
TANK-A(1)	-100.36	1163.58	10.58	35818.	65.3	DRAINING	10.14
TANK-B(1)	-482.27	1163.06	28.06	412107.	77.9	DRAINING	27.56
TANK-C(1)	-446.32	1163.93	30.93	654296.	81.4	DRAINING	30.62
TIME FROM INITIATION OF EPS = 41.2500 HOURS							
TIME FROM INITIATION OF EPS = 41.5000 HOURS							
TIME FROM INITIATION OF EPS = 41.7500 HOURS							
TIME FROM INITIATION OF EPS = 42.0000 HOURS							
TANK-A(1)	-86.28	1161.93	8.93	30214.	55.1	DRAINING	8.55
TANK-B(1)	-461.05	1161.12	26.12	383666.	72.6	DRAINING	25.65
TANK-C(1)	-481.61	1162.62	29.62	626605.	78.0	DRAINING	29.28
TIME FROM INITIATION OF EPS = 42.2500 HOURS							
TIME FROM INITIATION OF EPS = 42.5000 HOURS							
TIME FROM INITIATION OF EPS = 42.7500 HOURS							
TIME FROM INITIATION OF EPS = 43.0000 HOURS							
TANK-A(1)	-48.83	1160.42	7.42	25106.	45.8	DRAINING	7.20
TANK-B(1)	-296.35	1159.26	24.26	356411.	67.4	DRAINING	23.96
TANK-C(1)	-426.53	1161.24	28.24	597231.	74.3	DRAINING	27.93
TIME FROM INITIATION OF EPS = 43.2500 HOURS							
TIME FROM INITIATION OF EPS = 43.5000 HOURS							
TIME FROM INITIATION OF EPS = 43.7500 HOURS							
TIME FROM INITIATION OF EPS = 44.0000 HOURS							
TANK-A(1)	-48.37	1159.40	6.40	21669.	39.5	DRAINING	6.19
TANK-B(1)	-212.38	1158.06	23.06	338750.	64.1	DRAINING	22.84
TANK-C(1)	-382.34	1160.04	27.04	572026.	71.2	DRAINING	26.77
TIME FROM INITIATION OF EPS = 44.2500 HOURS							
TIME FROM INITIATION OF EPS = 44.5000 HOURS							
TIME FROM INITIATION OF EPS = 44.7500 HOURS							
TIME FROM INITIATION OF EPS = 45.0000 HOURS							
TANK-A(1)	-56.27	1158.47	5.47	18497.	33.7	DRAINING	5.22
TANK-B(1)	-220.99	1157.18	22.18	325811.	61.6	DRAINING	21.96
TANK-C(1)	-365.83	1158.98	25.98	549552.	68.4	DRAINING	25.72
TIME FROM INITIATION OF EPS = 45.2500 HOURS							
TIME FROM INITIATION OF EPS = 45.5000 HOURS							
TIME FROM INITIATION OF EPS = 45.7500 HOURS							
TIME FROM INITIATION OF EPS = 46.0000 HOURS							
TANK-A(1)	-41.82	1157.46	4.46	15109.	27.6	DRAINING	4.28
TANK-B(1)	-143.58	1156.27	21.27	312392.	59.1	DRAINING	21.12
TANK-C(1)	-329.07	1157.95	24.95	527774.	65.7	DRAINING	24.72
TIME FROM INITIATION OF EPS = 46.2500 HOURS							
TIME FROM INITIATION OF EPS = 46.5000 HOURS							
TIME FROM INITIATION OF EPS = 46.7500 HOURS							
TIME FROM INITIATION OF EPS = 47.0000 HOURS							
TANK-A(1)	-2.14	1156.67	3.67	12423.	22.7	DRAINING	3.66
TANK-B(1)	119.83	1155.65	20.65	303327.	57.4	FILLING	20.77
TANK-C(1)	-246.31	1157.05	24.05	588657.	63.3	DRAINING	23.87

TIME FROM INITIATION OF EPS = 47.2500 HOURS							
TIME FROM INITIATION OF EPS = 47.5000 HOURS							
TIME FROM INITIATION OF EPS = 47.7500 HOURS							
TIME FROM INITIATION OF EPS = 48.0000 HOURS							
TANK-A(1)	103.90	1158.03	5.03	17025.	31.1	FILLING	5.49
TANK-B(1)	564.11	1157.35	22.35	328279.	62.1	FILLING	22.92
TANK-C(1)	436.78	1157.61	24.61	520536.	64.8	FILLING	24.92
TIME FROM INITIATION OF EPS = 48.2500 HOURS							
TIME FROM INITIATION OF EPS = 48.5000 HOURS							
TIME FROM INITIATION OF EPS = 48.7500 HOURS							
TIME FROM INITIATION OF EPS = 49.0000 HOURS							
TANK-A(1)	75.92	1159.74	6.74	22794.	41.6	FILLING	7.07
TANK-B(1)	488.05	1159.59	24.59	361271.	68.3	FILLING	25.09
TANK-C(1)	453.50	1158.90	25.90	547844.	68.2	FILLING	26.22
TIME FROM INITIATION OF EPS = 49.2500 HOURS							
TIME FROM INITIATION OF EPS = 49.5000 HOURS							
TIME FROM INITIATION OF EPS = 49.7500 HOURS							
TIME FROM INITIATION OF EPS = 50.0000 HOURS							
TANK-A(1)	93.48	1161.10	8.10	27418.	50.0	FILLING	8.52
TANK-B(1)	510.12	1161.54	26.54	389834.	73.7	FILLING	27.06
TANK-C(1)	504.00	1160.21	27.21	575489.	71.6	FILLING	27.56
TIME FROM INITIATION OF EPS = 50.2500 HOURS							
TIME FROM INITIATION OF EPS = 50.5000 HOURS							
TIME FROM INITIATION OF EPS = 50.7500 HOURS							
TIME FROM INITIATION OF EPS = 51.0000 HOURS							
TANK-A(1)	72.43	1162.72	9.72	32896.	60.0	FILLING	10.04
TANK-B(1)	418.30	1163.58	28.58	419839.	79.4	FILLING	29.01
TANK-C(1)	489.32	1161.66	28.66	606249.	75.4	FILLING	29.01
TIME FROM INITIATION OF EPS = 51.2500 HOURS							
TIME FROM INITIATION OF EPS = 51.5000 HOURS							
TIME FROM INITIATION OF EPS = 51.7500 HOURS							
TIME FROM INITIATION OF EPS = 52.0000 HOURS							
TANK-A(1)	58.05	1164.06	11.06	37429.	68.3	FILLING	11.32
TANK-B(1)	305.60	1165.26	30.26	444500.	84.1	FILLING	30.57
TANK-C(1)	451.41	1163.05	30.05	635662.	79.1	FILLING	30.37
TIME FROM INITIATION OF EPS = 52.2500 HOURS							
TIME FROM INITIATION OF EPS = 52.5000 HOURS							
TIME FROM INITIATION OF EPS = 52.7500 HOURS							
TIME FROM INITIATION OF EPS = 53.0000 HOURS							
TANK-A(1)	16.20	1165.18	12.18	41224.	75.2	FILLING	12.25
TANK-B(1)	28.31	1166.50	31.50	462689.	87.5	FILLING	31.53
TANK-C(1)	353.65	1164.32	31.32	662420.	82.4	FILLING	31.57
TIME FROM INITIATION OF EPS = 53.2500 HOURS							
TIME FROM INITIATION OF EPS = 53.5000 HOURS							
TIME FROM INITIATION OF EPS = 53.7500 HOURS							
TIME FROM INITIATION OF EPS = 54.0000 HOURS							
TANK-A(1)	-30.67	1165.74	12.74	43116.	78.6	DRAINING	12.60
TANK-B(1)	-175.21	1166.68	31.68	465336.	88.0	DRAINING	31.50
TANK-C(1)	193.88	1165.23	32.23	681722.	84.8	FILLING	32.37
TIME FROM INITIATION OF EPS = 54.2500 HOURS							
TIME FROM INITIATION OF EPS = 54.5000 HOURS							
TIME FROM INITIATION OF EPS = 54.7500 HOURS							
TIME FROM INITIATION OF EPS = 55.0000 HOURS							
TANK-A(1)	34.69	1165.76	12.76	43172.	78.7	FILLING	12.91
TANK-B(1)	20.39	1166.08	31.08	456521.	86.3	FILLING	31.10
TANK-C(1)	127.41	1165.61	32.61	689812.	85.8	FILLING	32.70
TIME FROM INITIATION OF EPS = 55.2500 HOURS							
TIME FROM INITIATION OF EPS = 55.5000 HOURS							
TIME FROM INITIATION OF EPS = 55.7500 HOURS							
TIME FROM INITIATION OF EPS = 56.0000 HOURS							
TANK-A(1)	62.92	1166.16	13.16	44528.	81.2	FILLING	13.44
TANK-B(1)	262.37	1166.21	31.21	458500.	86.7	FILLING	31.48
TANK-C(1)	238.21	1165.97	32.97	697395.	86.8	FILLING	33.14
TIME FROM INITIATION OF EPS = 56.2500 HOURS							
TIME FROM INITIATION OF EPS = 56.5000 HOURS							
TIME FROM INITIATION OF EPS = 56.7500 HOURS							
TIME FROM INITIATION OF EPS = 57.0000 HOURS							
TANK-A(1)	77.15	1167.10	14.10	47733.	87.1	FILLING	14.45
TANK-B(1)	371.94	1167.25	32.25	473724.	89.6	FILLING	32.63

TANK-C(1)	351.16	1166.69	33.69	712658.	88.7	FILLING	33.94
TIME FROM INITIATION OF EPS = 57.2500 HOURS							
TIME FROM INITIATION OF EPS = 57.5000 HOURS							
TIME FROM INITIATION OF EPS = 57.7500 HOURS							
TIME FROM INITIATION OF EPS = 58.0000 HOURS							
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	358.06	1168.76	33.76	495921.	93.8	FILLING	34.13
TANK-C(1)	423.68	1167.80	34.80	736061.	91.6	FILLING	35.10
TIME FROM INITIATION OF EPS = 58.2500 HOURS							
TIME FROM INITIATION OF EPS = 58.5000 HOURS							
TIME FROM INITIATION OF EPS = 58.7500 HOURS							
TIME FROM INITIATION OF EPS = 59.0000 HOURS							
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	0.00	1169.49	34.49	506600.	95.8		34.49
TANK-C(1)	393.81	1169.46	36.46	771234.	96.0	FILLING	36.74
TIME FROM INITIATION OF EPS = 59.2500 HOURS							
TIME FROM INITIATION OF EPS = 59.5000 HOURS							
TIME FROM INITIATION OF EPS = 59.7500 HOURS							
TIME FROM INITIATION OF EPS = 60.0000 HOURS							
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	-250.13	1168.72	33.72	495384.	93.7	DRAINING	33.47
TANK-C(1)	-315.76	1169.45	36.45	771091.	95.9	DRAINING	36.23
TIME FROM INITIATION OF EPS = 60.2500 HOURS							
TIME FROM INITIATION OF EPS = 60.5000 HOURS							
TIME FROM INITIATION OF EPS = 60.7500 HOURS							
TIME FROM INITIATION OF EPS = 61.0000 HOURS							
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	-212.21	1167.71	32.71	480541.	90.9	DRAINING	32.50
TANK-C(1)	-302.26	1168.55	35.55	751979.	93.6	DRAINING	35.34
TIME FROM INITIATION OF EPS = 61.2500 HOURS							
TIME FROM INITIATION OF EPS = 61.5000 HOURS							
TIME FROM INITIATION OF EPS = 61.7500 HOURS							
TIME FROM INITIATION OF EPS = 62.0000 HOURS							
TANK-A(1)	-10.40	1167.44	14.44	488886.	89.2	DRAINING	14.40
TANK-B(1)	-27.06	1166.87	31.87	468074.	88.5	DRAINING	31.84
TANK-C(1)	-219.77	1167.73	34.73	734660.	91.4	DRAINING	34.58
TIME FROM INITIATION OF EPS = 62.2500 HOURS							
TIME FROM INITIATION OF EPS = 62.5000 HOURS							
TIME FROM INITIATION OF EPS = 62.7500 HOURS							
TIME FROM INITIATION OF EPS = 63.0000 HOURS							
TANK-A(1)	-38.17	1167.06	14.06	47582.	86.8	DRAINING	13.89
TANK-B(1)	-150.30	1166.69	31.69	465483.	88.0	DRAINING	31.54
TANK-C(1)	-197.38	1167.19	34.19	723121.	90.0	DRAINING	34.05
TIME FROM INITIATION OF EPS = 63.2500 HOURS							
TIME FROM INITIATION OF EPS = 63.5000 HOURS							
TIME FROM INITIATION OF EPS = 63.7500 HOURS							
TIME FROM INITIATION OF EPS = 64.0000 HOURS							
TANK-A(1)	-63.86	1166.44	13.44	45498.	83.0	DRAINING	13.16
TANK-B(1)	-293.10	1166.08	31.08	456516.	86.3	DRAINING	30.78
TANK-C(1)	-286.12	1166.61	33.61	711021.	88.5	DRAINING	33.41
TIME FROM INITIATION OF EPS = 64.2500 HOURS							
TIME FROM INITIATION OF EPS = 64.5000 HOURS							
TIME FROM INITIATION OF EPS = 64.7500 HOURS							
TIME FROM INITIATION OF EPS = 65.0000 HOURS							
TANK-A(1)	-100.33	1165.42	12.42	42034.	76.7	DRAINING	11.98
TANK-B(1)	-482.98	1164.91	29.91	49322.	83.1	DRAINING	29.42
TANK-C(1)	-445.63	1165.77	32.77	693093.	86.2	DRAINING	32.45
TIME FROM INITIATION OF EPS = 65.2500 HOURS							
TIME FROM INITIATION OF EPS = 65.5000 HOURS							
TIME FROM INITIATION OF EPS = 65.7500 HOURS							
TIME FROM INITIATION OF EPS = 66.0000 HOURS							
TANK-A(1)	-86.21	1163.77	10.77	36433.	66.5	DRAINING	10.38
TANK-B(1)	-461.60	1162.97	27.97	410842.	77.7	DRAINING	27.50
TANK-C(1)	-481.12	1164.46	31.46	665438.	82.8	DRAINING	31.12
TIME FROM INITIATION OF EPS = 66.2500 HOURS							
TIME FROM INITIATION OF EPS = 66.5000 HOURS							
TIME FROM INITIATION OF EPS = 66.7500 HOURS							
TIME FROM INITIATION OF EPS = 67.0000 HOURS							
TANK-A(1)	-48.73	1162.26	9.26	31328.	57.1	DRAINING	9.04

TANK-B(1)	-296.92	1161.11	26.11	383558.	72.5	DRAINING	25.81
TANK-C(1)	-426.06	1163.07	30.07	636091.	79.1	DRAINING	29.77
TIME FROM INITIATION OF EPS = 67.2500 HOURS							
TIME FROM INITIATION OF EPS = 67.5000 HOURS							
TIME FROM INITIATION OF EPS = 67.7500 HOURS							
TIME FROM INITIATION OF EPS = 68.0000 HOURS							
TANK-A(1)	-48.31	1161.24	8.24	27896.	50.9	DRAINING	8.03
TANK-B(1)	-212.83	1159.91	24.91	365866.	69.2	DRAINING	24.69
TANK-C(1)	-381.95	1161.88	28.88	610912.	76.0	DRAINING	28.61
TIME FROM INITIATION OF EPS = 68.2500 HOURS							
TIME FROM INITIATION OF EPS = 68.5000 HOURS							
TIME FROM INITIATION OF EPS = 68.7500 HOURS							
TIME FROM INITIATION OF EPS = 69.0000 HOURS							
TANK-A(1)	-56.25	1160.31	7.31	24725.	45.1	DRAINING	7.06
TANK-B(1)	-221.29	1159.03	24.03	352905.	66.7	DRAINING	23.80
TANK-C(1)	-365.55	1160.82	27.82	588459.	73.2	DRAINING	27.56
TIME FROM INITIATION OF EPS = 69.2500 HOURS							
TIME FROM INITIATION OF EPS = 69.5000 HOURS							
TIME FROM INITIATION OF EPS = 69.7500 HOURS							
TIME FROM INITIATION OF EPS = 70.0000 HOURS							
TANK-A(1)	-41.79	1159.31	6.31	21338.	38.9	DRAINING	6.12
TANK-B(1)	-143.82	1158.11	23.11	339470.	64.2	DRAINING	22.96
TANK-C(1)	-328.86	1159.79	26.79	566696.	70.5	DRAINING	26.56
TIME FROM INITIATION OF EPS = 70.2500 HOURS							
TIME FROM INITIATION OF EPS = 70.5000 HOURS							
TIME FROM INITIATION OF EPS = 70.7500 HOURS							
TIME FROM INITIATION OF EPS = 71.0000 HOURS							
TANK-A(1)	-2.14	1158.51	5.51	18653.	34.0	DRAINING	5.50
TANK-B(1)	119.66	1157.49	22.49	330393.	62.5	FILLING	22.61
TANK-C(1)	-246.14	1158.89	25.89	547590.	68.1	DRAINING	25.71

 Summary of Max/Min Node Values

Node	MnPres	MnHead	MnHGL	MnTime	MxPres	MxHead	MxHGL	MxTime	Elevation
1	71.92	165.98	1150.98	18.00	88.43	204.06	1189.06	2.75	985.0
2	74.47	171.86	1151.86	18.00	89.57	206.69	1186.69	2.75	980.0
3	74.39	171.67	1148.67	18.00	95.29	219.90	1196.90	2.75	977.0
4	65.86	151.99	1148.99	18.00	85.98	198.43	1195.43	2.75	997.0
5	64.75	149.43	1149.43	18.00	84.05	193.97	1193.97	2.75	1000.0
6	77.38	178.56	1148.56	18.00	99.35	229.27	1199.27	2.75	970.0
7	64.39	148.60	1148.60	18.00	85.98	198.42	1198.42	2.75	1000.0
8	55.74	128.63	1148.63	18.00	77.18	178.12	1198.12	2.75	1020.0
9	77.36	178.52	1148.52	18.00	100.05	230.88	1200.88	2.75	970.0
10	64.37	148.55	1148.55	18.00	86.59	199.82	1199.82	2.75	1000.0
11	55.72	128.58	1148.58	18.00	77.38	178.56	1198.56	2.75	1020.0
12	83.83	193.45	1148.45	18.00	108.42	250.20	1205.20	2.75	955.0
13	95.98	221.48	1148.48	18.00	120.78	278.73	1205.73	2.75	927.0
14	78.18	180.42	1148.42	18.00	102.79	237.20	1205.20	2.75	968.0
15	53.69	123.91	1155.91	18.00	61.97	143.00	1175.00	2.75	1032.0
16	54.41	125.57	1153.57	18.00	67.00	154.61	1182.61	2.75	1028.0
17	73.98	170.73	1149.73	18.00	88.69	204.66	1183.66	2.75	979.0
18	58.13	134.13	1089.13	6.00	58.53	135.06	1090.06	2.75	955.0
19	60.63	139.91	1088.91	6.00	61.13	141.06	1090.06	2.75	949.0
20	94.00	216.93	1086.93	6.00	95.36	220.06	1090.06	2.75	870.0
21	86.56	199.75	1086.75	6.00	87.99	203.06	1090.06	2.75	887.0
22	86.56	199.75	1086.75	6.00	87.99	203.06	1090.06	2.75	887.0
23	90.83	209.61	1086.61	6.00	92.32	213.06	1090.06	2.75	877.0
24	90.83	209.61	1086.61	6.00	92.32	213.06	1090.06	2.75	877.0
25	93.83	216.53	1086.53	6.00	95.36	220.06	1090.06	2.75	870.0
26	93.83	216.53	1086.53	6.00	95.36	220.06	1090.06	2.75	870.0
27	66.25	152.88	1088.88	6.00	66.76	154.06	1090.06	2.75	936.0
28	70.16	161.90	1088.90	6.00	70.66	163.06	1090.06	2.75	927.0
29	80.70	186.22	1086.22	6.00	82.36	190.05	1090.05	2.75	900.0
30	81.42	187.90	1085.90	6.00	83.22	192.05	1090.05	2.75	898.0
31	74.39	171.68	1148.68	18.00	95.18	219.64	1196.64	2.75	977.0
32	91.52	211.21	1086.21	6.00	93.19	215.05	1090.05	0.00	875.0
33	66.15	152.65	1148.65	18.00	86.84	200.39	1196.39	2.75	996.0
34	69.12	159.50	1154.50	18.00	78.19	180.43	1175.43	2.75	995.0
35	81.92	189.05	1089.05	6.00	82.36	190.06	1090.06	2.75	900.0
36	71.28	164.50	1154.50	18.00	80.35	185.43	1175.43	2.75	990.0
37	70.73	163.22	1153.22	18.00	81.95	189.11	1179.11	2.75	990.0
38	71.35	164.65	1148.65	18.00	92.03	212.37	1196.37	2.75	984.0
39	70.91	163.64	1148.64	18.00	91.57	211.31	1196.31	2.75	985.0
40	67.87	156.62	1148.62	18.00	88.47	204.17	1196.17	2.75	992.0
41	70.47	162.62	1148.62	18.00	91.06	210.15	1196.15	2.75	986.0
42	69.60	160.61	1148.61	18.00	90.17	208.09	1196.09	2.75	988.0
43	66.13	152.61	1148.61	18.00	86.69	200.06	1196.06	2.75	996.0
44	77.31	178.41	1148.41	18.00	101.92	235.20	1205.20	2.75	970.0
45	77.57	179.01	1089.01	6.00	78.03	180.06	1090.06	2.75	910.0

Maximum / Minimum Report

46	78.28	180.65	1148.65	18.00	99.16	228.82	1196.82	2.75	968.0
47	68.32	157.66	1148.66	18.00	89.06	205.53	1196.53	2.75	991.0
48	75.27	173.70	1148.70	18.00	95.78	221.03	1196.03	2.75	975.0
49	72.32	166.89	1086.89	6.00	73.69	170.06	1090.06	2.75	920.0
50	70.47	162.63	1148.63	18.00	90.94	209.86	1195.86	2.75	986.0
51	65.40	150.92	1085.92	6.00	67.19	155.05	1090.05	2.75	935.0
52	90.38	208.57	1148.57	18.00	112.81	260.34	1200.34	2.75	940.0
53	124.65	287.65	1085.65	6.00	126.56	292.05	1090.05	2.75	798.0
54	74.37	171.63	1085.63	6.00	76.29	176.05	1090.05	0.00	914.0
55	86.94	200.62	1085.62	6.00	88.86	205.05	1090.05	0.00	885.0
56	110.79	255.66	1085.66	6.00	112.69	260.05	1090.05	0.00	830.0
57	110.79	255.67	1085.67	6.00	112.69	260.05	1090.05	0.00	830.0
58	112.96	260.68	1085.68	6.00	114.86	265.05	1090.05	0.00	825.0
59	97.92	225.97	1145.97	18.00	116.01	267.71	1187.71	2.75	920.0
60	123.82	285.74	1085.74	6.00	125.69	290.05	1090.05	0.00	800.0
61	82.32	189.98	1085.98	6.00	84.09	194.05	1090.05	0.00	896.0
62	95.80	221.07	1086.07	6.00	97.52	225.05	1090.05	0.00	865.0
63	82.74	190.95	1085.95	6.00	84.52	195.05	1090.05	0.00	895.0
64	85.30	196.86	1085.86	6.00	87.12	201.05	1090.05	0.00	889.0
65	93.36	215.44	1088.44	6.00	94.06	217.07	1090.07	0.00	873.0
66	104.45	241.04	1146.04	18.00	122.50	282.69	1187.69	2.75	905.0
67	67.79	156.45	1148.45	18.00	87.16	201.13	1193.13	2.75	992.0
68	83.83	193.46	1148.46	18.00	102.38	236.26	1191.26	2.75	955.0
69	79.73	184.00	1139.00	6.00	79.73	184.00	1139.00	0.00	955.0
70	89.53	206.62	1146.62	18.00	109.11	251.80	1191.80	2.75	940.0
71	91.62	211.43	1146.43	18.00	110.87	255.86	1190.86	2.75	935.0
72	84.99	196.14	1146.14	18.00	104.71	241.65	1191.65	2.75	950.0
73	93.48	215.73	1145.73	18.00	113.28	261.43	1191.43	2.75	930.0
74	89.18	205.80	1145.80	18.00	108.97	251.48	1191.48	2.75	940.0
75	89.10	205.62	1145.62	18.00	108.85	251.19	1191.19	2.75	940.0
76	72.18	166.57	1146.57	18.00	91.41	210.95	1190.95	2.75	980.0
77	76.12	175.67	1145.67	18.00	95.74	220.94	1190.94	2.75	970.0
78	91.62	211.43	1139.43	18.00	113.93	262.92	1190.92	2.75	928.0
79	97.16	224.22	1139.22	18.00	119.56	275.92	1190.92	2.75	915.0
80	86.00	198.47	1145.47	18.00	104.64	241.48	1188.48	2.75	947.0
81	79.56	183.61	1148.61	18.00	100.67	232.32	1197.32	2.75	965.0
82	71.11	164.09	1086.09	6.00	72.82	168.05	1090.05	0.00	922.0
83	74.97	173.00	1086.00	6.00	76.72	177.05	1090.05	0.00	913.0
84	86.06	198.60	1148.60	18.00	107.67	248.46	1198.46	2.75	950.0
85	77.39	178.60	1148.60	18.00	98.82	228.06	1198.06	2.75	970.0
86	91.96	212.21	1147.21	18.00	110.93	256.00	1191.00	2.75	935.0
87	68.69	158.51	1148.51	18.00	89.17	205.79	1195.79	2.75	990.0
88	66.59	153.68	1148.68	18.00	87.08	200.95	1195.95	2.75	995.0
89	64.78	149.48	1154.48	18.00	77.74	179.40	1184.40	2.75	1005.0
90	77.35	178.51	1148.51	18.00	95.71	220.86	1190.86	2.75	970.0
91	58.89	135.90	1085.90	6.00	60.69	140.05	1090.05	2.75	950.0
92	79.56	183.61	1148.61	18.00	100.65	232.28	1197.28	2.75	965.0
93	58.02	133.90	1085.90	6.00	59.82	138.05	1090.05	2.75	952.0
94	79.56	183.60	1146.60	18.00	98.75	227.88	1190.88	2.75	963.0
95	67.87	156.61	1146.61	18.00	87.07	200.93	1190.93	2.75	990.0
96	52.24	120.55	1153.55	18.00	64.65	149.20	1182.20	2.75	1033.0
97	82.31	189.95	1147.95	18.00	101.91	235.18	1193.18	2.75	958.0
98	60.06	138.60	1148.60	18.00	81.63	188.38	1198.38	2.75	1010.0
99	60.05	138.57	1148.57	18.00	81.79	188.75	1198.75	2.75	1010.0
100	55.72	128.58	1148.58	18.00	77.38	178.56	1198.56	2.75	1020.0
101	68.69	158.52	1148.52	18.00	91.41	210.94	1200.94	2.75	990.0

Maximum / Minimum Report

102	75.19	173.51	1148.51	18.00	98.40	227.07	1202.07	2.75	975.0
103	79.53	183.52	1148.52	18.00	102.22	235.88	1200.88	2.75	965.0
104	63.11	145.63	1148.63	18.00	83.64	193.02	1196.02	2.75	1003.0
105	57.48	132.64	1148.64	18.00	78.02	180.04	1196.04	2.75	1016.0
106	68.77	158.69	1148.69	18.00	89.40	206.32	1196.32	2.75	990.0
107	86.03	198.53	1148.53	18.00	111.55	257.43	1207.43	2.75	950.0
108	76.62	176.80	1148.80	18.00	97.07	224.01	1196.01	2.75	972.0
109	108.72	250.89	1145.89	18.00	126.84	292.70	1187.70	2.75	895.0
110	104.38	240.89	1145.89	18.00	122.50	282.70	1187.70	2.75	905.0
111	97.05	223.96	1145.96	18.00	115.14	265.71	1187.71	2.75	922.0
112	93.17	215.00	1146.00	18.00	111.24	256.71	1187.71	2.75	931.0
113	91.45	211.04	1146.04	18.00	109.52	252.73	1187.73	2.75	935.0
114	85.79	197.98	1145.98	18.00	103.89	239.74	1187.74	2.75	948.0
115	86.56	199.76	1149.76	18.00	100.75	232.49	1182.49	2.75	950.0
116	81.22	187.43	1148.43	18.00	99.77	230.23	1191.23	2.75	961.0
117	85.63	197.60	1147.60	18.00	104.53	241.22	1191.22	2.75	950.0
118	85.62	197.58	1147.58	18.00	104.49	241.13	1191.13	2.75	950.0
119	85.45	197.19	1147.19	18.00	104.33	240.77	1190.77	2.75	950.0
120	80.85	186.58	1086.58	6.00	82.36	190.06	1090.06	2.75	900.0
121	86.02	198.50	1148.50	18.00	106.67	246.16	1196.16	2.75	950.0
122	75.23	173.60	1153.60	18.00	88.13	203.38	1183.38	2.75	980.0
123	87.80	202.61	1152.61	18.00	100.77	232.56	1182.56	2.75	950.0
124	66.32	153.05	1153.05	18.00	77.92	179.82	1179.82	2.75	1000.0
125	90.87	209.69	1149.69	18.00	105.06	242.44	1182.44	2.75	940.0
126	77.84	179.63	1149.63	18.00	92.08	212.50	1182.50	2.75	970.0
127	86.52	199.66	1149.66	18.00	100.75	232.50	1182.50	2.75	950.0
128	83.85	193.51	1148.51	18.00	104.50	241.16	1196.16	2.75	955.0
129	65.39	150.90	1085.90	6.00	67.19	155.05	1090.05	2.75	935.0
130	84.89	195.90	1085.90	6.00	86.69	200.05	1090.05	2.75	890.0
131	65.39	150.90	1085.90	6.00	67.19	155.05	1090.05	2.75	935.0
132	110.79	255.66	1085.66	6.00	112.69	260.05	1090.05	0.00	830.0
133	119.59	275.97	1085.97	6.00	121.36	280.05	1090.05	0.00	810.0
134	87.03	200.84	1085.84	6.00	88.86	205.05	1090.05	2.75	885.0
135	75.19	173.51	1148.51	18.00	95.84	221.17	1196.17	2.75	975.0
136	83.79	193.36	1148.36	18.00	102.33	236.14	1191.14	2.75	955.0
137	51.98	119.96	1089.96	6.00	52.03	120.07	1090.07	0.00	970.0
138	77.35	178.51	1148.51	18.00	98.00	226.16	1196.16	2.75	970.0
139	77.39	178.59	1148.59	18.00	99.00	228.46	1198.46	2.75	970.0
140	79.55	183.59	1148.59	18.00	101.34	233.86	1198.86	2.75	965.0
141	102.19	235.82	1085.82	6.00	104.02	240.05	1090.05	2.75	850.0
142	87.03	200.84	1085.84	6.00	88.86	205.05	1090.05	2.75	885.0
143	83.05	191.65	1149.65	18.00	97.28	224.50	1182.50	2.75	958.0
144	87.02	200.81	1085.81	6.00	88.86	205.05	1090.05	2.75	885.0
145	81.65	188.42	1148.42	18.00	106.26	245.20	1205.20	2.75	960.0
146	92.48	213.41	1148.41	18.00	117.09	270.20	1205.20	2.75	935.0
147	90.31	208.41	1148.41	18.00	114.92	265.20	1205.20	2.75	940.0
148	85.98	198.41	1148.41	18.00	110.59	255.20	1205.20	2.75	950.0
149	64.53	148.92	1088.92	6.00	65.03	150.06	1090.06	2.75	940.0
150	69.77	161.00	1086.00	6.00	71.52	165.05	1090.05	0.00	925.0
151	80.17	185.01	1086.01	6.00	81.92	189.05	1090.05	0.00	901.0
152	69.98	161.49	1088.49	6.00	70.66	163.06	1090.06	2.75	927.0
153	69.99	161.52	1088.52	6.00	70.66	163.06	1090.06	2.75	927.0
154	84.99	196.13	1146.13	18.00	104.71	241.65	1191.65	2.75	950.0
155	77.84	179.62	1149.62	18.00	92.08	212.50	1182.50	2.75	970.0
156	107.49	248.06	1146.06	18.00	125.56	289.74	1187.74	2.75	898.0
157	106.52	245.83	1085.83	6.00	108.36	250.05	1090.05	0.00	840.0

Maximum / Minimum Report

158	64.42	148.66	1148.66	18.00	84.68	195.42	1195.42	2.751000.0
159	89.09	205.58	1145.58	18.00	108.85	251.19	1191.19	2.75 940.0
160	87.21	201.24	1142.24	18.00	108.30	249.93	1190.93	2.75 941.0
161	101.57	234.40	1139.40	18.00	123.90	285.92	1190.92	2.75 905.0
162	75.13	173.38	1148.38	18.00	93.63	216.08	1191.08	2.75 975.0
163	81.61	188.34	1148.34	18.00	100.16	231.13	1191.13	2.75 960.0
164	82.46	190.28	1148.28	18.00	101.02	233.13	1191.13	2.75 958.0
165	76.58	176.72	1148.72	18.00	94.36	217.77	1189.77	2.75 972.0
166	70.64	163.01	1153.01	18.00	82.25	189.82	1179.82	2.75 990.0
167	70.13	161.84	1156.84	47.25	76.01	175.42	1170.42	2.75 995.0
168	90.76	209.45	1089.45	6.00	91.03	210.07	1090.07	0.00 880.0
169	90.73	209.37	1089.37	6.00	91.03	210.07	1090.07	0.00 880.0
170	110.55	255.12	1145.12	18.00	129.00	297.69	1187.69	2.75 890.0
171	110.61	255.25	1145.25	18.00	129.00	297.69	1187.69	2.75 890.0
172	57.83	133.46	1153.46	18.00	70.42	162.51	1182.51	2.751020.0
173	125.40	289.38	1139.38	18.00	147.73	340.92	1190.92	2.75 850.0
174	70.85	163.51	1148.51	18.00	91.51	211.17	1196.17	2.75 985.0
175	88.20	203.53	1148.53	18.00	109.02	251.57	1196.57	2.75 945.0
176	77.36	178.53	1148.53	18.00	98.17	226.56	1196.56	2.75 970.0
177	86.03	198.52	1148.52	18.00	106.80	246.45	1196.45	2.75 950.0
178	116.84	269.63	1144.63	18.00	135.50	312.69	1187.69	2.75 875.0
179	110.26	254.45	1145.45	18.00	128.83	297.30	1188.30	2.75 891.0
180	97.69	225.44	1145.44	18.00	116.22	268.20	1188.20	2.75 920.0
181	105.97	244.54	1139.54	18.00	128.23	295.92	1190.92	2.75 895.0
182	97.30	224.53	1139.53	18.00	119.57	275.92	1190.92	2.75 915.0
183	75.19	173.52	1148.52	18.00	95.96	221.45	1196.45	2.75 975.0
184	81.69	188.51	1148.51	18.00	102.40	236.30	1196.30	2.75 960.0
185	80.47	185.70	1148.70	18.00	98.31	226.88	1189.88	2.75 963.0
186	95.52	220.44	1145.44	18.00	114.02	263.13	1188.13	2.75 925.0
187	95.43	220.21	1145.21	18.00	114.02	263.13	1188.13	2.75 925.0
188	83.82	193.42	1148.42	18.00	108.42	250.20	1205.20	2.75 955.0
189	62.32	143.82	1148.82	18.00	82.56	190.53	1195.53	2.751005.0
190	66.72	153.96	1151.96	18.00	81.66	188.45	1186.45	2.75 998.0
191	70.94	163.71	1148.71	18.00	91.26	210.60	1195.60	2.75 985.0
192	54.01	124.65	1152.65	18.00	68.42	157.88	1185.88	2.751028.0
193	103.82	239.58	1089.58	6.00	104.03	240.07	1090.07	0.00 850.0
194	71.89	165.91	1085.91	6.00	73.69	170.05	1090.05	2.75 920.0
195	81.51	188.10	1086.10	6.00	83.22	192.05	1090.05	2.75 898.0
196	76.34	176.18	1086.18	6.00	78.02	180.05	1090.05	0.00 910.0
197	63.11	145.63	1148.63	18.00	83.45	192.57	1195.57	2.751003.0
198	75.20	173.55	1148.55	18.00	95.49	220.36	1195.36	2.75 975.0
199	70.91	163.64	1148.64	18.00	91.22	210.51	1195.51	2.75 985.0
200	51.98	119.96	1089.96	6.00	52.03	120.07	1090.07	0.00 970.0
201	93.17	215.01	1090.01	6.00	93.20	215.08	1090.08	0.00 875.0
202	73.08	168.64	1148.64	18.00	93.39	215.51	1195.51	2.75 980.0
203	93.55	215.89	1085.89	6.00	95.36	220.05	1090.05	0.00 870.0
204	102.23	235.91	1085.91	6.00	104.02	240.05	1090.05	0.00 850.0
205	102.22	235.89	1085.89	6.00	104.02	240.05	1090.05	0.00 850.0
206	106.55	245.88	1085.88	6.00	108.36	250.05	1090.05	0.00 840.0
207	74.15	171.12	1151.12	18.00	89.86	207.37	1187.37	2.75 980.0
208	68.70	158.53	1148.53	18.00	95.56	220.52	1210.52	2.75 990.0
209	52.75	121.73	1111.73	19.00	74.97	173.00	1163.00	33.00 990.0
210	81.79	188.74	1148.74	18.00	102.40	236.31	1196.31	2.75 960.0
211	61.10	141.00	1151.00	18.00	77.14	178.00	1188.00	2.751010.0
212	82.76	190.97	1150.97	18.00	99.06	228.61	1188.61	2.75 960.0
213	97.94	226.01	1086.01	6.00	99.69	230.05	1090.05	0.00 860.0

Maximum / Minimum Report

214	72.38	167.04	1086.04	18.00	74.12	171.05	1090.05	0.00	919.0
215	76.28	176.02	1086.02	18.00	78.02	180.05	1090.05	0.00	910.0
216	66.97	154.56	1089.56	6.00	67.20	155.07	1090.07	2.75	935.0
217	56.23	129.77	1089.77	6.00	56.36	130.07	1090.07	0.00	960.0
218	73.52	169.67	1089.67	6.00	73.70	170.07	1090.07	2.75	920.0
219	73.77	170.23	1150.23	18.00	90.18	208.11	1188.11	2.75	980.0
220	77.77	179.47	1149.47	18.00	94.82	218.83	1188.83	2.75	970.0
221	75.17	173.47	1149.47	18.00	92.22	212.83	1188.83	2.75	976.0
222	70.85	163.50	1148.50	18.00	91.48	211.12	1196.12	2.75	985.0
223	75.19	173.51	1148.51	18.00	95.89	221.28	1196.28	2.75	975.0
224	73.03	168.52	1148.52	18.00	93.82	216.50	1196.50	2.75	980.0
225	71.90	165.92	1085.92	6.00	73.69	170.05	1090.05	0.00	920.0
226	87.05	200.89	1085.89	6.00	88.86	205.05	1090.05	0.00	885.0
227	84.90	195.92	1085.92	6.00	86.69	200.05	1090.05	0.00	890.0
228	73.10	168.70	1089.70	6.00	73.26	169.07	1090.07	0.00	921.0
229	93.57	215.93	1085.93	6.00	95.36	220.05	1090.05	0.00	870.0
230	91.63	211.45	1086.45	6.00	93.19	215.05	1090.05	2.75	875.0
231	80.08	184.81	1089.81	6.00	80.20	185.07	1090.07	0.00	905.0
232	93.00	214.62	1085.62	6.00	94.92	219.05	1090.05	0.00	871.0
233	63.10	145.62	1085.62	6.00	65.02	150.05	1090.05	2.75	940.0
234	87.75	202.49	1152.49	18.00	100.76	232.51	1182.51	2.75	950.0
235	87.03	200.85	1145.85	18.00	106.82	246.50	1191.50	2.75	945.0
236	91.36	210.83	1145.83	18.00	111.15	256.49	1191.49	2.75	935.0
237	79.36	183.14	1148.14	18.00	99.34	229.25	1194.25	2.75	965.0
238	51.32	118.42	1148.42	18.00	75.92	175.20	1205.20	2.75	1030.0
239	81.70	188.54	1148.54	18.00	105.61	243.71	1203.71	2.75	960.0
240	75.19	173.51	1148.51	18.00	98.82	228.06	1203.06	2.75	975.0
241	74.55	172.03	1152.03	18.00	87.43	201.76	1181.76	2.75	980.0
242	96.44	222.56	1152.56	18.00	109.03	251.60	1181.60	2.75	930.0
243	74.92	172.88	1152.88	18.00	86.85	200.42	1180.42	2.75	980.0
244	82.01	189.26	1139.26	18.00	104.40	240.92	1190.92	2.75	950.0
245	96.34	222.32	1152.32	18.00	109.06	251.67	1181.67	2.75	930.0
248	63.45	146.42	1148.42	18.00	88.06	203.20	1205.20	2.75	1002.0
250	65.45	151.05	1151.05	18.00	81.26	187.52	1187.52	2.75	1000.0
251	73.76	170.23	1150.23	18.00	90.18	208.12	1188.12	2.75	980.0
252	57.17	131.94	1151.94	18.00	72.15	166.50	1186.50	2.75	1020.0
253	58.08	134.03	1154.03	18.00	71.15	164.20	1184.20	2.75	1020.0
254	69.11	159.48	1148.48	18.00	89.34	206.17	1195.17	2.75	989.0
255	71.27	164.47	1148.47	18.00	91.41	210.95	1194.95	2.75	984.0
256	73.00	168.46	1148.46	18.00	93.14	214.95	1194.95	2.75	980.0
257	73.01	168.48	1148.48	18.00	93.24	215.18	1195.18	2.75	980.0
258	63.04	145.48	1148.48	18.00	83.28	192.18	1195.18	2.75	1003.0
259	77.34	178.48	1148.48	18.00	97.58	225.19	1195.19	2.75	970.0
260	77.34	178.48	1148.48	18.00	97.58	225.19	1195.19	2.75	970.0
261	92.50	213.46	1148.46	18.00	112.52	259.67	1194.67	2.75	935.0
262	67.04	154.70	1089.70	6.00	67.20	155.07	1090.07	0.00	935.0
263	69.22	159.73	1089.73	6.00	69.36	160.07	1090.07	0.00	930.0
264	67.04	154.71	1089.71	6.00	67.20	155.07	1090.07	0.00	935.0
265	84.45	194.89	1089.89	6.00	84.53	195.07	1090.07	0.00	895.0
266	85.93	198.30	1148.30	18.00	106.36	245.44	1195.44	2.75	950.0
267	101.69	234.66	1089.66	6.00	101.87	235.07	1090.07	0.00	855.0
268	114.56	264.36	1089.36	6.00	114.86	265.07	1090.07	0.00	825.0
269	101.58	234.41	1089.41	6.00	101.86	235.07	1090.07	0.00	855.0
270	82.09	189.43	1089.43	6.00	82.36	190.07	1090.07	0.00	900.0
271	90.76	209.44	1089.44	6.00	91.03	210.07	1090.07	0.00	880.0
272	101.62	234.51	1089.51	6.00	101.86	235.07	1090.07	0.00	855.0

Maximum / Minimum Report

273	90.24	208.25	1148.25	18.00	110.38	254.71	1194.71	2.75	940.0
274	87.69	202.36	1148.36	18.00	107.83	248.85	1194.85	2.75	946.0
275	84.66	195.36	1148.36	18.00	104.80	241.85	1194.85	2.75	953.0
276	116.78	269.48	1089.48	6.00	117.03	270.07	1090.07	0.00	820.0
277	96.66	223.06	1086.06	6.00	98.39	227.05	1090.05	0.00	863.0
278	108.76	250.97	1085.97	6.00	110.52	255.05	1090.05	0.00	835.0
279	115.24	265.94	1085.94	6.00	117.02	270.05	1090.05	0.00	820.0
280	110.92	255.97	1085.97	6.00	112.69	260.05	1090.05	0.00	830.0
281	110.92	255.96	1085.96	6.00	112.69	260.05	1090.05	0.00	830.0
282	71.93	166.00	1086.00	6.00	73.69	170.05	1090.05	0.00	920.0
283	89.24	205.94	1085.94	6.00	91.02	210.05	1090.05	0.00	880.0
284	64.52	148.90	1088.90	6.00	65.03	150.06	1090.06	2.75	940.0
285	64.53	148.91	1088.91	6.00	65.03	150.06	1090.06	2.75	940.0
286	60.25	139.05	1089.05	6.00	60.69	140.06	1090.06	2.75	950.0
287	55.92	129.05	1089.05	6.00	56.36	130.06	1090.06	2.75	960.0
288	71.32	164.60	1089.60	6.00	71.53	165.07	1090.07	2.75	925.0
289	92.76	214.06	1089.06	6.00	93.20	215.07	1090.07	0.00	875.0
290	59.19	136.60	1156.60	18.00	65.61	151.40	1171.40	2.75	1020.0
291	61.03	140.85	1156.85	47.25	66.87	154.30	1170.30	32.75	1016.0
292	75.70	174.69	1089.69	6.00	75.86	175.07	1090.07	0.00	915.0
293	64.86	149.69	1089.69	6.00	65.03	150.07	1090.07	0.00	940.0
294	82.19	189.67	1089.67	6.00	82.36	190.07	1090.07	0.00	900.0
295	59.24	136.70	1089.70	6.00	59.40	137.07	1090.07	0.00	953.0
296	85.93	198.30	1148.30	18.00	106.36	245.44	1195.44	2.75	950.0
297	80.04	184.70	1089.70	6.00	80.20	185.07	1090.07	0.00	905.0
298	68.59	158.29	1148.29	18.00	88.98	205.34	1195.34	2.75	990.0
299	83.77	193.31	1148.31	18.00	104.21	240.49	1195.49	2.75	955.0
300	61.30	141.45	1148.45	18.00	81.87	188.94	1195.94	2.75	1007.0
301	70.33	162.29	1148.29	18.00	90.70	209.31	1195.31	2.75	986.0
302	86.00	198.47	1148.47	18.00	110.42	254.81	1204.81	2.75	950.0
303	86.00	198.47	1148.47	18.00	110.22	254.35	1204.35	2.75	950.0
304	75.18	173.49	1148.49	18.00	98.84	228.09	1203.09	2.75	975.0
305	74.74	172.47	1148.47	18.00	98.69	227.75	1203.75	2.75	976.0
306	73.00	168.47	1148.47	18.00	97.18	224.27	1204.27	2.75	980.0
307	86.00	198.47	1148.47	18.00	109.92	253.67	1203.67	2.75	950.0
308	75.17	173.47	1148.47	18.00	99.36	229.30	1204.30	2.75	975.0
309	86.00	198.47	1148.47	18.00	110.14	254.17	1204.17	2.75	950.0
310	106.56	245.91	1085.91	6.00	108.36	250.05	1090.05	0.00	840.0
311	81.67	188.46	1148.46	18.00	101.73	234.76	1194.76	2.75	960.0
312	108.68	250.81	1145.81	18.00	126.84	292.70	1187.70	2.75	895.0
313	102.21	235.87	1145.87	18.00	120.34	277.70	1187.70	2.75	910.0
314	86.17	198.85	1148.85	18.00	103.64	239.18	1189.18	2.75	950.0
315	96.62	222.98	1145.98	18.00	114.74	264.79	1187.79	2.75	923.0
316	101.88	235.12	1146.12	18.00	119.94	276.80	1187.80	2.75	911.0
317	99.18	228.89	1085.89	6.00	100.99	233.05	1090.05	0.00	857.0
318	119.55	275.88	1085.88	6.00	121.36	280.05	1090.05	0.00	810.0
319	93.59	215.98	1145.98	18.00	111.68	257.72	1187.72	2.75	930.0
320	100.07	230.93	1145.93	18.00	118.17	272.70	1187.70	2.75	915.0
321	71.77	165.62	1085.62	6.00	73.69	170.05	1090.05	2.75	920.0
322	147.60	340.62	1085.62	6.00	149.52	345.05	1090.05	2.75	745.0
323	119.44	275.64	1085.64	6.00	121.36	280.05	1090.05	2.75	810.0
324	102.10	235.62	1085.62	6.00	104.02	240.05	1090.05	2.75	850.0
325	72.16	166.52	1086.52	6.00	73.69	170.06	1090.06	2.75	920.0
326	95.22	219.75	1149.75	18.00	109.39	252.45	1182.45	2.75	930.0
327	93.46	215.67	1085.67	6.00	95.36	220.05	1090.05	0.00	870.0
328	108.73	250.92	1145.92	18.00	126.84	292.70	1187.70	2.75	895.0

Maximum / Minimum Report

329	77.85	179.66	1149.66	18.00	92.08	212.50	1182.50	2.75	970.0
330	87.74	202.48	1152.48	18.00	100.76	232.51	1182.51	2.75	950.0
331	83.08	191.72	1149.72	18.00	97.70	225.47	1183.47	2.75	958.0
332	72.74	167.86	1152.86	18.00	85.91	198.26	1183.26	2.75	985.0
333	68.02	156.97	1154.97	18.00	77.80	179.55	1177.55	2.75	998.0
334	74.47	171.84	1151.84	18.00	89.59	206.74	1186.74	2.75	980.0
338	67.61	156.03	1156.03	18.00	75.55	174.35	1174.35	2.75	1000.0
339	67.65	156.12	1156.12	18.00	75.36	173.91	1173.91	2.75	1000.0
O-AV-1	56.46	130.30	1156.30	18.00	61.56	142.06	1168.06	29.25	1026.0
I-AV-2	60.45	139.50	1154.50	18.00	73.40	169.40	1184.40	2.75	1015.0
FGN-BB	79.73	184.00	1139.00	0.00	79.73	184.00	1139.00	0.00	955.0
I-Pump-1	52.67	121.56	1111.56	19.00	74.97	173.00	1163.00	33.00	990.0
I-Pump-2	52.75	121.73	1111.73	19.00	74.97	173.00	1163.00	33.00	990.0
R-1	55.03	127.00	1112.00	19.00	77.13	178.00	1163.00	9.00	985.0
I-RV-1	97.57	225.16	1145.16	18.00	116.19	268.13	1188.13	2.75	920.0
I-RV-2	111.41	257.10	1147.10	18.00	126.70	292.39	1182.39	2.75	890.0
I-RV-R1	116.84	269.63	1144.63	18.00	135.50	312.69	1187.69	2.75	875.0
I-RV-R2	77.84	179.62	1149.62	18.00	92.08	212.50	1182.50	2.75	970.0
TANK-A	56.50	130.38	1156.38	18.00	61.54	142.02	1168.02	29.25	1026.0
TANK-B	60.91	140.57	1155.57	18.00	67.09	154.81	1169.81	29.50	1015.0
TANK-C	57.14	131.87	1156.87	47.25	62.89	145.14	1170.14	32.75	1025.0
O-Pump-1	68.70	158.53	1148.53	18.00	95.70	220.83	1210.83	2.75	990.0
O-Pump-2	68.70	158.53	1148.53	18.00	95.56	220.52	1210.52	2.75	990.0
O-AV-2	60.91	140.55	1155.55	18.00	67.09	154.82	1169.82	29.50	1015.0
I-AV-1	56.30	129.93	1155.93	18.00	64.57	149.00	1175.00	2.75	1026.0
O-RV-R1	93.20	215.08	1090.08	0.00	93.20	215.08	1090.08	0.00	875.0
O-RV-R2	52.00	120.00	1090.00	4.00	52.03	120.07	1090.07	0.00	970.0
O-RV-1	73.60	169.85	1089.85	5.00	73.70	170.07	1090.07	0.00	920.0
O-RV-2	86.70	200.08	1090.08	0.00	86.70	200.08	1090.08	0.00	890.0

***** HYDRAULIC ANALYSIS COMPLETED *****

HYDRAULIC ANALYSIS FULL OUTPUT REPORT

PROPOSED ELEVATED STORAGE TANK
CATNIP HILL ROAD
750,000 GALLON ALTERNATIVE

February 2014

Includes selected nodes and pipes, as well as maximum/minimum
reporting for all 72-hours of analysis

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* * * * * K Y P I P E 5 * * * * *
*
*           Pipe Network Modeling Software
*
*           Copyrighted by KYPIPE LLC
*           Version 5 - February 2010
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Date & Time: Wed Feb 26 10:28:49 2014

Master File : q:\hyddata\kypipe\new tank 2010\tank analysis 2014\revised tank analysis 2010 eps.KYP\revised tank analysis 2010 eps.P2K

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*****
S U M M A R Y   O F   O R I G I N A L   D A T A
*****

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U N I T S S P E C I F I E D

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FLOWRATE ..... = gallons/minute
HEAD (HGL) ..... = feet
PRESSURE ..... = psig
METERED FLOW ..... = gallons
POWER COST ..... = 0.050 $/kW-Hr

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R E G U L A T I N G V A L V E D A T A

VALVE LABEL	VALVE TYPE	VALVE SETTING (ft or gpm)
RV-1	PRV-1	1089.85
RV-2	PRV-1	1090.08
RV-R1	PRV-1	1090.08
RV-R2	PRV-1	1090.00

P I P E L I N E D A T A

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E NAME	NODE NAMES		LENGTH (ft)	DIAMETER (in)	ROUGHNESS COEFF.	MINOR LOSS COEFF.
	#1	#2				
1	52	239	2847.56	12.00	150.0000	4.70
2	13	107	1572.75	8.00	150.0000	4.70
3	208	107	536.71	12.00	150.0000	14.10
4	208	O-Pump-1	145.95	12.00	150.0000	0.00
5	6	7	2450.00	6.00	150.0000	0.00
6	98	8	565.00	6.00	150.0000	0.00
7	101	10	1690.00	6.00	150.0000	0.00
8	99	11	600.00	6.00	150.0000	0.00
9	3	84	400.00	6.00	150.0000	0.00
10	6	9	700.00	6.00	150.0000	0.00
11	4	7	950.00	4.00	150.0000	0.00
12	7	10	1640.00	4.00	150.0000	0.00
13	4	8	1976.79	6.00	150.0000	0.00
14	8	11	1480.00	6.00	150.0000	0.00
15	10	12	2950.00	4.00	150.0000	0.00
16	12	13	2000.00	6.00	150.0000	0.00
17	12	14	2600.00	4.00	150.0000	0.00
18	15	333	1517.68	6.00	150.0000	0.00
19	TANK-A	O-AV-1	93.52	6.00	150.0000	2.00
20	16	15	600.00	6.00	150.0000	0.00
21	172	96	560.67	6.00	150.0000	0.00
22	155	331	1152.91	4.00	150.0000	0.00
23	149	19	2227.95	10.00	150.0000	0.00
24	19	20	2900.00	3.00	150.0000	0.00
25	20	21	600.00	3.00	150.0000	0.00
26	21	22	200.00	3.00	150.0000	0.00
27	22	24	1100.00	2.00	150.0000	0.00

28	21	23	1100.00	3.00	150.0000	0.00
29	23	25	1050.00	3.00	150.0000	0.00
30	24	26	1050.00	2.00	150.0000	0.00
31	25	26	200.00	3.00	150.0000	0.00
32	23	24	200.00	3.00	150.0000	0.00
33	216	286	5346.15	10.00	150.0000	0.00
34	284	27	434.89	10.00	150.0000	0.00
35	153	29	2500.00	4.00	150.0000	0.00
36	29	195	1000.00	4.00	150.0000	0.00
37	208	O-Pump-2	140.78	12.00	150.0000	0.00
38	3	31	10.00	6.00	150.0000	2.00
39	209	I-Pump-2	142.29	12.00	150.0000	0.00
40	14	146	1740.00	6.00	150.0000	0.00
41	46	31	850.00	12.00	150.0000	2.00
42	31	47	530.00	8.00	150.0000	2.00
43	18	45	3000.00	4.00	150.0000	0.00
44	16	172	969.61	8.00	150.0000	0.00
45	35	287	2553.49	4.00	150.0000	0.00
46	34	36	1150.00	4.00	150.0000	0.00
47	49	325	2589.03	6.00	150.0000	0.00
48	46	47	900.00	8.00	150.0000	2.00
49	47	33	340.00	8.00	150.0000	0.00
50	34	37	3050.00	4.00	150.0000	0.00
51	33	38	570.00	6.00	150.0000	0.00
52	33	39	250.00	8.00	150.0000	0.00
53	38	39	1335.00	6.00	150.0000	0.00
54	39	40	740.00	8.00	150.0000	0.00
55	40	41	425.00	6.00	150.0000	0.00
56	40	42	575.00	8.00	150.0000	0.00
57	41	42	1415.00	6.00	150.0000	0.00
58	42	43	145.00	8.00	150.0000	0.00
59	91	51	1800.00	4.00	150.0000	0.00
60	66	17	9874.87	6.00	150.0000	9.00
61	91	129	500.00	6.00	150.0000	0.00
62	20	49	2000.00	4.00	150.0000	0.00
63	53	323	883.92	6.00	150.0000	0.00
64	54	55	2650.00	6.00	150.0000	0.00
65	54	56	3900.00	6.00	150.0000	0.00
66	56	57	1050.00	6.00	150.0000	0.00
67	57	58	1200.00	6.00	150.0000	0.00
68	58	327	1977.19	6.00	150.0000	0.00
69	58	60	1550.00	6.00	150.0000	0.00
70	61	60	5700.00	6.00	150.0000	0.00
71	27	49	3100.00	6.00	150.0000	0.00
72	62	61	1050.00	6.00	150.0000	0.00
73	62	32	5490.00	6.00	150.0000	0.00
74	63	133	4000.00	6.00	150.0000	0.00
75	64	63	3200.00	4.00	150.0000	0.00
76	65	277	2627.99	4.00	150.0000	0.00
77	65	82	2666.10	4.00	150.0000	0.00
78	209	I-Pump-1	97.71	12.00	150.0000	0.00
79	82	83	1610.54	4.00	150.0000	0.00
80	67	97	1030.00	4.00	150.0000	0.00
81	84	52	1600.00	6.00	150.0000	0.00
82	81	85	400.00	10.00	150.0000	0.00
83	71	80	4900.00	4.00	150.0000	0.00
84	78	244	4233.41	4.00	150.0000	0.00
85	160	181	2500.00	4.00	150.0000	0.00
86	76	77	1000.00	4.00	150.0000	0.00
87	75	77	2150.00	4.00	150.0000	0.00
88	73	75	1900.00	4.00	150.0000	0.00
89	73	74	1500.00	4.00	150.0000	0.00
90	72	235	1090.18	4.00	150.0000	0.00
91	70	72	1080.00	4.00	150.0000	0.00
92	70	76	2800.00	4.00	150.0000	0.00
93	97	117	2000.00	4.00	150.0000	0.00
94	97	70	1750.00	4.00	150.0000	0.00
95	68	116	700.00	8.00	150.0000	0.00
96	68	90	800.00	4.00	150.0000	0.00
97	135	174	719.19	8.00	150.0000	3.80
98-CV	69	128	15.00	8.00	150.0000	10.00
99	67	68	2700.00	8.00	150.0000	0.00
100	FGN-BB	69	170.00	6.00	130.0000	55.90
101	50	104	1015.00	6.00	150.0000	0.00
102	88	50	2225.00	6.00	150.0000	0.00
103	105	39	1430.00	6.00	150.0000	0.00
104	48	88	340.00	6.00	150.0000	0.00
105	106	48	785.00	6.00	150.0000	0.00
106	108	48	610.00	6.00	150.0000	0.00
107	77	71	920.00	4.00	150.0000	0.00
108	67	68	2700.00	4.00	150.0000	0.00

109	84	6	800.00	6.00	150.0000	0.00
110	85	140	800.00	10.00	150.0000	0.00
111	85	139	750.00	8.00	150.0000	0.00
112	92	46	1200.00	12.00	150.0000	0.00
113	92	81	20.00	10.00	150.0000	0.00
114	87	260	828.36	8.00	150.0000	2.00
115	194	30	2608.44	6.00	150.0000	1.50
116	29	51	1900.00	4.00	150.0000	0.00
117	332	17	4108.85	6.00	150.0000	0.00
118	123	332	1116.82	6.00	150.0000	0.00
119	123	242	2356.79	6.00	150.0000	0.00
120	124	167	3100.00	4.00	130.0000	0.00
121	O-AV-2	TANK-B	39.31	12.00	150.0000	0.00
122	122	253	1961.05	10.00	150.0000	2.50
123	192	207	2016.21	8.00	150.0000	1.50
124	90	185	1200.00	4.00	130.0000	0.00
125	87	43	2500.00	8.00	150.0000	0.00
126	124	37	4200.00	6.00	150.0000	0.00
127	94	71	750.00	6.00	150.0000	0.00
128	94	95	450.00	6.00	150.0000	0.00
129	I-AV-1	15	36.48	6.00	150.0000	0.00
130	94	119	3120.00	6.00	150.0000	0.00
131	86	95	2250.00	6.00	150.0000	0.00
132	95	76	440.00	6.00	150.0000	0.00
133-CV	209	208	279.75	12.00	150.0000	0.00
134	128	260	3534.86	4.00	120.0000	7.60
135	7	98	580.00	6.00	150.0000	0.00
136	98	99	1775.00	6.00	150.0000	0.00
137	11	100	475.00	6.00	150.0000	0.00
138	99	10	1170.00	6.00	150.0000	0.00
139	101	9	1000.00	6.00	150.0000	0.00
140	101	102	1100.00	6.00	150.0000	0.00
141	9	102	675.00	6.00	150.0000	0.00
142	9	103	350.00	6.00	150.0000	0.00
143	43	104	625.00	6.00	150.0000	0.00
144	104	105	860.00	6.00	150.0000	0.00
145	105	88	890.00	6.00	150.0000	0.00
146	106	47	425.00	6.00	150.0000	0.00
147	106	210	675.00	6.00	150.0000	0.00
148	210	108	715.00	12.00	150.0000	0.00
149	108	4	1300.00	12.00	150.0000	0.00
150	66	328	718.22	6.00	150.0000	2.00
151	109	110	750.00	6.00	150.0000	0.00
152	110	320	409.19	6.00	150.0000	0.00
153	111	112	700.00	6.00	150.0000	0.00
154	66	112	350.00	6.00	150.0000	0.00
155	112	113	750.00	6.00	150.0000	0.00
156	112	319	258.07	6.00	150.0000	0.00
157	234	330	220.67	8.00	150.0000	0.00
158	127	126	344.98	10.00	150.0000	0.00
159	140	52	800.00	10.00	150.0000	0.00
160	4	5	1450.00	12.00	150.0000	0.00
161	R-1	209	144.11	12.00	150.0000	0.00
162	137	294	3098.33	10.00	150.0000	1.50
163	18	149	2072.05	6.00	150.0000	1.50
164	19	284	1765.11	10.00	150.0000	1.50
165	140	139	750.00	8.00	150.0000	0.00
166	141	53	6324.12	6.00	150.0000	0.00
167	126	155	13.71	10.00	130.0000	0.00
168	200	137	14.55	10.00	130.0000	0.00
169	5	1	4201.48	12.00	150.0000	4.70
170	141	142	2112.00	6.00	150.0000	3.50
171	78	161	1835.31	6.00	150.0000	0.00
172	161	173	4000.00	6.00	150.0000	0.00
173	181	78	1949.34	6.00	150.0000	0.00
174	174	222	278.20	8.00	150.0000	0.00
175	164	118	2200.00	6.00	150.0000	0.00
176	118	117	700.00	6.00	150.0000	0.00
177	118	86	820.00	6.00	150.0000	0.00
178	119	86	3940.00	6.00	150.0000	0.00
179	92	175	1829.44	6.00	150.0000	7.60
180	176	183	575.00	8.00	150.0000	0.00
181	175	176	600.00	6.00	150.0000	0.00
182	175	177	600.00	6.00	150.0000	0.00
183	183	184	700.00	8.00	150.0000	0.00
184	196	62	3200.87	6.00	150.0000	0.00
185	16	122	2150.00	6.00	150.0000	0.00
186	128	121	495.00	4.00	150.0000	1.00
187	177	183	600.00	6.00	150.0000	0.00
188	16	122	2010.00	8.00	150.0000	2.10
189	184	174	500.00	8.00	150.0000	0.00

190	177	184	1000.00	6.00	150.0000	0.00
191	185	165	800.00	12.00	140.0000	0.00
192	125	326	936.84	10.00	150.0000	4.00
193	314	165	937.25	8.00	150.0000	0.00
194	68	90	800.00	8.00	150.0000	2.10
195	165	119	6100.00	6.00	150.0000	0.00
196	171	312	928.59	6.00	130.0000	0.00
197	171	171	2103.85	6.00	150.0000	0.00
198	180	186	1059.61	6.00	150.0000	0.00
199	186	187	2132.93	6.00	150.0000	0.00
200	187	I-RV-1	488.30	6.00	150.0000	0.00
201	145	188	1403.45	6.00	150.0000	2.30
202	4	189	688.30	6.00	150.0000	0.00
203	88	191	1166.85	6.00	150.0000	0.00
204	189	191	505.01	6.00	150.0000	0.00
205	191	197	961.25	6.00	150.0000	0.00
206	197	50	886.74	6.00	150.0000	0.00
207	197	198	1090.54	6.00	150.0000	0.00
208	197	199	499.88	6.00	150.0000	0.00
209	199	202	1104.61	6.00	150.0000	0.00
210	199	158	800.00	6.00	150.0000	0.00
211	115	127	901.39	4.00	150.0000	0.00
212-XX	69	128	15.00	2.00	150.0000	5.00
213	203	317	388.34	6.00	150.0000	0.00
214	134	141	1200.00	6.00	150.0000	2.00
215	30	134	2200.00	6.00	150.0000	2.00
216	129	93	450.00	6.00	150.0000	2.00
217	129	130	2300.00	6.00	150.0000	2.00
218	130	131	1700.00	6.00	150.0000	2.00
219	56	132	900.00	6.00	150.0000	1.00
220	133	61	1400.00	6.00	150.0000	2.00
221	128	138	600.00	8.00	150.0000	4.00
222	92	176	2200.00	8.00	150.0000	8.64
223	138	135	30.00	6.00	150.0000	9.60
224	204	203	1359.37	4.00	150.0000	0.00
225	204	310	1527.15	6.00	150.0000	0.00
226	205	206	1145.98	6.00	150.0000	0.00
227	205	203	2111.36	6.00	150.0000	0.00
228	207	219	1698.51	8.00	150.0000	0.00
229	207	250	701.01	6.00	150.0000	0.00
230	211	212	2005.89	6.00	150.0000	0.00
231	212	1	1472.83	6.00	150.0000	0.00
232	151	213	2317.84	6.00	150.0000	0.00
233	82	214	981.14	6.00	150.0000	0.00
234	214	215	1714.24	6.00	150.0000	0.00
235	215	151	1044.08	6.00	150.0000	0.00
236	214	215	1773.79	6.00	150.0000	0.00
237	285	28	1124.37	10.00	150.0000	0.00
238	216	218	995.43	6.00	150.0000	3.00
239	217	231	648.98	6.00	150.0000	0.00
240	218	228	806.86	6.00	150.0000	0.00
241	127	143	1465.00	4.00	150.0000	4.90
242	29	144	200.00	2.00	150.0000	2.90
243	14	145	200.00	4.00	150.0000	2.30
244	146	44	480.00	6.00	150.0000	2.30
245	146	147	800.00	6.00	150.0000	2.30
246	44	148	820.00	6.00	150.0000	2.30
247	83	282	2200.31	6.00	150.0000	4.60
248	83	150	2187.98	6.00	150.0000	4.00
249	150	151	2280.06	6.00	150.0000	2.20
250	153	152	1050.00	4.00	150.0000	2.00
251	28	153	300.00	4.00	150.0000	1.10
252	72	154	1480.00	4.00	150.0000	2.90
253	288	216	793.52	10.00	150.0000	0.00
254	156	66	650.00	6.00	150.0000	2.00
255	64	157	4155.70	4.00	150.0000	1.50
256	5	158	1400.00	4.00	130.0000	1.50
257	75	159	720.00	4.00	130.0000	1.50
258	219	314	3028.03	8.00	150.0000	0.00
259	165	220	1798.80	6.00	150.0000	0.00
260	220	221	1235.98	6.00	150.0000	0.00
261	220	221	1238.62	6.00	150.0000	0.00
262	220	251	1376.27	6.00	150.0000	0.00
263	77	160	1400.00	4.00	130.0000	2.00
264	222	87	1222.60	8.00	150.0000	0.00
265	184	223	258.83	6.00	150.0000	0.00
266	223	222	394.05	6.00	150.0000	0.00
267	176	224	321.17	6.00	150.0000	0.00
268	90	162	1000.00	6.00	130.0000	4.00
269	136	162	930.00	6.00	130.0000	2.50
270	163	162	1125.00	6.00	130.0000	3.50

271	136	163	360.00	6.00	130.0000	0.50
272	163	164	282.00	6.00	130.0000	0.80
273	136	164	1020.00	6.00	130.0000	3.10
274	116	136	350.00	6.00	130.0000	0.50
275	223	224	1360.35	6.00	150.0000	0.00
276	285	284	239.29	10.00	150.0000	0.00
277	227	225	749.09	6.00	150.0000	0.00
278	226	64	1294.34	4.00	150.0000	0.00
279	90	185	1200.00	8.00	140.0000	2.90
280	226	225	4000.00	6.00	150.0000	0.00
281	96	167	2988.15	4.00	150.0000	0.00
282	115	127	900.00	10.00	130.0000	0.90
283	166	124	1200.00	4.00	130.0000	1.50
284	167	34	3200.00	4.00	130.0000	1.50
285	168	169	1400.00	4.00	130.0000	1.50
286	65	168	1200.00	4.00	130.0000	1.50
287	227	283	1296.85	6.00	150.0000	0.00
288	170	171	506.08	6.00	130.0000	1.50
289	127	329	2936.44	4.00	130.0000	1.50
290	80	179	2650.00	6.00	150.0000	1.50
291	179	180	1495.10	6.00	150.0000	3.00
292	181	78	2300.00	4.00	150.0000	1.50
293	181	182	1700.00	6.00	150.0000	1.50
294	31	210	810.63	12.00	150.0000	0.00
295	1	334	2484.13	12.00	150.0000	0.00
296	333	2	864.41	6.00	150.0000	4.70
297	225	229	2054.14	6.00	150.0000	0.00
298	218	228	2562.32	6.00	150.0000	6.00
299	228	217	722.51	6.00	150.0000	0.00
300	218	292	815.37	6.00	150.0000	0.00
301	170	178	1000.00	6.00	130.0000	1.50
302	201	267	683.60	6.00	130.0000	1.50
303	O-RV-R1	201	10.00	4.00	130.0000	0.75
304	O-RV-R2	200	10.00	6.00	130.0000	0.75
305	217	231	1599.56	6.00	150.0000	0.00
306	231	265	575.39	6.00	150.0000	0.00
307	196	230	1600.00	6.00	150.0000	9.00
308	120	49	1600.00	6.00	150.0000	0.00
309	230	120	2650.00	6.00	150.0000	0.00
310	230	120	2700.00	6.00	150.0000	0.00
311	55	232	1676.90	6.00	150.0000	0.00
312	232	321	2872.09	6.00	150.0000	0.00
313	123	234	926.33	6.00	130.0000	0.00
314	235	73	2079.82	4.00	150.0000	0.00
315	235	236	1753.11	6.00	150.0000	0.00
316	97	237	1988.28	6.00	150.0000	0.00
317	145	238	3439.89	6.00	130.0000	1.50
318	12	14	1423.01	6.00	150.0000	0.00
319	190	16	1800.00	8.00	130.0000	0.00
320	89	192	2100.00	8.00	130.0000	1.50
321	193	276	802.92	6.00	130.0000	3.00
322	286	285	1449.66	10.00	150.0000	0.00
323	194	51	625.00	6.00	130.0000	1.50
324	194	93	3500.00	6.00	150.0000	1.50
325	195	196	1842.36	6.00	150.0000	3.00
326	195	30	1500.00	6.00	130.0000	0.00
327	14	145	626.29	6.00	150.0000	2.30
328	239	107	2786.36	12.00	150.0000	0.00
329	239	240	785.30	6.00	150.0000	9.40
330	240	102	804.73	6.00	150.0000	0.00
331	242	245	620.65	6.00	150.0000	0.00
332	242	243	1354.14	6.00	150.0000	0.00
333	243	124	687.53	6.00	150.0000	0.00
334	O-RV-1	193	2532.31	6.00	150.0000	0.00
335	I-RV-2	125	4437.75	6.00	150.0000	0.00
336-XX	331	115	151.49	6.00	150.0000	0.00
337-XX	333	190	178.62	6.00	150.0000	0.00
338	89	I-AV-2	30.69	12.00	150.0000	0.00
339	244	79	918.36	4.00	150.0000	0.00
340	248	238	1271.24	6.00	150.0000	0.00
341	291	167	1686.06	12.00	150.0000	4.00
342	250	211	1623.75	6.00	150.0000	0.00
343	251	219	323.73	6.00	150.0000	0.00
344	251	250	1790.74	6.00	150.0000	0.00
345	192	252	1510.04	6.00	130.0000	0.00
346	190	252	2222.23	6.00	130.0000	0.00
347	252	250	1786.66	6.00	130.0000	0.00
348	253	89	1088.95	10.00	150.0000	0.00
349	253	192	2494.92	6.00	150.0000	2.50
350	198	254	1058.03	6.00	150.0000	0.00
351	254	255	715.41	6.00	150.0000	0.00

352	256	261	1475.59	10.00	150.0000	0.00
353	256	255	268.72	6.00	150.0000	2.00
354	254	257	576.56	6.00	150.0000	0.00
355	257	258	1064.79	6.00	130.0000	0.00
356	258	259	1563.02	6.00	130.0000	0.00
357	259	257	1126.59	6.00	130.0000	0.00
358	260	256	1103.07	10.00	150.0000	0.00
359	259	260	190.36	6.00	150.0000	2.00
360	261	67	2279.79	8.00	150.0000	0.00
361	262	228	739.01	6.00	150.0000	0.00
362	262	263	623.26	6.00	150.0000	0.00
363	263	264	480.37	6.00	150.0000	0.00
364	265	O-RV-2	313.69	6.00	150.0000	0.00
365	263	265	981.23	6.00	150.0000	0.00
366	222	300	498.50	6.00	150.0000	11.40
367	296	266	844.74	6.00	150.0000	0.00
368	267	168	1316.40	6.00	130.0000	0.00
369	267	272	1359.71	6.00	130.0000	7.50
370	268	289	1061.73	6.00	130.0000	0.00
371	269	268	1008.26	6.00	130.0000	0.00
372	269	271	1704.77	6.00	130.0000	3.00
373	271	270	684.10	6.00	130.0000	0.00
374	270	269	1704.42	6.00	130.0000	0.00
375	272	271	792.79	6.00	130.0000	0.00
376	236	74	2481.05	6.00	150.0000	0.00
377	256	274	978.51	6.00	150.0000	7.60
378	273	237	852.00	6.00	150.0000	0.00
379	274	273	1538.58	6.00	150.0000	0.00
380	274	275	450.54	6.00	150.0000	7.60
381	276	268	985.15	6.00	130.0000	0.00
382	277	204	1628.35	4.00	150.0000	0.00
383	277	278	1235.76	6.00	150.0000	0.00
384	278	279	1205.45	6.00	150.0000	0.00
385	278	280	1478.76	6.00	150.0000	0.00
386	289	65	2150.20	6.00	130.0000	0.00
387	281	280	1596.72	6.00	150.0000	0.00
388	282	32	4362.15	6.00	130.0000	0.00
389	283	229	723.00	6.00	150.0000	0.00
390	282	283	1039.85	6.00	130.0000	1.50
391	287	286	489.52	6.00	150.0000	0.00
392	18	288	2203.94	6.00	150.0000	0.00
393	310	205	1040.49	6.00	150.0000	0.00
394	279	310	1346.09	6.00	150.0000	0.00
395	200	288	3927.83	4.00	150.0000	13.50
396	122	332	3782.65	6.00	150.0000	0.00
397	331	17	1651.95	6.00	150.0000	0.00
398	330	172	3865.69	8.00	150.0000	0.00
399	321	233	1289.26	6.00	150.0000	0.00
400	290	339	3581.07	6.00	150.0000	0.00
401	290	291	1310.32	6.00	131.8326	0.00
402	15	338	880.59	12.00	150.0000	0.00
403	292	262	753.68	6.00	150.0000	0.00
404	292	293	949.20	6.00	150.0000	0.00
405	294	288	718.86	10.00	150.0000	0.00
406	293	294	727.50	6.00	150.0000	1.50
407	293	295	514.70	6.00	150.0000	3.00
408	295	297	1965.71	6.00	150.0000	1.50
409	295	264	1212.65	6.00	150.0000	1.50
410	264	297	1133.74	6.00	150.0000	1.50
411	296	298	1188.85	6.00	150.0000	3.80
412	299	296	485.88	6.00	150.0000	0.00
413	273	301	2033.09	6.00	150.0000	22.80
414	266	299	1322.21	6.00	150.0000	0.00
415	266	301	2517.78	6.00	150.0000	0.00
416	301	298	406.56	6.00	150.0000	0.00
417	300	299	1896.99	6.00	150.0000	0.00
418	13	302	379.61	6.00	150.0000	0.00
419	302	303	544.15	6.00	150.0000	0.00
420	302	306	1025.43	6.00	150.0000	0.00
421	304	102	663.55	6.00	150.0000	0.00
422	304	240	258.38	6.00	150.0000	0.00
423	303	309	375.31	6.00	150.0000	0.00
424	303	308	760.28	6.00	150.0000	0.00
425	306	305	590.36	6.00	150.0000	0.00
426	305	304	1426.99	6.00	150.0000	0.00
427	307	304	660.11	6.00	150.0000	0.00
428	305	307	1018.44	6.00	150.0000	0.00
429	308	306	531.76	6.00	150.0000	0.00
430	309	307	1056.64	6.00	150.0000	0.00
431	255	311	888.13	6.00	150.0000	4.00
432	261	67	1971.29	4.00	120.0000	0.00

433	311	261	439.17	6.00	150.0000	0.00
434	312	109	365.33	6.00	130.0000	0.00
435	312	313	497.67	6.00	130.0000	0.00
436	186	315	4737.70	6.00	140.0000	0.00
437	114	315	568.21	6.00	140.0000	0.00
438	315	316	1850.47	6.00	140.0000	0.00
439	316	156	239.08	6.00	140.0000	0.00
440	316	314	5395.46	6.00	140.0000	0.00
441	317	226	905.99	6.00	150.0000	0.00
442	317	318	2336.81	6.00	150.0000	0.00
443	318	206	1716.75	6.00	150.0000	0.00
444	313	110	1422.51	6.00	150.0000	0.00
445	113	156	330.31	6.00	150.0000	0.00
446	319	114	201.93	6.00	150.0000	0.00
447	319	59	481.31	6.00	150.0000	0.00
448	111	59	248.52	6.00	150.0000	0.00
449	330	115	6864.89	8.00	150.0000	0.00
450	233	321	1289.26	6.00	150.0000	0.00
451	321	322	4343.86	6.00	150.0000	0.00
452	323	54	3016.08	6.00	150.0000	0.00
453	322	323	5147.69	6.00	150.0000	0.00
454	322	324	1505.02	6.00	150.0000	0.00
455	142	30	4608.91	6.00	150.0000	0.00
456	325	32	1760.97	6.00	150.0000	0.00
457	325	25	2653.81	6.00	150.0000	0.00
458	326	115	2813.16	10.00	150.0000	0.00
459	326	241	5529.53	6.00	150.0000	16.00
460	327	132	897.92	6.00	150.0000	0.00
461	320	111	190.81	6.00	150.0000	0.00
462	328	109	176.74	6.00	150.0000	0.00
463	328	320	384.90	6.00	150.0000	2.00
464	110	313	348.77	6.00	150.0000	0.00
465	332	122	3795.23	8.00	150.0000	0.00
466	334	190	1378.67	12.00	150.0000	0.00
467	333	338	715.33	6.00	131.8326	0.00
468	2	334	154.83	12.00	150.0000	0.00
469	291	339	3422.44	12.00	150.0000	0.00
470	291	TANK-C	50.00	12.00	150.0000	4.00
472	245	241	735.48	6.00	150.0000	0.00
473	338	339	334.85	12.00	150.0000	0.00
474-XX	245	166	180.91	6.00	150.0000	12.00

P U M P / L O S S E L E M E N T D A T A

THERE IS A DEVICE AT NODE Pump-1 DESCRIBED BY THE FOLLOWING DATA: (ID= 1)

HEAD (ft)	FLOWRATE (gpm)	EFFICIENCY (%)
96.00	0.00	0.00
90.00	500.00	75.00
74.00	800.00	81.00
59.00	1000.00	75.00
21.00	1300.00	55.00

THERE IS A DEVICE AT NODE Pump-2> (ID= 1)

N O D E D A T A

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	JUNCTION ELEVATION (ft)	EXTERNAL GRADE (ft)
1	Aldridge Far	0.68	985.00	
2		0.00	980.00	
3		0.00	977.00	
4	US-68 & Bran	0.21	997.00	
5	US-68 @ Oris	2.10	1000.00	
6	Lntrn&oldcoc	4.99	970.00	
7		7.64	1000.00	
8	Lantern Ct	2.67	1020.00	
9		0.50	970.00	
10		1.43	1000.00	
11		3.29	1020.00	
12		1.74	955.00	
13		1.32	927.00	

14		1.74	968.00
15		1.19	1032.00
16		1.64	1028.00
17		10.89	979.00
18	US68 & Barkl	4.51	955.00
19	US68 & KY29	1.44	949.00
20		0.28	870.00
21		0.40	887.00
22		0.40	887.00
23		0.40	877.00
24		0.40	877.00
25	Murphy Ln EO	0.40	870.00
26		0.40	870.00
27	US68 & CC rd	2.03	936.00
28		0.00	927.00
29		0.61	900.00
30		5.07	898.00
31		0.00	977.00
32	Clear&Richar	4.73	875.00
33		0.07	996.00
34		1.87	995.00
35		0.24	900.00
36	Catnip Hill	0.24	990.00
37	end o Sagart	2.23	990.00
38		0.21	984.00
39		1.39	985.00
40		0.34	992.00
41		0.44	986.00
42		1.03	988.00
43		0.97	996.00
44		0.43	970.00
45	BARBLEY EST	3.47	910.00
46		0.94	968.00
47		0.56	991.00
48		4.08	975.00
49		3.72	920.00
50	End of Fores	4.85	986.00
51	Roseglade Fa	1.35	935.00
52	End of Wynfr	2.70	940.00
53		3.38	798.00
54	Pekin & Trot	4.05	914.00
55		1.35	885.00
56		1.69	830.00
57		1.01	830.00
58		1.01	825.00
59	Keene	0.57	920.00
60		0.68	800.00
61		1.35	896.00
62		1.69	865.00
63		0.68	895.00
64	KY 1267 & Mc	4.05	889.00
65	Clear&KenTro	3.45	873.00
66	Keene 4 way	4.35	905.00
67		0.54	992.00
68		4.18	955.00
69		1.96	955.00
70		2.05	940.00
71		0.00	935.00
72		2.06	950.00
73		3.52	930.00
74		0.95	940.00
75		3.86	940.00
76		0.64	980.00
77	DF & Woods R	6.08	970.00
78	James Ln & D	5.72	928.00
79	James Lane E	3.44	915.00
80		3.71	947.00
81	us68 @ wynfr	0.00	965.00
82	CC Rd @ Chan	2.11	922.00
83	CC Rd @ CCE	2.23	913.00
84	Oldcoh&wdbri	2.37	950.00
85	wynfre&access	1.35	970.00
86		5.68	935.00
87		0.65	990.00
88	Spgcrst&Thou	3.79	995.00
89		0.00	1005.00
90		0.88	970.00
91		0.92	950.00
92	Bellerive ti	1.01	965.00
93	EOL KY 29	0.92	952.00
94		5.41	963.00

95		2.72	990.00
96		0.00	1033.00
97		4.72	958.00
98		0.66	1010.00
99		3.29	1010.00
100		0.81	1020.00
101		4.53	990.00
102		2.20	975.00
103		0.97	965.00
104		2.70	1003.00
105		3.52	1016.00
106		3.79	990.00
107		0.00	950.00
108		1.14	972.00
109	1267 @ Kings	1.70	895.00
110	Kingston	0.74	905.00
111	Keenesway	0.70	922.00
112	King @ Cemet	1.74	931.00
113	Kingston	1.37	935.00
114	Cemetery	0.30	948.00
115		0.26	950.00
116		0.00	961.00
117		0.61	950.00
118		0.47	950.00
119	Champions	7.54	950.00
120	Walden	1.18	900.00
121		0.68	950.00
122		0.68	980.00
123	Mattews Ln	0.68	950.00
124	Rhinehammer	0.00	1000.00
125	KY 169	0.84	940.00
126	10"PRV upstr	0.00	970.00
127		1.82	950.00
128		0.07	955.00
129		0.81	935.00
130		0.00	890.00
131	Drakes Ln EO	0.81	935.00
132	Tankersly	1.35	830.00
133		0.00	810.00
134		3.04	885.00
135		0.00	975.00
136		1.35	955.00
137	10"PRV dnstr	0.00	970.00
138		0.00	970.00
139	BELLARIVE PL	1.35	970.00
140		1.35	965.00
141	ICHTHUS & 68	0.68	850.00
142	ICHTHUS	1.69	885.00
143		1.35	958.00
144		4.39	885.00
145	Bran @ Chris	0.93	960.00
146		1.35	935.00
147		1.35	940.00
148		0.68	950.00
149	US 68	0.00	940.00
150	CCE unit 1	2.23	925.00
151	CCE unit2	2.64	901.00
152		2.70	927.00
153		0.00	927.00
154		1.01	950.00
155	PRV2	0.00	970.00
156	1267 @ Canad	1.35	898.00
157	KY1267 EOL	1.35	840.00
158	End of Ponde	3.99	1000.00
159	End of Tashm	3.14	940.00
160		6.76	941.00
161	Hawks Pt & D	3.07	905.00
162		2.70	975.00
163		0.68	960.00
164		0.68	958.00
165	12" Cambrige	4.02	972.00
166	Rhinehammer	2.70	990.00
167		0.34	995.00
168		0.00	880.00
169		3.38	880.00
170	KT @ Liberty	2.03	890.00
171	KT @ Liberty	2.03	890.00
172	catnip @ 68	0.00	1020.00
173	Stirling Est	3.07	850.00
174	S. Elk Rd @	1.35	985.00
175	Wind Haven &	1.18	945.00

176	Windward Way	2.03	970.00
177	Windy Knoll	2.03	950.00
178	PRV1	0.00	875.00
179	Woods Rd Est	2.10	891.00
180	Longnecker F	0.34	920.00
181	Parker & Del	2.37	895.00
182	End of Parke	2.60	915.00
183	Windy Knoll	1.35	975.00
184	Wind Haven D	2.03	960.00
185	12"-8" Cambr	0.00	963.00
186	Woods Rd @ 1	1.35	925.00
187	Clear Ck @ 1	0.20	925.00
188	Pannel Ext.	0.34	955.00
189	W.Brannon @	2.43	1005.00
190	US68 & Harod	0.00	998.00
191	W.Brannon @	1.82	985.00
192	Steel Estate	2.22	1028.00
193	EOL Clear Ck	1.01	850.00
194	Bicknell Ln	0.00	920.00
195	McCauly & US	0.51	898.00
196	McCauley rd	0.71	910.00
197	W.Brannon @	2.84	1003.00
198	W.Brannon @	1.82	975.00
199	Foaling Rg	2.03	985.00
200	dwnstrm PRV	0.00	970.00
201	dwnstrm PRV	0.00	875.00
202		1.62	980.00
203	KTroy @ Colo	2.64	870.00
204		2.84	850.00
205	Colonial Est	4.87	850.00
206	Colonial Est	3.04	840.00
207	Widows Watch	0.00	980.00
208		0.00	990.00
209		0.00	990.00
210		0.23	960.00
211	Keene Manor	4.05	1010.00
212	Keene Manor	5.07	960.00
213	CCE unit 2	1.01	860.00
214	Chandamere	3.04	919.00
215	Chandamere	3.04	910.00
216	US 68 @ Bark	0.00	935.00
217	Bark Woods	2.60	960.00
218	Sgate@Deerfi	4.26	920.00
219	Perkins	0.00	980.00
220	Cambridge Ea	2.97	970.00
221	Cambridge Ea	2.70	976.00
222	Windhaven@KY	0.61	985.00
223	Wind Hav @ W	2.03	975.00
224	Windward@Woo	2.64	980.00
225	Hollaway	3.04	920.00
226	KY1267 from	0.00	885.00
227	Hollaway Est	1.42	890.00
228	Stonegate@St	3.68	921.00
229	Hollaway Est	2.03	870.00
230	Walden	1.89	875.00
231	tugger cul d	1.89	905.00
232	Hagin @ Peki	0.47	871.00
233	Hagin EOL	1.18	940.00
234		0.68	950.00
235	Del Woods	0.68	945.00
236	Lot 20 DW	0.00	935.00
237	Emerald Est	2.60	965.00
238	Chris Haven	0.93	1030.00
239	Morgan @ Bel	2.43	960.00
240	Morgan Dr	1.01	975.00
241	FH on Ramsey	0.00	980.00
242		0.00	930.00
243		0.00	980.00
244		0.00	950.00
245		0.00	930.00
248	EOL Chris Ha	0.00	1002.00
250		4.51	1000.00
251		2.64	980.00
252	Harrods Ridg	3.16	1020.00
253		1.26	1020.00
254		1.26	989.00
255	W. Brannon L	0.95	984.00
256	KY1267	0.00	980.00
257	Eq Lakes	1.58	980.00
258		2.22	1003.00
259		1.39	970.00

260		0.00	970.00	
261		0.00	935.00	
262	BW	1.08	935.00	
263	BW unit 7	1.08	930.00	
264	BW unit 7	1.08	935.00	
265	BW unit 7	0.45	895.00	
266	Cambrig Nort	1.97	950.00	
267	Cave Run @ K	0.00	855.00	
268	Clear Cr Tie	0.00	825.00	
269	Cave Run Cr	1.26	855.00	
270	Cave Run Cr	0.95	900.00	
271	Cave Run Cr	1.26	880.00	
272	Cave Run Blv	1.74	855.00	
273	Renaissance	1.82	940.00	
274	Renasnce	1.06	946.00	
275	Renasance	0.61	953.00	
276		0.00	820.00	
277	K-T @ The Oa	0.00	863.00	
278	The Oaks	1.29	835.00	
279	The Oaks	1.57	820.00	
280	The Oaks	1.72	830.00	
281	The Oaks	1.57	830.00	
282	Clear C @ Ho	1.01	920.00	
283	Holloway	0.00	880.00	
284		0.00	940.00	
285		0.00	940.00	
286	US 68 @ KY 2	0.00	950.00	
287	KY 29	0.00	960.00	
288		2.84	925.00	
289		0.00	875.00	
290	Forest Hills	4.93	1020.00	
291	Forest Hills	1.89	1016.00	
292	BW	0.00	915.00	
293	BW7	0.54	940.00	
294	BW7 @ US68	0.00	900.00	
295	BW7	0.97	953.00	
296	Cambrig Nort	1.06	950.00	
297	BW7	1.08	905.00	
298	Cambrig Nort	1.51	990.00	
299	Cambrig Nort	2.73	955.00	
300	Cambrig Nort	0.00	1007.00	
301	Cambrig Nort	0.00	986.00	
302	Clays xing	2.84	950.00	
303	Clays xing	2.84	950.00	
304	Clays xing	3.12	975.00	
305	Clays xing	4.26	976.00	
306	Clays xing	2.84	980.00	
307	Clays xing	4.83	950.00	
308	Clays xing	2.84	975.00	
309	Clays xing	4.26	950.00	
310		0.00	840.00	
311	The Lakes II	1.58	960.00	
312	1267 @ Cush	0.28	895.00	
313	Cushingberry	0.57	910.00	
314		0.00	950.00	
315	Cemetery@169	0.43	923.00	
316	Keene 1267 @	0.00	911.00	
317	1267@Ebeneze	0.00	857.00	
318	Ebenezer Chu	0.28	810.00	
319	Keene	1.28	930.00	
320	Kingston @ K	0.28	915.00	
321	Hagin Ln Pek	0.28	920.00	
322	Pekin Ln	0.57	745.00	
323	KY 33 Pekin	0.28	810.00	
324	Pekin Ln EOL	0.85	850.00	
325	Clear Creek	0.00	920.00	
326	KY 169 Rhine	0.84	930.00	
327		0.28	870.00	
328	1267 in Keen	0.28	895.00	
329		0.28	970.00	
330		0.00	950.00	
331		0.00	958.00	
332		0.00	985.00	
333		0.00	998.00	
334		0.00	980.00	
338		0.00	1000.00	
339		0.00	1000.00	
O-AV-1	Altitude Val	0.00	1026.00	
I-AV-2		0.00	1015.00	
FGN-BB		----	955.00	1139.00
I-Pump-1	perless 1240	0.00	990.00	

I-Pump-2	perless 1240	0.00	990.00	
R-1	KAWC Tank	----	985.00	1150.00
I-RV-1		0.00	920.00	
I-RV-2	Barkley W. P	0.00	890.00	
I-RV-R1	Keene PRV	0.00	875.00	
I-RV-R2	US 68 PRV	0.00	970.00	
TANK-A	Old Tank	----	1026.00	1165.00
TANK-B	New Tank - P	----	1015.00	1165.00
TANK-C	Chinkapin Ta	----	1025.00	1165.00
O-Pump-1	perless 1240	0.00	990.00	
O-Pump-2	perless 1240	0.00	990.00	
O-AV-2		0.00	1015.00	
I-AV-1	Altitude Val	0.00	1026.00	
O-RV-R1	Keene PRV	----	875.00	1090.08
O-RV-R2	US 68 PRV	----	970.00	1090.00
O-RV-1		----	920.00	1089.85
O-RV-2	Barkley W. P	----	890.00	1090.08

O U T P U T O P T I O N D A T A

OUTPUT SELECTION: THE FOLLOWING RESULTS ARE INCLUDED IN THE TABULATED OUTPUT

ALL CLOSED PIPES ARE NOTED
ALL PIPES WITH PUMPS

FOLLOWING PIPES

2
3
120
123
169
281
284
320
328
338
341
348
469
473

FOLLOWING JUNCTION NODES

36
66
79
131
157
173
182
217
233

MAXIMUM AND MINIMUM PRESSURES = 10
MAXIMUM AND MINIMUM HEAD LOSS/1000 = 5

E P S D A T A

TOTAL TIME FOR SIMULATION = 71.000
NORMAL TIME PERIOD FOR CALCULATIONS = 0.250
NORMAL TIME PERIOD FOR TABULATED OUTPUT = 1.000
NORMAL TIME PERIOD FOR POSTPROCESSING FILE = 0.250

EPS OUTPUT SELECTION: THE ABOVE TABULATED OUTPUT OPTIONS ARE INCLUDED
WITH THE FOLLOWING EXTENDED PERIOD PRINT OPTIONS

INTERMEDIATE REPORTS (tank status, flow meter, regulating valve, etc.)
SUPPRESSED FOR ALL INTERMEDIATE TIME PERIODS
SUPPRESSED FOR ALL STATUS CHANGES (tanks, pressure switches, etc.)

V A R I A B L E H E A D T A N K D A T A

TANK NAME (*)	MAXIMUM ELEVATION (ft)	MINIMUM ELEVATION (ft)	TANK CAPACITY (gal)	INITIAL VOLUME (gal)	EXTERNAL FLOW (gpm)
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TANK-A(1)	1169.20	1153.00	54826.	40612.	0.00
TANK-B(1)	1171.00	1135.00	528802.	440668.	0.00
TANK-C(1)	1171.00	1133.00	803779.	676867.	0.00

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

P R E S S U R E S W I T C H D A T A

REFERENCE ELEMENT	REFERENCE NODE	SWITCHING GRADES (ft)	
Pump-1	291	1157.00	& 1170.00
AV-1	15	1133.00	& 1168.00
AV-2	89	1133.00	& 1170.00

S Y S T E M C O N F I G U R A T I O N

NUMBER OF PIPES(p) = 473
 NUMBER OF END NODES(j) = 339
 NUMBER OF PRIMARY LOOPS(l) = 130
 NUMBER OF SUPPLY NODES(f) = 5
 NUMBER OF SUPPLY ZONES(z) = 1

=====
 Time: 0.000
 Time: 0.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 0.0001 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 0.000

TIME FROM INITIATION OF EPS = 0.0001 HOURS (0.00AM, DAY: 1)

RESULTS OBTAINED AFTER 15 TRIALS: ACCURACY = 0.00009

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-246.09	1.64	0.18	1.57	1.16	1.04
3	208	107	1093.81	1.23	2.11	3.10	6.22	2.30
120	124	167	23.72	1.62	0.00	0.61	0.52	0.52
123	192	207	-255.32	2.25	0.06	1.63	1.15	1.12
169	5	1	748.00	4.77	0.33	2.12	1.21	1.14
281	96	167	32.39	2.13	0.00	0.83	0.71	0.71
284	167	34	-16.49	0.85	0.00	0.42	0.27	0.27
320	89	192	-252.64	3.00	0.06	1.61	1.46	1.43
328	239	107	-847.73	3.99	0.00	2.40	1.43	1.43
338	89	I-AV-2	519.97	0.02	0.00	1.47	0.58	0.58
341	291	167	-72.57	0.03	0.00	0.21	0.02	0.02
348	253	89	267.32	0.45	0.00	1.09	0.41	0.41
469	291	339	-292.02	0.68	0.00	0.83	0.20	0.20
473	338	339	329.65	0.08	0.00	0.94	0.25	0.25

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1093.82	159.44	207.96	48.5	70.16	13.	0.0	0.0	**	**	192.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1165.98	990.00	175.98	76.26
66	Keene 4 way	0.44(0.10)	1172.40	905.00	267.40	115.87
79	James Lane E	0.34(0.10)	1176.06	915.00	261.06	113.13
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1176.06	850.00	326.06	141.29
182	End of Parke	0.26(0.10)	1176.06	915.00	261.06	113.13
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	141.29	200	52.03
178	128.87	O-RV-R2	52.03
I-RV-R1	128.87	287	56.36
53	126.56	217	56.36
60	125.69	15	58.04
171	122.38	96	58.18
170	122.37	18	58.53
179	122.24	295	59.40
181	121.79	93	59.82

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	28.24	199	0.00
3	6.22	391	0.00
296	5.79	441	0.00
9	4.21	201	0.00
11	3.37	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.00	199	0.00
9	4.21	391	0.00
38	4.21	441	0.00
11	3.37	201	0.00
418	2.61	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	109.59	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.12	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	128.87	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	85.49	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1093.82	KAWC Tank
TANK-A	-120.87	Old Tank
TANK-B	-519.97	New Tank - P
TANK-C	-401.53	Chinkapin Ta

NET SYSTEM INFLOW = 1094.01
 NET SYSTEM OUTFLOW = -1042.37
 NET SYSTEM DEMAND = 51.64

T A N K S T A T U S R E P O R T (time = 0.0001 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	120.87	1165.00	12.00	40612.	74.1	FILLING	12.54
TANK-B (1)	519.97	1165.00	30.00	440668.	83.3	FILLING	30.53
TANK-C (1)	401.53	1165.00	32.00	676867.	84.2	FILLING	32.28

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 0.250
 Time: 0.500
 Time: 0.750
 Time: 1.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 1.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
 Time: 1.000

TIME FROM INITIATION OF EPS = 1.0000 HOURS (1.00AM, DAY: 1)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00014

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-230.70	1.46	0.16	1.47	1.03	0.93

3			1024.98	1.09	1.85	2.91	5.48	2.04
120	124	167	25.15	1.81	0.00	0.64	0.58	0.58
123	192	207	-235.89	1.95	0.05	1.51	0.99	0.97
169	5	1	700.77	4.23	0.29	1.99	1.08	1.01
281	96	167	34.01	2.34	0.00	0.87	0.78	0.78
284	167	34	-17.49	0.95	0.00	0.45	0.30	0.30
320	89	192	-231.77	2.56	0.05	1.48	1.24	1.22
328	239	107	-794.29	3.54	0.00	2.25	1.27	1.27
338	89	I-AV-2	456.43	0.01	0.00	1.29	0.46	0.46
341	291	167	-76.62	0.03	0.00	0.22	0.02	0.02
348	253	89	224.67	0.32	0.00	0.92	0.30	0.30
469	291	339	-318.57	0.80	0.00	0.90	0.23	0.23
473	338	339	359.61	0.10	0.00	1.02	0.29	0.29

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1024.98	149.51	205.87	56.4	73.84	15.	0.2	0.7	**	**	182.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1167.31	990.00	177.31	76.83
66	Keene 4 way	0.44(0.10)	1173.26	905.00	268.26	116.24
79	James Lane E	0.34(0.10)	1176.50	915.00	261.50	113.32
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1176.50	850.00	326.50	141.48
182	End of Parke	0.26(0.10)	1176.50	915.00	261.50	113.32
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	141.48	200	52.03
178	129.24	O-RV-R2	52.03
I-RV-R1	129.24	287	56.36
53	126.56	217	56.36
60	125.69	18	58.53
171	122.75	15	58.64
170	122.75	96	58.80
179	122.58	295	59.40
181	121.98	93	59.82

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
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38	24.81	199	0.00
3	5.48	391	0.00
296	5.30	441	0.00
9	3.73	201	0.00
11	2.98	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	4.59	199	0.00
38	3.73	391	0.00
9	3.73	441	0.00
11	2.98	201	0.00
20	2.49	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	109.94	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.75	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	129.24	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	86.11	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1024.98	KAWC Tank
TANK-A	-81.56	Old Tank
TANK-B	-456.43	New Tank - P
TANK-C	-435.54	Chinkapin Ta

NET SYSTEM INFLOW = 1025.18
 NET SYSTEM OUTFLOW = -973.54
 NET SYSTEM DEMAND = 51.64

T A N K S T A T U S R E P O R T (time = 1.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	81.56	1166.89	13.89	47001.	85.7	FILLING	14.25
TANK-B(1)	456.43	1167.07	32.07	471094.	89.1	FILLING	32.54
TANK-C(1)	435.54	1166.21	33.21	702366.	87.4	FILLING	33.51

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 1.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 1.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 1.250
 Time: 1.500
 Time: 1.750
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (closed) (time = 1.7500 hours)
 Time: 1.750
 Time: 2.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 2.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1158.000
 Time: 2.000

TIME FROM INITIATION OF EPS = 2.0000 HOURS (2.00AM, DAY: 1)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00008

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-251.60	1.71	0.19	1.61	1.21	1.09
3	208	107	1118.41	1.28	2.20	3.17	6.50	2.39
120	124	167	29.50	2.43	0.00	0.75	0.78	0.78
123	192	207	-258.89	2.31	0.06	1.65	1.18	1.15
169	5	1	765.95	4.99	0.34	2.17	1.27	1.19
281	96	167	39.85	3.13	0.00	1.02	1.05	1.05
284	167	34	-20.53	1.28	0.01	0.52	0.40	0.40
320	89	192	-254.59	3.04	0.06	1.62	1.48	1.45
328	239	107	-866.82	4.16	0.00	2.46	1.49	1.49
338	89	I-AV-2	504.17	0.02	0.00	1.43	0.55	0.55
341	291	167	-89.85	0.04	0.00	0.25	0.02	0.02
348	253	89	249.58	0.39	0.00	1.02	0.36	0.36
469	291	339	-419.63	1.33	0.00	1.19	0.39	0.39
473	338	339	473.63	0.16	0.00	1.34	0.49	0.49

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
 98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1118.41	167.42	212.96	45.5	68.68	13.	0.2	1.6	**	**	200.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1169.03	990.00	179.03	77.58
66	Keene 4 way	0.44(0.10)	1176.33	905.00	271.33	117.57
79	James Lane E	0.34(0.10)	1180.15	915.00	265.15	114.90
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1180.15	850.00	330.15	143.07
182	End of Parke	0.26(0.10)	1180.15	915.00	265.15	114.90
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	143.07	200	52.03
178	130.58	O-RV-R2	52.03
I-RV-R1	130.58	287	56.36
53	126.56	217	56.36
60	125.69	18	58.53
171	124.08	295	59.40
170	124.08	15	59.54
179	123.96	96	59.75
181	123.57	93	59.82

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	29.52	199	0.00
3	6.50	391	0.00
296	6.21	441	0.00
9	4.39	201	0.00
470	3.84	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.36	199	0.00
9	4.39	391	0.00
38	4.39	441	0.00
11	3.51	201	0.00
20	2.74	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	111.30	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	121.70	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	130.58	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	87.07	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

- (+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
- (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1118.41	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	-504.17	New Tank - P
TANK-C	-562.80	Chinkapin Ta

NET SYSTEM INFLOW = 1118.61
NET SYSTEM OUTFLOW = -1066.97
NET SYSTEM DEMAND = 51.64

Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE ELEMENT	STATUS	REFERENCE NODE	REFERENCE GRADE (ft)	NEXT SWITCH GRADE (ft)
AV-2	CLOSED	89	1170.21	1170.00

Time: 2.000

TIME FROM INITIATION OF EPS = 2.0000 HOURS (2.00AM, DAY: 1)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00010

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-239.41	1.56	0.17	1.53	1.10	0.99
3	208	107	1063.52	1.17	1.99	3.02	5.89	2.18
120	124	167	61.99	9.60	0.00	1.58	3.10	3.10
123	192	207	-203.58	1.48	0.04	1.30	0.75	0.74
169	5	1	740.71	4.69	0.32	2.10	1.19	1.12
281	96	167	82.40	12.03	0.00	2.10	4.03	4.03
284	167	34	-43.26	5.09	0.03	1.10	1.60	1.59
320	89	192	-173.08	1.49	0.03	1.10	0.72	0.71
328	239	107	-824.11	3.79	0.00	2.34	1.36	1.36
338	89	I-AV-2	0.00	0.00	0.00	0.00	0.00	0.00
341	291	167	-187.61	0.15	0.02	0.53	0.10	0.09
348	253	89	-173.08	0.20	0.00	0.71	0.18	0.18
469	291	339	-731.16	3.73	0.00	2.07	1.09	1.09
473	338	339	825.14	0.46	0.00	2.34	1.36	1.36

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1063.52	167.47	219.54	52.1	71.87	14.	0.2	1.8	**	**	200.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1173.41	990.00	183.41	79.48
66	Keene 4 way	0.44(0.10)	1185.92	905.00	280.92	121.73
79	James Lane E	0.34(0.10)	1189.22	915.00	274.22	118.83
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1189.22	850.00	339.22	147.00
182	End of Parke	0.26(0.10)	1189.22	915.00	274.22	118.83
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	147.00	200	52.03
178	134.73	O-RV-R2	52.03
I-RV-R1	134.73	287	56.36
171	128.24	217	56.36
170	128.24	18	58.53
179	128.07	295	59.40
181	127.50	93	59.82
53	126.56	91	60.69
109	126.07	286	60.69

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	26.68	199	0.00
20	12.95	391	0.00
470	12.23	441	0.00
296	10.81	201	0.00
3	5.89	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	12.95	199	0.00
296	9.27	391	0.00
467	4.56	441	0.00
281	4.03	201	0.00
9	3.99	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	115.43	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	125.89	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	134.73	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	91.27	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1063.52	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	0.00	New Tank - P
TANK-C	-1012.07	Chinkapin Ta

NET SYSTEM INFLOW = 1063.72
NET SYSTEM OUTFLOW = -1012.07
NET SYSTEM DEMAND = 51.64

TANK STATUS REPORT (time = 2.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	0.00	1168.91	33.91	498072.	94.2		33.91
TANK-C(1)	1012.07	1167.51	34.51	729968.	90.8	FILLING	35.23

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 2.250

CHANGES FOR NEXT SIMULATION (time = 2.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 2.250
Time: 2.500
Time: 2.750
Switch Activated

PRESSURE SWITCHES ACTIVATED

REFERENCE PIPE Pump-1 HAS CHANGED STATUS (closed) (time = 2.7500 hours)
Time: 2.750
Switch Activated

PRESSURE SWITCHES ACTIVATED

REFERENCE PIPE AV-2 HAS CHANGED STATUS (opened) (time = 2.7500 hours)
Time: 2.750
Time: 3.000

CHANGES FOR NEXT SIMULATION (time = 3.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
Time: 3.000

TIME FROM INITIATION OF EPS = 3.0000 HOURS (3.00AM, DAY: 1)

RESULTS OBTAINED AFTER 15 TRIALS: ACCURACY = 0.00001

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-4.17	0.00	0.00	0.03	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-10.75	0.37	0.00	0.27	0.12	0.12
123	192	207	13.71	0.01	0.00	0.09	0.01	0.00
169	5	1	-54.23	0.04	0.00	0.15	0.01	0.01
281	96	167	-13.15	0.40	0.00	0.34	0.13	0.13
284	167	34	7.81	0.21	0.00	0.20	0.07	0.07
320	89	192	3.93	0.00	0.00	0.03	0.00	0.00
328	239	107	4.17	0.00	0.00	0.01	0.00	0.00
338	89	I-AV-2	30.21	0.00	0.00	0.09	0.00	0.00
341	291	167	31.79	0.01	0.00	0.09	0.00	0.00
348	253	89	34.14	0.01	0.00	0.14	0.01	0.01
469	291	339	111.43	0.11	0.00	0.32	0.03	0.03
473	338	339	-125.33	0.01	0.00	0.36	0.04	0.04

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.06(0.25)	1169.30	990.00	179.30	77.70
66	Keene 4 way	1.09(0.25)	1168.92	905.00	263.92	114.36
79	James Lane E	0.86(0.25)	1168.78	915.00	253.78	109.97
131	Drakes Ln EO	0.20(0.25)	1089.95	935.00	154.95	67.14
157	KY1267 EOL	0.34(0.25)	1089.95	840.00	249.95	108.31
173	Stirling Est	0.77(0.25)	1168.79	850.00	318.79	138.14
182	End of Parke	0.65(0.25)	1168.79	915.00	253.79	109.98
217	Bark Woods	0.65(0.25)	1090.04	960.00	130.04	56.35
233	Hagin EOL	0.30(0.25)	1089.94	940.00	149.94	64.97

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.47	137	52.01
173	138.14	200	52.01
178	127.34	O-RV-R2	52.01
I-RV-R1	127.34	287	56.34
53	126.51	217	56.35
60	125.64	18	58.50

318	121.31	96	58.98
133	121.31	295	59.38
323	121.31	15	59.53
171	120.85	93	59.78

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
20	0.45	199	0.00
470	0.32	441	0.00
303	0.31	391	0.00
296	0.27	424	0.00
281	0.13	187	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	0.45	199	0.00
296	0.24	441	0.00
303	0.18	391	0.00
281	0.13	424	0.00
120	0.12	187	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	107.86	73.68	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.78	86.70	25.74
RV-R1	PRV-1	93.20	ACTIVATED	127.34	93.20	13.24
RV-R2	PRV-1	52.00	CLOSED	86.24	52.01	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.49	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	-30.21	New Tank - P
TANK-C	158.83	Chinkapin Ta

NET SYSTEM INFLOW = 159.32
 NET SYSTEM OUTFLOW = -30.21
 NET SYSTEM DEMAND = 129.11

T A N K S T A T U S R E P O R T (time = 3.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	30.21	1169.02	34.02	499753.	94.5	FILLING	34.05
TANK-C(1)	-158.83	1169.54	36.54	772888.	96.2	DRAINING	36.43

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 3.250

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 3.250
 Time: 3.500
 Time: 3.750
 Time: 4.000

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1142.000
 Time: 4.000

TIME FROM INITIATION OF EPS = 4.0000 HOURS (4.00AM, DAY: 1)

RESULTS OBTAINED AFTER 12 TRIALS: ACCURACY = 0.00004

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1 0 0 0 (ft/ft)	H L / 1 0 0 0 (ft/ft)
	#1	#2						
2	13	107	-8.62	0.00	0.00	0.06	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-9.72	0.31	0.00	0.25	0.10	0.10
123	192	207	51.07	0.11	0.00	0.33	0.06	0.06
169	5	1	-98.15	0.11	0.01	0.28	0.03	0.03
281	96	167	-10.70	0.27	0.00	0.27	0.09	0.09
284	167	34	7.35	0.19	0.00	0.19	0.06	0.06
320	89	192	48.36	0.14	0.00	0.31	0.07	0.07
328	239	107	8.62	0.00	0.00	0.02	0.00	0.00
338	89	I-AV-2	-117.64	0.00	0.00	0.33	0.04	0.04
341	291	167	27.93	0.00	0.00	0.08	0.00	0.00
348	253	89	-69.28	0.04	0.00	0.28	0.03	0.03
469	291	339	96.67	0.09	0.00	0.27	0.03	0.03
473	338	339	-108.25	0.01	0.00	0.31	0.03	0.03

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12 (0.50)	1168.96	990.00	178.96	77.55
66	Keene 4 way	2.18 (0.50)	1168.30	905.00	263.30	114.10
79	James Lane E	1.72 (0.50)	1167.79	915.00	252.79	109.54
131	Drakes Ln EO	0.41 (0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68 (0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54 (0.50)	1167.81	850.00	317.81	137.72
182	End of Parke	1.30 (0.50)	1167.82	915.00	252.82	109.55
217	Bark Woods	1.30 (0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59 (0.50)	1089.67	940.00	149.67	64.86

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	137.72	200	52.00
178	127.01	O-RV-R2	52.00
I-RV-R1	127.01	287	56.31
53	126.39	217	56.34
60	125.53	18	58.48
133	121.20	96	58.88
318	121.20	295	59.37
323	121.19	15	59.39
171	120.55	93	59.67

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.00	187	0.00
20	0.27	227	0.00
296	0.26	198	0.00
470	0.25	199	0.00
263	0.19	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	0.55	187	0.00
20	0.27	227	0.00
296	0.23	198	0.00
263	0.18	199	0.00
242	0.14	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	107.60	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.51	86.70	33.62
RV-R1	PRV-1	93.20	ACTIVATED	127.01	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	86.05	52.00	19.97

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	117.64	New Tank - P
TANK-C	139.59	Chinkapin Ta

NET SYSTEM INFLOW = 258.21
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 258.22

TANK STATUS REPORT (time = 4.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	-117.64	1169.03	34.03	499829.	94.5	DRAINING	33.91
TANK-C(1)	-139.59	1169.17	36.17	765096.	95.2	DRAINING	36.07

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 4.250

CHANGES FOR NEXT SIMULATION (time = 4.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 4.250
Time: 4.500
Time: 4.750
Time: 5.000

CHANGES FOR NEXT SIMULATION (time = 5.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1133.000
Time: 5.000

TIME FROM INITIATION OF EPS = 5.0000 HOURS (5.00AM, DAY: 1)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00029

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-21.56	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-22.47	1.47	0.00	0.57	0.47	0.47
123	192	207	131.99	0.66	0.02	0.84	0.34	0.33
169	5	1	-245.19	0.61	0.04	0.70	0.15	0.14

281	96	167	-24.10	1.23	0.00	0.62	0.41	0.41
284	167	34	17.08	0.91	0.00	0.44	0.29	0.28
320	89	192	127.94	0.85	0.02	0.82	0.41	0.41
328	239	107	21.56	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-323.79	0.01	0.00	0.92	0.24	0.24
341	291	167	64.07	0.02	0.00	0.18	0.01	0.01
348	253	89	-195.85	0.25	0.00	0.80	0.23	0.23
469	291	339	220.49	0.40	0.00	0.63	0.12	0.12
473	338	339	-246.70	0.05	0.00	0.70	0.15	0.15

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1167.77	990.00	177.77	77.03
66	Keene 4 way	5.44(1.25)	1164.32	905.00	259.32	112.37
79	James Lane E	4.30(1.25)	1161.49	915.00	246.49	106.81
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1161.55	850.00	311.55	135.01
182	End of Parke	3.25(1.25)	1161.62	915.00	246.62	106.87
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	135.01	200	51.99
53	125.75	O-RV-R2	52.00
178	125.08	287	56.17
I-RV-R1	125.08	217	56.30
60	124.90	96	58.26
133	120.60	18	58.35
318	120.59	238	58.64
323	120.54	15	59.01
I-RV-2	118.99	93	59.06

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00
304	1.50	248	0.00
296	1.29	227	0.00
470	1.25	103	0.00

20 1.20 391 0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	1.69	187	0.00
20	1.20	248	0.00
296	1.13	227	0.00
263	1.01	103	0.00
242	0.78	391	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.75	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	118.99	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	125.08	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	84.85	52.00	76.16

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	323.79	New Tank - P
TANK-C	319.30	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 5.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.95	14.95	50598.	92.3		14.95
TANK-B(1)	-323.79	1168.56	33.56	492976.	93.2	DRAINING	33.23
TANK-C(1)	-319.30	1168.77	35.77	756515.	94.1	DRAINING	35.54

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 5.250

CHANGES FOR NEXT SIMULATION (time = 5.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 5.250
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (opened) (time = 5.2500 hours)
 Time: 5.250
 Time: 5.500
 Time: 5.750
 Time: 6.000

CHANGES FOR NEXT SIMULATION (time = 6.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1126.000
 Time: 6.000

TIME FROM INITIATION OF EPS = 6.0000 HOURS (6.00AM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-34.47	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-35.64	3.45	0.00	0.91	1.11	1.11
123	192	207	207.88	1.54	0.04	1.33	0.78	0.76
169	5	1	-393.31	1.45	0.09	1.12	0.37	0.35
281	96	167	-37.95	2.86	0.00	0.97	0.96	0.96
284	167	34	27.10	2.14	0.01	0.69	0.67	0.67
320	89	192	198.95	1.93	0.04	1.27	0.94	0.92
328	239	107	34.47	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-493.24	0.02	0.00	1.40	0.53	0.53
341	291	167	101.37	0.05	0.01	0.29	0.03	0.03
348	253	89	-294.29	0.53	0.00	1.20	0.49	0.49
469	291	339	288.86	0.67	0.00	0.82	0.20	0.20
473	338	339	-322.56	0.08	0.00	0.91	0.24	0.24

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
 98 133 212 336 337
 474

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)

36	Catnip Hill	0.47(2.00)	1165.57	990.00	175.57	76.08

66	Keene 4 way	8.70 (2.00)	1157.38	905.00	252.38	109.37
79	James Lane E	6.88 (2.00)	1150.57	915.00	235.57	102.08
131	Drakes Ln EO	1.62 (2.00)	1085.90	935.00	150.90	65.39
157	KYL267 EOL	2.70 (2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15 (2.00)	1150.73	850.00	300.73	130.32
182	End of Parke	5.20 (2.00)	1150.88	915.00	235.88	102.21
217	Bark Woods	5.20 (2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37 (2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	130.32	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	287	55.92
178	121.75	238	56.23
I-RV-R1	121.75	217	56.23
133	119.59	96	57.14
318	119.55	93	58.02
323	119.44	18	58.13
276	116.78	15	58.47

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00
304	4.11	248	0.00
20	3.39	213	0.00
296	3.33	391	0.00
263	2.45	227	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	3.49	187	0.00
20	3.39	248	0.00
296	2.89	213	0.00
263	2.40	391	0.00
242	1.86	227	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.49	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	116.31	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	121.75	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	82.74	52.00	128.08

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

- (+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
- (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	98.12	Old Tank

TANK-B 493.24 New Tank - P
TANK-C 437.58 Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 6.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-98.12	1167.55	14.55	49236.	89.8	DRAINING	14.11
TANK-B(1)	-493.24	1167.29	32.29	474315.	89.7	DRAINING	31.79
TANK-C(1)	-437.58	1167.89	34.89	737951.	91.8	DRAINING	34.58

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 6.250

CHANGES FOR NEXT SIMULATION (time = 6.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 6.250
Time: 6.500
Time: 6.750
Time: 7.000

CHANGES FOR NEXT SIMULATION (time = 7.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1137.000
Time: 7.000

TIME FROM INITIATION OF EPS = 7.0000 HOURS (7.00AM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00021

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-30.14	0.03	0.00	0.19	0.02	0.02
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-33.33	3.04	0.00	0.85	0.98	0.98
123	192	207	177.85	1.15	0.03	1.14	0.59	0.57
169	5	1	-344.88	1.14	0.07	0.98	0.29	0.27
281	96	167	-36.49	2.66	0.00	0.93	0.89	0.89
284	167	34	25.22	1.87	0.01	0.64	0.59	0.59
320	89	192	167.34	1.40	0.03	1.07	0.68	0.67
328	239	107	30.14	0.01	0.00	0.09	0.00	0.00
338	89	I-AV-2	-400.69	0.01	0.00	1.14	0.36	0.36
341	291	167	95.64	0.04	0.00	0.27	0.03	0.03
348	253	89	-233.35	0.35	0.00	0.95	0.32	0.32

469	291	339	290.31	0.67	0.00	0.82	0.20	0.20
473	338	339	-324.64	0.08	0.00	0.92	0.24	0.24

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\\$)	TOTAL COST (\\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.41 (1.75)	1164.56	990.00	174.56	75.64
66	Keene 4 way	7.62 (1.75)	1157.91	905.00	252.91	109.59
79	James Lane E	6.02 (1.75)	1152.60	915.00	237.60	102.96
131	Drakes Ln EO	1.42 (1.75)	1086.80	935.00	151.80	65.78
157	KY1267 EOL	2.37 (1.75)	1086.74	840.00	246.74	106.92
173	Stirling Est	5.38 (1.75)	1152.72	850.00	302.72	131.18
182	End of Parke	4.55 (1.75)	1152.84	915.00	237.84	103.06
217	Bark Woods	4.55 (1.75)	1089.83	960.00	129.83	56.26
233	Hagin EOL	2.07 (1.75)	1086.58	940.00	146.58	63.52

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.02	137	51.99
173	131.18	200	51.99
53	125.06	O-RV-R2	52.00
60	124.23	287	56.01
178	122.10	238	56.24
I-RV-R1	122.10	217	56.26
133	119.97	96	56.67
318	119.94	15	57.91
323	119.86	18	58.21
276	116.82	93	58.41

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	5.43	187	0.00
304	3.11	248	0.00
20	3.07	213	0.00
296	2.83	227	0.00
470	2.28	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
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20	3.07	187	0.00
303	2.81	248	0.00
296	2.46	213	0.00
263	1.88	227	0.00
242	1.46	391	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.81	73.60	28.02
RV-2	PRV-1	86.70	ACTIVATED	116.43	86.70	75.11
RV-R1	PRV-1	93.20	ACTIVATED	122.10	93.20	58.77
RV-R2	PRV-1	52.00	ACTIVATED	82.64	52.00	110.95

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.43	
R-1	0.00	KAWC Tank
TANK-A	67.41	Old Tank
TANK-B	400.69	New Tank - P
TANK-C	432.22	Chinkapin Ta

NET SYSTEM INFLOW = 903.75
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 903.75

TANK STATUS REPORT (time = 7.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-67.41	1165.93	12.93	43743.	79.8	DRAINING	12.63
TANK-B (1)	-400.69	1165.31	30.31	445276.	84.2	DRAINING	29.90
TANK-C (1)	-432.22	1166.60	33.60	710747.	88.4	DRAINING	33.30

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 7.250

CHANGES FOR NEXT SIMULATION (time = 7.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 7.250
 Time: 7.500
 Time: 7.750
 Time: 8.000

CHANGES FOR NEXT SIMULATION (time = 8.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 8.000

TIME FROM INITIATION OF EPS = 8.0000 HOURS (8.00AM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00034

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-18.91	0.01	0.00	0.12	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-25.41	1.84	0.00	0.65	0.59	0.59
123	192	207	103.91	0.43	0.01	0.66	0.22	0.21
169	5	1	-218.01	0.49	0.03	0.62	0.12	0.12
281	96	167	-29.44	1.79	0.00	0.75	0.60	0.60
284	167	34	18.99	1.11	0.01	0.48	0.35	0.35
320	89	192	92.56	0.47	0.01	0.59	0.23	0.22
328	239	107	18.91	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-185.51	0.00	0.00	0.53	0.09	0.09
341	291	167	74.21	0.03	0.00	0.21	0.02	0.02
348	253	89	-92.96	0.06	0.00	0.38	0.06	0.06
469	291	339	245.42	0.49	0.00	0.70	0.14	0.14
473	338	339	-275.10	0.06	0.00	0.78	0.18	0.18

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.26(1.10)	1164.14	990.00	174.14	75.46
66	Keene 4 way	4.79(1.10)	1160.96	905.00	255.96	110.91
79	James Lane E	3.78(1.10)	1158.73	915.00	243.73	105.61
131	Drakes Ln EO	0.89(1.10)	1088.65	935.00	153.65	66.58
157	KY1267 EOL	1.49(1.10)	1088.62	840.00	248.62	107.74
173	Stirling Est	3.38(1.10)	1158.78	850.00	308.78	133.80
182	End of Parke	2.86(1.10)	1158.83	915.00	243.83	105.66
217	Bark Woods	2.86(1.10)	1089.95	960.00	129.95	56.31
233	Hagin EOL	1.30(1.10)	1088.56	940.00	148.56	64.38

MAXIMUM AND MINIMUM VALUES

PRESURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.88	137	51.99
173	133.80	200	52.00
53	125.91	O-RV-R2	52.00
60	125.06	287	56.20
178	123.67	217	56.31
I-RV-R1	123.67	96	56.54
133	120.76	238	57.10
318	120.74	15	57.48
323	120.71	18	58.38
I-RV-2	117.49	192	58.52

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.68	187	0.00
20	2.01	227	0.00
470	1.56	248	0.00
296	1.55	391	0.00
304	1.12	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.01	187	0.00
303	1.42	227	0.00
296	1.36	248	0.00
263	0.79	391	0.00
467	0.66	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.34	73.60	13.54
RV-2	PRV-1	86.70	ACTIVATED	117.49	86.70	51.75
RV-R1	PRV-1	93.20	ACTIVATED	123.67	93.20	40.71
RV-R2	PRV-1	52.00	ACTIVATED	83.27	52.00	65.51

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.16	
R-1	0.00	KAWC Tank
TANK-A	23.58	Old Tank
TANK-B	185.51	New Tank - P
TANK-C	356.82	Chinkapin Ta

NET SYSTEM INFLOW = 568.07
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 568.07

TANK STATUS REPORT (time = 8.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)

TANK-A(1)	-23.58	1164.69	11.69	39547.	72.1	DRAINING	11.58
TANK-B(1)	-185.51	1163.70	28.70	421641.	79.7	DRAINING	28.52
TANK-C(1)	-356.82	1165.36	32.36	684558.	85.2	DRAINING	32.11

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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Time: 8.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 8.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 8.250
Time: 8.500
Time: 8.750
Time: 9.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 9.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1163.000
Time: 9.000

TIME FROM INITIATION OF EPS = 9.0000 HOURS (9.00AM, DAY: 1)

RESULTS OBTAINED AFTER 13 TRIALS: ACCURACY = 0.00002

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-31.21	0.04	0.00	0.20	0.02	0.02
3	208	107	100.40	0.01	0.02	0.28	0.06	0.03
120	124	167	-20.41	1.23	0.00	0.52	0.40	0.40
123	192	207	36.13	0.06	0.00	0.23	0.03	0.03
169	5	1	-81.44	0.08	0.00	0.23	0.02	0.02
281	96	167	-23.75	1.20	0.00	0.61	0.40	0.40
284	167	34	15.11	0.73	0.00	0.39	0.23	0.23
320	89	192	21.51	0.03	0.00	0.14	0.02	0.01
328	239	107	-69.19	0.04	0.00	0.20	0.01	0.01
338	89	I-AV-2	9.52	0.00	0.00	0.03	0.00	0.00
341	291	167	59.52	0.02	0.00	0.17	0.01	0.01
348	253	89	31.02	0.01	0.00	0.13	0.01	0.01
469	291	339	188.79	0.30	0.00	0.54	0.09	0.09
473	338	339	-211.79	0.04	0.00	0.60	0.11	0.11

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 212 336 337 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1163.61	990.00	173.61	75.23
66	Keene 4 way	3.26(0.75)	1162.11	905.00	257.11	111.42
79	James Lane E	2.58(0.75)	1161.17	915.00	246.17	106.67
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1161.20	850.00	311.20	134.85
182	End of Parke	1.95(0.75)	1161.22	915.00	246.22	106.70
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	134.85	200	52.00
53	126.23	O-RV-R2	52.00
60	125.37	287	56.27
178	124.26	217	56.33
I-RV-R1	124.26	96	56.39
133	121.05	15	57.18
318	121.04	238	57.59
323	121.03	18	58.45
171	117.83	192	58.46

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	429	0.00
20	1.41	227	0.00
470	0.94	391	0.00
296	0.81	225	0.00
304	0.43	201	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.41	429	0.00
303	0.94	227	0.00
296	0.71	391	0.00
281	0.40	225	0.00
120	0.40	201	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.91	73.60	3.83

RV-2	PRV-1	86.70	ACTIVATED	117.78	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	124.26	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	83.40	52.00	40.02

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	100.40	KAWC Tank
TANK-A	18.54	Old Tank
TANK-B	-9.52	New Tank - P
TANK-C	276.43	Chinkapin Ta

NET SYSTEM INFLOW = 396.84
 NET SYSTEM OUTFLOW = -9.52
 NET SYSTEM DEMAND = 387.32

T A N K S T A T U S R E P O R T (time = 9.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-18.54	1163.98	10.98	37168.	67.8	DRAINING	10.90
TANK-B (1)	9.52	1162.94	27.94	410418.	77.6	FILLING	27.95
TANK-C (1)	-276.43	1164.40	31.40	664206.	82.6	DRAINING	31.21

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 9.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 9.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 9.250
 Time: 9.500
 Time: 9.750
 Time: 10.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 10.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1161.000
 Time: 10.000

TIME FROM INITIATION OF EPS = 10.0000 HOURS (10.00AM, DAY: 1)

RESULTS OBTAINED AFTER 14 TRIALS: ACCURACY = 0.00002

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1 0 0 0 (ft/ft)	H L / 1 0 0 0 (ft/ft)
	#1	#2						
2	13	107	-12.90	0.01	0.00	0.08	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-17.19	0.89	0.00	0.44	0.29	0.29
123	192	207	70.07	0.21	0.00	0.45	0.10	0.10
169	5	1	-148.50	0.24	0.01	0.42	0.06	0.06
281	96	167	-19.84	0.86	0.00	0.51	0.29	0.29
284	167	34	12.85	0.54	0.00	0.33	0.17	0.17
320	89	192	62.04	0.22	0.00	0.40	0.11	0.11
328	239	107	12.90	0.00	0.00	0.04	0.00	0.00
338	89	I-AV-2	-121.75	0.00	0.00	0.35	0.04	0.04
341	291	167	50.13	0.01	0.00	0.14	0.01	0.01
348	253	89	-59.71	0.03	0.00	0.24	0.03	0.03
469	291	339	151.35	0.20	0.00	0.43	0.06	0.06
473	338	339	-169.53	0.02	0.00	0.48	0.07	0.07

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1163.12	990.00	173.12	75.02
66	Keene 4 way	3.26(0.75)	1161.57	905.00	256.57	111.18
79	James Lane E	2.58(0.75)	1160.49	915.00	245.49	106.38
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1160.51	850.00	310.51	134.56
182	End of Parke	1.95(0.75)	1160.54	915.00	245.54	106.40
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	134.56	200	52.00
53	126.23	O-RV-R2	52.00
60	125.37	96	56.25
178	124.02	287	56.27
I-RV-R1	124.02	217	56.33
133	121.05	15	56.95
318	121.04	238	57.19
323	121.03	192	58.33
I-RV-2	117.65	16	58.41

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	187	0.00
20	1.05	227	0.00
296	0.78	391	0.00
470	0.63	225	0.00
304	0.43	103	0.00

HL / 1000

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.05	187	0.00
303	0.94	227	0.00
296	0.69	391	0.00
263	0.39	225	0.00
467	0.33	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.67	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	117.65	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	124.02	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	83.27	52.00	40.02

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	0.00	KAWC Tank
TANK-A	39.32	Old Tank
TANK-B	121.75	New Tank - P
TANK-C	224.79	Chinkapin Ta

NET SYSTEM INFLOW = 387.32
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 10.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-39.32	1163.52	10.52	35613.	65.0	DRAINING	10.35
TANK-B (1)	-121.75	1162.90	27.90	409842.	77.5	DRAINING	27.78
TANK-C (1)	-224.79	1163.71	30.71	649589.	80.8	DRAINING	30.55

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 10.250

CHANGES FOR NEXT SIMULATION (time = 10.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 10.250
 Time: 10.500
 Time: 10.750
 Time: 11.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 11.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1158.000
 Time: 11.000

TIME FROM INITIATION OF EPS = 11.0000 HOURS (11.00AM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00024

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-25.84	0.03	0.00	0.16	0.02	0.02
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-27.62	2.15	0.00	0.71	0.69	0.69
123	192	207	153.67	0.88	0.02	0.98	0.45	0.44
169	5	1	-295.34	0.85	0.05	0.84	0.22	0.20
281	96	167	-29.80	1.83	0.00	0.76	0.61	0.61
284	167	34	20.95	1.33	0.01	0.53	0.42	0.42
320	89	192	145.50	1.08	0.02	0.93	0.52	0.51
328	239	107	25.84	0.01	0.00	0.07	0.00	0.00
338	89	I-AV-2	-353.47	0.01	0.00	1.00	0.28	0.28
341	291	167	78.87	0.03	0.00	0.22	0.02	0.02
348	253	89	-207.97	0.28	0.00	0.85	0.26	0.26
469	291	339	224.22	0.42	0.00	0.64	0.12	0.12
473	338	339	-250.47	0.05	0.00	0.71	0.15	0.15

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
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36	Catnip Hill	0.35 (1.50)	1161.64	990.00	171.64	74.38
66	Keene 4 way	6.53 (1.50)	1156.74	905.00	251.74	109.09
79	James Lane E	5.16 (1.50)	1152.76	915.00	237.76	103.03
131	Drakes Ln EO	1.22 (1.50)	1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03 (1.50)	1087.55	840.00	247.55	107.27
173	Stirling Est	4.61 (1.50)	1152.85	850.00	302.85	131.24
182	End of Parke	3.90 (1.50)	1152.94	915.00	237.94	103.11
217	Bark Woods	3.90 (1.50)	1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77 (1.50)	1087.44	940.00	147.44	63.89

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	131.24	200	51.99
53	125.43	O-RV-R2	52.00
60	124.59	96	55.53
178	121.70	238	55.53
I-RV-R1	121.70	287	56.10
133	120.31	217	56.28
318	120.29	15	56.54
323	120.23	192	57.48
276	116.86	16	57.70

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	4.23	187	0.00
304	2.24	248	0.00
20	2.20	231	0.00
296	2.06	227	0.00
263	1.44	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	2.21	187	0.00
20	2.20	248	0.00
296	1.80	231	0.00
263	1.41	227	0.00
242	1.09	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.40	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	115.80	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	121.70	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	81.83	52.00	93.67

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	

R-1	0.00	KAWC Tank
TANK-A	78.65	Old Tank
TANK-B	353.47	New Tank - P
TANK-C	339.58	Chinkapin Ta

NET SYSTEM INFLOW = 774.65
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 774.65

TANK STATUS REPORT (time = 11.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-78.65	1162.88	9.88	33438.	61.0	DRAINING	9.53
TANK-B (1)	-353.47	1162.38	27.38	402236.	76.1	DRAINING	27.02
TANK-C (1)	-339.58	1163.08	30.08	636219.	79.2	DRAINING	29.84

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 11.250

CHANGES FOR NEXT SIMULATION (time = 11.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 11.250
Time: 11.500
Time: 11.750
Time: 12.000

CHANGES FOR NEXT SIMULATION (time = 12.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1156.000
Time: 12.000

TIME FROM INITIATION OF EPS = 12.0000 HOURS (12.00AM, DAY: 1)

RESULTS OBTAINED AFTER 13 TRIALS: ACCURACY = 0.00034

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-18.93	0.01	0.00	0.12	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-23.00	1.53	0.00	0.59	0.49	0.49
123	192	207	107.78	0.46	0.01	0.69	0.23	0.23
169	5	1	-217.34	0.48	0.03	0.62	0.12	0.12
281	96	167	-26.00	1.42	0.00	0.66	0.48	0.48
284	167	34	17.30	0.93	0.00	0.44	0.29	0.29
320	89	192	98.66	0.53	0.01	0.63	0.25	0.25
328	239	107	18.93	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-219.08	0.00	0.00	0.62	0.12	0.12

341	291	167	66.67	0.02	0.00	0.19	0.01	0.01
348	253	89	-120.42	0.10	0.00	0.49	0.09	0.09
469	291	339	209.29	0.37	0.00	0.59	0.11	0.11
473	338	339	-234.32	0.04	0.00	0.66	0.13	0.13

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.26(1.10)	1161.07	990.00	171.07	74.13
66	Keene 4 way	4.79(1.10)	1158.09	905.00	253.09	109.67
79	James Lane E	3.78(1.10)	1155.86	915.00	240.86	104.37
131	Drakes Ln EO	0.89(1.10)	1088.65	935.00	153.65	66.58
157	KY1267 EOL	1.49(1.10)	1088.62	840.00	248.62	107.74
173	Stirling Est	3.38(1.10)	1155.91	850.00	305.91	132.56
182	End of Parke	2.86(1.10)	1155.96	915.00	240.96	104.42
217	Bark Woods	2.86(1.10)	1089.95	960.00	129.95	56.31
233	Hagin EOL	1.30(1.10)	1088.56	940.00	148.56	64.38

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.88	137	51.99
173	132.56	200	52.00
53	125.91	O-RV-R2	52.00
60	125.06	96	55.29
178	122.43	238	55.85
I-RV-R1	122.43	15	56.14
133	120.76	287	56.20
318	120.74	217	56.31
323	120.71	192	57.30
276	116.90	16	57.45

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.68	187	0.00
20	1.64	227	0.00
296	1.36	248	0.00
470	1.17	391	0.00
304	1.12	103	0.00

H L / 1 0 0 0

PIPE	MAXIMUM	PIPE	MINIMUM
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NUMBER	HL/1000 (ft/ft)	NUMBER	HL/1000 (ft/ft)
20	1.64	187	0.00
303	1.42	227	0.00
296	1.19	248	0.00
263	0.79	391	0.00
242	0.62	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	103.09	73.60	13.54
RV-2	PRV-1	86.70	ACTIVATED	116.24	86.70	51.75
RV-R1	PRV-1	93.20	ACTIVATED	122.43	93.20	40.71
RV-R2	PRV-1	52.00	ACTIVATED	82.03	52.00	65.51

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.16	
R-1	0.00	KAWC Tank
TANK-A	38.34	Old Tank
TANK-B	219.08	New Tank - P
TANK-C	308.50	Chinkapin Ta

NET SYSTEM INFLOW = 568.07
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 568.07

TANK STATUS REPORT (time = 12.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-38.34	1161.66	8.66	29306.	53.5	DRAINING	8.49
TANK-B(1)	-219.08	1161.01	26.01	382067.	72.3	DRAINING	25.79
TANK-C(1)	-308.50	1162.09	29.09	615350.	76.6	DRAINING	28.87

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 12.250

CHANGES FOR NEXT SIMULATION (time = 12.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 12.250
 Time: 12.500
 Time: 12.750
 Time: 13.000

CHANGES FOR NEXT SIMULATION (time = 13.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
Time: 13.000

TIME FROM INITIATION OF EPS = 13.0000 HOURS (1.00PM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00040

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-17.20	0.01	0.00	0.11	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-21.74	1.38	0.00	0.56	0.44	0.44
123	192	207	96.16	0.37	0.01	0.61	0.19	0.18
169	5	1	-197.85	0.41	0.02	0.56	0.10	0.10
281	96	167	-24.83	1.30	0.00	0.63	0.44	0.44
284	167	34	16.31	0.84	0.00	0.42	0.26	0.26
320	89	192	86.81	0.42	0.01	0.55	0.20	0.20
328	239	107	17.20	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-183.73	0.00	0.00	0.52	0.08	0.08
341	291	167	63.21	0.02	0.00	0.18	0.01	0.01
348	253	89	-96.92	0.07	0.00	0.40	0.06	0.06
469	291	339	195.50	0.32	0.00	0.55	0.09	0.09
473	338	339	-218.93	0.04	0.00	0.62	0.12	0.12

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.24	1160.31	990.00	170.31	73.80
66	Keene 4 way	4.35	1157.75	905.00	252.75	109.53
79	James Lane E	3.44	1155.89	915.00	240.89	104.38
131	Drakes Ln EO	0.81	1088.87	935.00	153.87	66.68
157	KY1267 EOL	1.35	1088.85	840.00	248.85	107.83
173	Stirling Est	3.07	1155.93	850.00	305.93	132.57
182	End of Parke	2.60	1155.97	915.00	240.97	104.42
217	Bark Woods	2.60	1089.97	960.00	129.97	56.32
233	Hagin EOL	1.18	1088.79	940.00	148.79	64.48

MAXIMUM AND MINIMUM VALUES

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.98	137	52.00
173	132.57	200	52.00
53	126.01	O-RV-R2	52.00
60	125.16	96	54.97
178	122.31	238	55.65
I-RV-R1	122.31	15	55.80
133	120.85	287	56.23
318	120.84	217	56.32
323	120.81	192	57.00
276	116.91	16	57.13

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.37	187	0.00
20	1.54	227	0.00
296	1.22	248	0.00
470	1.03	391	0.00
304	0.89	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.54	187	0.00
303	1.26	227	0.00
296	1.07	248	0.00
263	0.67	391	0.00
242	0.52	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.97	73.60	11.03
RV-2	PRV-1	86.70	ACTIVATED	116.06	86.70	48.38
RV-R1	PRV-1	93.20	ACTIVATED	122.31	93.20	38.18
RV-R2	PRV-1	52.00	ACTIVATED	81.80	52.00	58.33

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.96	
R-1	0.00	KAWC Tank
TANK-A	41.77	Old Tank
TANK-B	183.73	New Tank - P
TANK-C	288.97	Chinkapin Ta

NET SYSTEM INFLOW = 516.43
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 516.43

T A N K S T A T U S R E P O R T (time = 13.0000 hours)

TANK NAME	NET FLOW	WATER ELEVATION	TANK DEPTH	TANK VOLUME	TANK VOLUME	TANK STATUS	PROJECTED DEPTH
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(*)	(gpm)	(ft)	(ft)	(gal)	(%)	(ft)
TANK-A(1)	-41.77	1160.88	7.88	26657.	48.6	DRAINING 7.69
TANK-B(1)	-183.73	1160.12	25.12	369032.	69.8	DRAINING 24.94
TANK-C(1)	-288.97	1161.23	28.23	597079.	74.3	DRAINING 28.02

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 13.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 13.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 13.250
Time: 13.500
Time: 13.750
Time: 14.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 14.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
Time: 14.000

TIME FROM INITIATION OF EPS = 14.0000 HOURS (2.00PM, DAY: 1)

RESULTS OBTAINED AFTER 12 TRIALS: ACCURACY = 0.00004

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O. (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-8.52	0.00	0.00	0.05	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-16.74	0.85	0.00	0.43	0.27	0.27
123	192	207	37.87	0.07	0.00	0.24	0.03	0.03
169	5	1	-101.95	0.12	0.01	0.29	0.03	0.03
281	96	167	-20.10	0.88	0.00	0.51	0.30	0.30
284	167	34	12.27	0.49	0.00	0.31	0.15	0.15
320	89	192	28.24	0.05	0.00	0.18	0.03	0.02
328	239	107	8.52	0.00	0.00	0.02	0.00	0.00
338	89	I-AV-2	-6.25	0.00	0.00	0.02	0.00	0.00
341	291	167	49.27	0.01	0.00	0.14	0.01	0.01
348	253	89	21.99	0.00	0.00	0.09	0.00	0.00
469	291	339	162.03	0.23	0.00	0.46	0.07	0.07
473	338	339	-182.01	0.03	0.00	0.52	0.08	0.08

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM- TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12(0.50)	1159.87	990.00	169.87	73.61
66	Keene 4 way	2.18(0.50)	1158.87	905.00	253.87	110.01
79	James Lane E	1.72(0.50)	1158.37	915.00	243.37	105.46
131	Drakes Ln EO	0.41(0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68(0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54(0.50)	1158.38	850.00	308.38	133.63
182	End of Parke	1.30(0.50)	1158.39	915.00	243.39	105.47
217	Bark Woods	1.30(0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59(0.50)	1089.67	940.00	149.67	64.86

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	133.63	200	52.00
53	126.39	O-RV-R2	52.00
60	125.53	96	54.81
178	122.92	15	55.50
I-RV-R1	122.92	238	55.93
133	121.20	287	56.31
318	121.20	217	56.34
323	121.19	192	56.90
276	116.97	16	56.97

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
20	1.03	227	0.00
303	1.00	264	0.00
470	0.68	187	0.00
296	0.64	199	0.00
281	0.30	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.03	227	0.00
296	0.57	264	0.00
303	0.55	187	0.00
281	0.30	199	0.00
467	0.28	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING	VALVE STATUS	UPSTREAM PRESSURE	DOWNSTREAM PRESSURE	THROUGH FLOW
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		(psi or gpm)		(psi)	(psi)	(gpm)
RV-1	PRV-1	73.60	CLOSED	103.51	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	116.42	86.70	33.62
RV-R1	PRV-1	93.20	ACTIVATED	122.92	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	81.97	52.00	19.97

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	0.00	KAWC Tank
TANK-A	16.29	Old Tank
TANK-B	6.25	New Tank - P
TANK-C	234.69	Chinkapin Ta
NET SYSTEM INFLOW =	258.22	
NET SYSTEM OUTFLOW =	0.00	
NET SYSTEM DEMAND =	258.22	

T A N K S T A T U S R E P O R T (time = 14.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-16.29	1160.10	7.10	24041.	43.8	DRAINING	7.03
TANK-B(1)	-6.25	1159.37	24.37	357934.	67.7	DRAINING	24.36
TANK-C(1)	-234.69	1160.42	27.42	579925.	72.1	DRAINING	27.25

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 14.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 14.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 14.250
 Time: 14.500
 Time: 14.750
 Time: 15.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 15.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 15.000

TIME FROM INITIATION OF EPS = 15.0000 HOURS (3.00PM, DAY: 1)

RESULTS OBTAINED AFTER 10 TRIALS: ACCURACY = 0.00002

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-12.91	0.01	0.00	0.08	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-15.85	0.77	0.00	0.40	0.25	0.25
123	192	207	72.61	0.22	0.01	0.46	0.11	0.11
169	5	1	-148.05	0.24	0.01	0.42	0.06	0.06
281	96	167	-17.94	0.71	0.00	0.46	0.24	0.24
284	167	34	11.91	0.47	0.00	0.30	0.15	0.15
320	89	192	65.98	0.25	0.00	0.42	0.12	0.12
328	239	107	12.91	0.00	0.00	0.04	0.00	0.00
338	89	I-AV-2	-143.28	0.00	0.00	0.41	0.05	0.05
341	291	167	45.95	0.01	0.00	0.13	0.01	0.01
348	253	89	-77.30	0.04	0.00	0.32	0.04	0.04
469	291	339	137.01	0.17	0.00	0.39	0.05	0.05
473	338	339	-153.35	0.02	0.00	0.43	0.06	0.06

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1159.32	990.00	169.32	73.37
66	Keene 4 way	3.26(0.75)	1157.85	905.00	252.85	109.57
79	James Lane E	2.58(0.75)	1156.76	915.00	241.76	104.76
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1156.79	850.00	306.79	132.94
182	End of Parke	1.95(0.75)	1156.81	915.00	241.81	104.79
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	132.94	200	52.00
53	126.23	O-RV-R2	52.00
60	125.37	96	54.63
178	122.41	15	55.29
I-RV-R1	122.41	238	55.57
133	121.05	287	56.27
318	121.04	217	56.33

323	121.03	192	56.72
276	116.93	16	56.80

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	187	0.00
20	0.86	227	0.00
296	0.69	391	0.00
470	0.52	225	0.00
304	0.43	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	0.94	187	0.00
20	0.86	227	0.00
296	0.61	391	0.00
263	0.39	225	0.00
242	0.30	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	103.06	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	116.03	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	122.41	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	81.66	52.00	40.02

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	0.00	KAWC Tank
TANK-A	38.15	Old Tank
TANK-B	143.28	New Tank - P
TANK-C	204.42	Chinkapin Ta

NET SYSTEM INFLOW = 387.32
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 15.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-38.15	1159.69	6.69	22631.	41.3	DRAINING	6.52
TANK-B(1)	-143.28	1159.26	24.26	356308.	67.4	DRAINING	24.11
TANK-C(1)	-204.42	1159.83	26.83	567526.	70.6	DRAINING	26.69

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 15.250

CHANGES FOR NEXT SIMULATION (time = 15.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 15.250
 Time: 15.500
 Time: 15.750
 Time: 16.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 16.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1144.000
 Time: 16.000

TIME FROM INITIATION OF EPS = 16.0000 HOURS (4.00PM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00029

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-21.53	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-23.26	1.56	0.00	0.59	0.50	0.50
123	192	207	127.53	0.62	0.02	0.81	0.32	0.31
169	5	1	-246.13	0.61	0.04	0.70	0.15	0.15
281	96	167	-25.20	1.34	0.00	0.64	0.45	0.45
284	167	34	17.63	0.97	0.00	0.45	0.30	0.30
320	89	192	120.41	0.76	0.01	0.77	0.37	0.36
328	239	107	21.53	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-290.87	0.01	0.00	0.83	0.20	0.20
341	291	167	66.52	0.02	0.00	0.19	0.01	0.01
348	253	89	-170.46	0.19	0.00	0.70	0.18	0.18
469	291	339	190.86	0.31	0.00	0.54	0.09	0.09
473	338	339	-213.25	0.04	0.00	0.60	0.11	0.11

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET	OUTLET	PUMP	EFFIC-	USEFUL	INCREMTL	TOTAL	#PUMPS	#PUMPS	NPSH
		HEAD (ft)	HEAD (ft)	HEAD (ft)	ENCY (%)	POWER (Hp)	COST (\$)	COST (\$)	PARALLEL	SERIES	Avail. (ft)

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1158.20	990.00	168.20	72.89
66	Keene 4 way	5.44(1.25)	1154.68	905.00	249.68	108.20
79	James Lane E	4.30(1.25)	1151.85	915.00	236.85	102.64
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1151.92	850.00	301.92	130.83
182	End of Parke	3.25(1.25)	1151.98	915.00	236.98	102.69
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	130.83	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	96	54.09
178	120.90	238	54.47
I-RV-R1	120.90	15	54.95
133	120.60	192	56.10
318	120.59	287	56.17
323	120.54	16	56.26
276	116.89	217	56.30

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00
20	1.60	231	0.00
304	1.50	248	0.00
296	1.48	227	0.00
470	1.03	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	1.69	187	0.00
20	1.60	231	0.00
296	1.30	248	0.00
263	1.01	227	0.00
242	0.78	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.58	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	114.81	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	120.90	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	80.68	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE FLOWRATE NODE

NAME (gpm) TITLE

FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	63.92	Old Tank
TANK-B	290.87	New Tank - P
TANK-C	288.30	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 16.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-63.92	1159.07	6.07	20530.	37.4	DRAINING	5.78
TANK-B(1)	-290.87	1158.67	23.67	347676.	65.7	DRAINING	23.37
TANK-C(1)	-288.30	1159.24	26.24	555108.	69.1	DRAINING	26.04

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 16.250

CHANGES FOR NEXT SIMULATION (time = 16.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 16.250
 Time: 16.500
 Time: 16.750
 Time: 17.000

CHANGES FOR NEXT SIMULATION (time = 17.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1142.000
 Time: 17.000

TIME FROM INITIATION OF EPS = 17.0000 HOURS (5.00PM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-34.47	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-36.26	3.56	0.00	0.93	1.15	1.15
123	192	207	206.39	1.52	0.04	1.32	0.77	0.75
169	5	1	-393.61	1.45	0.09	1.12	0.37	0.35
281	96	167	-38.91	3.00	0.00	0.99	1.00	1.00
284	167	34	27.54	2.21	0.01	0.70	0.69	0.69

320	89	192	196.44	1.88	0.04	1.25	0.91	0.90
328	239	107	34.47	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-482.00	0.02	0.00	1.37	0.50	0.50
341	291	167	103.38	0.05	0.01	0.29	0.03	0.03
348	253	89	-285.56	0.51	0.00	1.17	0.46	0.46
469	291	339	295.04	0.69	0.00	0.84	0.20	0.20
473	338	339	-329.53	0.08	0.00	0.93	0.25	0.25

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1156.00	990.00	166.00	71.93
66	Keene 4 way	8.70(2.00)	1147.73	905.00	242.73	105.18
79	James Lane E	6.88(2.00)	1140.92	915.00	225.92	97.90
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1141.08	850.00	291.08	126.13
182	End of Parke	5.20(2.00)	1141.23	915.00	226.23	98.03
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	126.13	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	238	52.05
133	119.59	96	52.96
318	119.55	15	54.34
323	119.44	192	54.77
178	117.57	16	55.14
I-RV-R1	117.57	287	55.92
276	116.78	217	56.23

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00
304	4.11	248	0.00
20	3.57	213	0.00
296	3.43	391	0.00
263	2.45	227	0.00

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	3.57	187	0.00
303	3.49	248	0.00
296	2.98	213	0.00
263	2.40	391	0.00
242	1.86	227	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	98.30	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	112.13	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	117.57	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	78.56	52.00	128.08

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	100.38	Old Tank
TANK-B	482.00	New Tank - P
TANK-C	446.56	Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 17.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-100.38	1158.04	5.04	17059.	31.1	DRAINING	4.60
TANK-B(1)	-482.00	1157.51	22.51	330598.	62.5	DRAINING	22.01
TANK-C(1)	-446.56	1158.39	25.39	537072.	66.8	DRAINING	25.07

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 17.250

CHANGES FOR NEXT SIMULATION (time = 17.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 17.250
 Time: 17.500
 Time: 17.750
 Time: 18.000

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
Time: 18.000

TIME FROM INITIATION OF EPS = 18.0000 HOURS (6.00PM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-34.45	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-37.76	3.83	0.00	0.96	1.24	1.24
123	192	207	203.66	1.48	0.04	1.30	0.76	0.74
169	5	1	-394.13	1.46	0.09	1.12	0.37	0.35
281	96	167	-41.20	3.33	0.00	1.05	1.12	1.12
284	167	34	28.59	2.36	0.01	0.73	0.74	0.74
320	89	192	191.89	1.80	0.03	1.22	0.88	0.86
328	239	107	34.45	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-460.85	0.01	0.00	1.31	0.46	0.46
341	291	167	108.22	0.05	0.01	0.31	0.04	0.03
348	253	89	-268.96	0.45	0.00	1.10	0.42	0.42
469	291	339	321.96	0.82	0.00	0.91	0.24	0.24
473	338	339	-359.93	0.10	0.00	1.02	0.29	0.29

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1154.50	990.00	164.50	71.28
66	Keene 4 way	8.70(2.00)	1146.04	905.00	241.04	104.45
79	James Lane E	6.88(2.00)	1139.22	915.00	224.22	97.16
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1139.38	850.00	289.38	125.40
182	End of Parke	5.20(2.00)	1139.53	915.00	224.53	97.30
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	238	51.32
173	125.40	137	51.98
53	124.65	200	51.98
60	123.82	O-RV-R2	52.00
133	119.59	96	52.24
318	119.55	15	53.69
323	119.44	192	54.01
178	116.84	16	54.41
I-RV-R1	116.84	100	55.72
276	116.78	11	55.72

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00
304	4.11	248	0.00
20	3.89	213	0.00
296	3.60	391	0.00
470	2.82	227	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	3.89	187	0.00
303	3.49	248	0.00
296	3.13	213	0.00
263	2.40	391	0.00
242	1.86	227	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	97.57	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	111.41	86.70	84.48
RV-R1	PRV-1	93.20	ACTIVATED	116.84	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	77.84	52.00	128.08

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	86.30	Old Tank
TANK-B	460.85	New Tank - P
TANK-C	481.80	Chinkapin Ta
NET SYSTEM INFLOW	= 1032.86	
NET SYSTEM OUTFLOW	= 0.00	
NET SYSTEM DEMAND	= 1032.86	

=====
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE ELEMENT	STATUS	REFERENCE NODE	REFERENCE GRADE (ft)	NEXT SWITCH GRADE (ft)
Pump-1	OPENED	291	1156.94	1170.00

Time: 18.000

TIME FROM INITIATION OF EPS = 18.0000 HOURS (6.00PM, DAY: 1)

RESULTS OBTAINED AFTER 10 TRIALS: ACCURACY = 0.00014

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-288.55	2.21	0.25	1.84	1.56	1.40
3	208	107	1164.96	1.39	2.39	3.30	7.04	2.58
120	124	167	-25.69	1.88	0.00	0.66	0.61	0.61
123	192	207	-77.93	0.25	0.01	0.50	0.13	0.12
169	5	1	499.00	2.26	0.15	1.42	0.57	0.54
281	96	167	-17.92	0.71	0.00	0.46	0.24	0.24
284	167	34	20.09	1.23	0.01	0.51	0.39	0.38
320	89	192	-88.99	0.43	0.01	0.57	0.21	0.21
328	239	107	-876.41	4.25	0.00	2.49	1.52	1.52
338	89	I-AV-2	189.21	0.00	0.00	0.54	0.09	0.09
341	291	167	64.38	0.02	0.00	0.18	0.01	0.01
348	253	89	100.22	0.07	0.00	0.41	0.07	0.07
469	291	339	66.75	0.04	0.00	0.19	0.01	0.01
473	338	339	-71.07	0.00	0.00	0.20	0.01	0.01

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1164.96	149.38	189.03	39.6	65.64	12.	0.2	2.5	**	**	182.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1155.81	990.00	165.81	71.85
66	Keene 4 way	8.70(2.00)	1152.14	905.00	247.14	107.09
79	James Lane E	6.88(2.00)	1148.10	915.00	233.10	101.01
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1148.26	850.00	298.26	129.24
182	End of Parke	5.20(2.00)	1148.41	915.00	233.41	101.14
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	129.24	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	96	53.44
133	119.59	15	54.16
318	119.55	192	55.55
178	119.49	16	55.70
I-RV-R1	119.49	287	55.92
323	119.44	217	56.23
276	116.78	TANK-A	56.50

HL + ML / 1000

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	22.93	248	0.00
3	7.04	355	0.00
303	6.80	213	0.00
304	4.11	391	0.00
9	3.46	227	0.00

HL / 1000

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	3.49	248	0.00
9	3.46	355	0.00
38	3.46	213	0.00
418	3.24	391	0.00
3	2.58	227	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	100.38	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	112.67	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	119.49	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	79.12	52.00	128.08

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	1164.96	KAWC Tank
TANK-A	-95.91	Old Tank
TANK-B	-189.21	New Tank - P
TANK-C	149.10	Chinkapin Ta

NET SYSTEM INFLOW = 1317.98
 NET SYSTEM OUTFLOW = -285.12
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 18.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	95.91	1156.38	3.38	11453.	20.9	FILLING	3.81
TANK-B(1)	189.21	1155.57	20.57	302171.	57.1	FILLING	20.76
TANK-C(1)	-149.10	1157.08	24.08	509367.	63.4	DRAINING	23.98

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 18.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 18.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 18.250
Time: 18.500
Time: 18.750
Time: 19.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 19.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1112.000
Time: 19.000

TIME FROM INITIATION OF EPS = 19.0000 HOURS (7.00PM, DAY: 1)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00041

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
2	13 107	-238.06	1.54	0.17	1.52	1.09	0.98
3	208 107	970.26	0.99	1.66	2.75	4.93	1.84
120	124 167	-17.25	0.90	0.00	0.44	0.29	0.29
123	192 207	-83.79	0.29	0.01	0.53	0.15	0.14
169	5 1	441.65	1.80	0.11	1.25	0.46	0.43
281	96 167	-8.25	0.17	0.00	0.21	0.06	0.06
284	167 34	13.64	0.60	0.00	0.35	0.19	0.19
320	89 192	-89.53	0.44	0.01	0.57	0.21	0.21
328	239 107	-732.20	3.04	0.00	2.08	1.09	1.09
338	89 I-AV-2	174.50	0.00	0.00	0.49	0.08	0.08
341	291 167	39.66	0.01	0.00	0.11	0.01	0.00
348	253 89	84.97	0.05	0.00	0.35	0.05	0.05
469	291 339	-80.86	0.06	0.00	0.23	0.02	0.02
473	338 339	93.08	0.01	0.00	0.26	0.02	0.02

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	970.26	121.56	183.54	62.0	76.26	15.	0.2	3.2	**	**	154.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.35 (1.50)	1156.29	990.00	166.29	72.06
66	Keene 4 way	6.53 (1.50)	1154.52	905.00	249.52	108.13
79	James Lane E	5.16 (1.50)	1152.49	915.00	237.49	102.91
131	Drakes Ln EO	1.22 (1.50)	1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03 (1.50)	1087.55	840.00	247.55	107.27
173	Stirling Est	4.61 (1.50)	1152.59	850.00	302.59	131.12
182	End of Parke	3.90 (1.50)	1152.67	915.00	237.67	102.99
217	Bark Woods	3.90 (1.50)	1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77 (1.50)	1087.44	940.00	147.44	63.89

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	131.12	200	51.99
53	125.43	O-RV-R2	52.00
60	124.59	I-Pump-1	52.67
178	120.75	209	52.75
I-RV-R1	120.75	I-Pump-2	52.75
133	120.31	96	53.61
318	120.29	15	54.16
323	120.23	R-1	55.03
276	116.86	192	55.83

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	16.61	270	0.00
3	4.93	248	0.00
303	4.23	87	0.00
9	2.56	227	0.00
418	2.28	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	2.56	270	0.00
38	2.56	248	0.00
418	2.28	87	0.00
303	2.21	227	0.00
78	1.84	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.54	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	113.94	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	120.75	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	79.98	52.00	93.67

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	
R-1	970.26	KAWC Tank
TANK-A	19.13	Old Tank
TANK-B	-174.50	New Tank - P
TANK-C	-43.18	Chinkapin Ta

NET SYSTEM INFLOW = 992.33
 NET SYSTEM OUTFLOW = -217.68
 NET SYSTEM DEMAND = 774.65

T A N K S T A T U S R E P O R T (time = 19.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-19.13	1157.00	4.00	13530.	24.7	DRAINING	3.91
TANK-B(1)	174.50	1156.25	21.25	312072.	59.0	FILLING	21.42
TANK-C(1)	43.18	1156.90	23.90	505514.	62.9	FILLING	23.93

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 19.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 19.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 19.250
 Time: 19.500
 Time: 19.750
 Time: 20.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 20.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1112.000
 Time: 20.000

TIME FROM INITIATION OF EPS = 20.0000 HOURS (8.00PM, DAY: 1)

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-232.03	1.47	0.16	1.48	1.04	0.94
3	208	107	958.67	0.97	1.62	2.72	4.82	1.80
120	124	167	-11.61	0.43	0.00	0.30	0.14	0.14
123	192	207	-103.63	0.42	0.01	0.66	0.22	0.21
169	5	1	472.66	2.04	0.13	1.34	0.52	0.49
281	96	167	5.50	0.08	0.00	0.14	0.03	0.03
284	167	34	9.40	0.30	0.00	0.24	0.09	0.09
320	89	192	-106.94	0.61	0.01	0.68	0.30	0.29
328	239	107	-726.64	3.00	0.00	2.06	1.08	1.08
338	89	I-AV-2	171.75	0.00	0.00	0.49	0.07	0.07
341	291	167	15.93	0.00	0.00	0.05	0.00	0.00
348	253	89	64.81	0.03	0.00	0.26	0.03	0.03
469	291	339	-120.92	0.13	0.00	0.34	0.04	0.04
473	338	339	-138.16	0.02	0.00	0.39	0.05	0.05

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	958.67	121.56	184.66	63.1	76.72	15.	0.2	3.9	**	**	154.7

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1156.72	990.00	166.72	72.24
66	Keene 4 way	5.44(1.25)	1156.02	905.00	251.02	108.77
79	James Lane E	4.30(1.25)	1155.17	915.00	240.17	104.08
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1155.24	850.00	305.24	132.27
182	End of Parke	3.25(1.25)	1155.30	915.00	240.30	104.13
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	132.27	200	51.99
53	125.75	O-RV-R2	52.00

60	124.90	I-Pump-1	52.68
178	121.49	209	52.75
I-RV-R1	121.49	I-Pump-2	52.75
133	120.60	96	53.78
318	120.59	15	54.25
323	120.54	R-1	55.03
276	116.89	16	56.00

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	17.10	248	0.00
3	4.82	227	0.00
303	3.21	391	0.00
9	2.63	225	0.00
418	2.20	213	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	2.63	248	0.00
38	2.63	227	0.00
418	2.20	391	0.00
11	1.81	225	0.00
78	1.80	213	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.24	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	114.58	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	121.49	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	80.46	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	958.67	KAWC Tank
TANK-A	-30.13	Old Tank
TANK-B	-171.75	New Tank - P
TANK-C	-113.69	Chinkapin Ta

NET SYSTEM INFLOW = 961.12
 NET SYSTEM OUTFLOW = -315.58
 NET SYSTEM DEMAND = 645.54

T A N K S T A T U S R E P O R T (time = 20.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	30.13	1157.12	4.12	13949.	25.4	FILLING	4.26
TANK-B(1)	171.75	1156.86	21.86	321061.	60.7	FILLING	22.03
TANK-C(1)	113.69	1157.01	24.01	507965.	63.2	FILLING	24.10

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====

Time: 20.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 20.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 20.250
Time: 20.500
Time: 20.750
Time: 21.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 21.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1121.000
Time: 21.000

TIME FROM INITIATION OF EPS = 21.0000 HOURS (9.00PM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00027

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-245.17	1.63	0.18	1.56	1.15	1.04
3	208	107	1017.32	1.08	1.82	2.89	5.41	2.01
120	124	167	-8.87	0.26	0.00	0.23	0.08	0.08
123	192	207	-115.89	0.52	0.01	0.74	0.27	0.26
169	5	1	513.46	2.38	0.15	1.46	0.60	0.57
281	96	167	10.91	0.28	0.00	0.28	0.10	0.10
284	167	34	7.44	0.20	0.00	0.19	0.06	0.06
320	89	192	-118.61	0.74	0.01	0.76	0.36	0.35
328	239	107	-772.16	3.36	0.00	2.19	1.21	1.21
338	89	I-AV-2	174.78	0.00	0.00	0.50	0.08	0.08
341	291	167	5.82	0.00	0.00	0.02	0.00	0.00
348	253	89	56.16	0.02	0.00	0.23	0.02	0.02
469	291	339	-156.43	0.21	0.00	0.44	0.06	0.06
473	338	339	178.28	0.03	0.00	0.51	0.08	0.08

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1017.32	130.51	187.70	57.2	74.20	15.	0.2	4.7	**	**	163.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1157.20	990.00	167.20	72.45
66	Keene 4 way	5.44(1.25)	1156.79	905.00	251.79	109.11
79	James Lane E	4.30(1.25)	1156.24	915.00	241.24	104.54
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1156.31	850.00	306.31	132.73
182	End of Parke	3.25(1.25)	1156.37	915.00	241.37	104.59
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	132.73	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	96	54.03
178	121.82	15	54.45
I-RV-R1	121.82	287	56.17
133	120.60	16	56.26
318	120.59	217	56.30
323	120.54	192	56.51
276	116.89	I-Pump-1	56.56

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	19.54	122	0.00
3	5.41	248	0.00
303	3.21	227	0.00
9	2.98	391	0.00
418	2.45	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	2.98	122	0.00
38	2.98	248	0.00
418	2.45	227	0.00
11	2.08	391	0.00
78	2.01	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.58	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	114.85	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	121.82	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	80.73	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	1017.32	KAWC Tank
TANK-A	-35.53	Old Tank
TANK-B	-174.78	New Tank - P
TANK-C	-163.93	Chinkapin Ta

NET SYSTEM INFLOW = 1019.77
 NET SYSTEM OUTFLOW = -374.24
 NET SYSTEM DEMAND = 645.54

T A N K S T A T U S R E P O R T (time = 21.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	35.53	1157.58	4.58	15487.	28.2	FILLING	4.73
TANK-B(1)	174.78	1157.51	22.51	330600.	62.5	FILLING	22.69
TANK-C(1)	163.93	1157.38	24.38	515736.	64.2	FILLING	24.50

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 21.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 21.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 21.250
 Time: 21.500
 Time: 21.750
 Time: 22.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 22.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1131.000
 Time: 22.000

TIME FROM INITIATION OF EPS = 22.0000 HOURS (10.00PM, DAY: 1)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00022

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-252.81	1.73	0.19	1.61	1.22	1.10

3	208	107	1067.06	1.18	2.01	3.03	5.93	2.19
120	124	167	4.66	0.08	0.00	0.12	0.03	0.03
123	192	207	-152.34	0.87	0.02	0.97	0.44	0.43
169	5	1	584.58	3.02	0.20	1.66	0.77	0.72
281	96	167	17.64	0.69	0.00	0.45	0.23	0.23
284	167	34	-1.87	0.02	0.00	0.05	0.00	0.00
320	89	192	-153.75	1.20	0.02	0.98	0.58	0.57
328	239	107	-814.25	3.71	0.00	2.31	1.33	1.33
338	89	I-AV-2	253.05	0.00	0.00	0.72	0.15	0.15
341	291	167	-23.84	0.00	0.00	0.07	0.00	0.00
348	253	89	99.30	0.07	0.00	0.41	0.07	0.07
469	291	339	-201.32	0.34	0.00	0.57	0.10	0.10
473	338	339	228.63	0.04	0.00	0.65	0.13	0.13

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1067.06	140.47	192.13	51.7	71.68	14.	0.2	5.4	**	**	173.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.24	1157.93	990.00	167.93	72.77
66	Keene 4 way	4.35	1158.68	905.00	253.68	109.93
79	James Lane E	3.44	1159.64	915.00	244.64	106.01
131	Drakes Ln EO	0.81	1088.87	935.00	153.87	66.68
157	KY1267 EOL	1.35	1088.85	840.00	248.85	107.83
173	Stirling Est	3.07	1159.69	850.00	309.69	134.20
182	End of Parke	2.60	1159.73	915.00	244.73	106.05
217	Bark Woods	2.60	1089.97	960.00	129.97	56.32
233	Hagin EOL	1.18	1088.79	940.00	148.79	64.48

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.98	137	52.00
173	134.20	200	52.00
53	126.01	O-RV-R2	52.00
60	125.16	96	54.43
178	122.72	15	54.74
I-RV-R1	122.72	287	56.23
133	120.85	217	56.32
318	120.84	16	56.66
323	120.81	192	57.09
276	116.91	TANK-A	57.26

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
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38	22.82	227	0.00
3	5.93	248	0.00
9	3.45	391	0.00
296	3.03	151	0.00
418	2.63	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	3.45	227	0.00
38	3.45	248	0.00
296	2.64	391	0.00
418	2.63	151	0.00
11	2.49	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	103.46	73.60	11.03
RV-2	PRV-1	86.70	ACTIVATED	115.59	86.70	48.38
RV-R1	PRV-1	93.20	ACTIVATED	122.72	93.20	38.18
RV-R2	PRV-1	52.00	ACTIVATED	81.33	52.00	58.33

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.96	
R-1	1067.06	KAWC Tank
TANK-A	-53.90	Old Tank
TANK-B	-253.05	New Tank - P
TANK-C	-245.64	Chinkapin Ta

NET SYSTEM INFLOW = 1069.02
 NET SYSTEM OUTFLOW = -552.59
 NET SYSTEM DEMAND = 516.43

T A N K S T A T U S R E P O R T (time = 22.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	53.90	1158.14	5.14	17400.	31.7	FILLING	5.38
TANK-B(1)	253.05	1158.19	23.19	340626.	64.4	FILLING	23.45
TANK-C(1)	245.64	1157.88	24.88	526159.	65.5	FILLING	25.05

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 22.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 22.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 22.250
 Time: 22.500
 Time: 22.750
 Time: 23.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 23.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
 Time: 23.000

TIME FROM INITIATION OF EPS = 23.0000 HOURS (11.00PM, DAY: 1)

RESULTS OBTAINED AFTER 15 TRIALS: ACCURACY = 0.00008

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-245.03	1.63	0.18	1.56	1.15	1.04
3	208	107	1079.56	1.20	2.05	3.06	6.07	2.24
120	124	167	22.92	1.52	0.00	0.59	0.49	0.49
123	192	207	-233.56	1.91	0.05	1.49	0.97	0.95
169	5	1	713.32	4.37	0.30	2.02	1.11	1.04
281	96	167	31.72	2.05	0.00	0.81	0.69	0.69
284	167	34	-15.76	0.78	0.00	0.40	0.25	0.25
320	89	192	-230.67	2.54	0.05	1.47	1.23	1.21
328	239	107	-834.53	3.88	0.00	2.37	1.39	1.39
338	89	I-AV-2	452.42	0.01	0.00	1.28	0.45	0.45
341	291	167	-70.31	0.02	0.00	0.20	0.02	0.01
348	253	89	221.75	0.32	0.00	0.91	0.29	0.29
469	291	339	-297.21	0.70	0.00	0.84	0.21	0.21
473	338	339	335.73	0.09	0.00	0.95	0.26	0.26

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 212 336 337
 474 133

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1079.56	149.46	199.66	50.2	70.98	14.	0.2	6.1	**	**	182.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.06(0.25)	1159.52	990.00	169.52	73.46
66	Keene 4 way	1.09(0.25)	1164.81	905.00	259.81	112.58
79	James Lane E	0.86(0.25)	1168.20	915.00	253.20	109.72

131	Drakes Ln EO	0.20(0.25)	1089.95	935.00	154.95	67.14
157	KY1267 EOL	0.34(0.25)	1089.95	840.00	249.95	108.31
173	Stirling Est	0.77(0.25)	1168.20	850.00	318.20	137.89
182	End of Parke	0.65(0.25)	1168.21	915.00	253.21	109.72
217	Bark Woods	0.65(0.25)	1090.04	960.00	130.04	56.35
233	Hagin EOL	0.30(0.25)	1089.94	940.00	149.94	64.97

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.47	137	52.01
173	137.89	200	52.01
53	126.51	O-RV-R2	52.01
60	125.64	15	55.28
178	125.56	96	55.37
I-RV-R1	125.56	287	56.34
318	121.31	217	56.35
133	121.31	16	57.60
323	121.31	TANK-A	57.63
171	119.07	O-AV-1	57.68

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	26.81	199	0.00
3	6.07	441	0.00
296	5.27	391	0.00
9	4.01	201	0.00
11	3.16	162	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	4.56	199	0.00
9	4.01	441	0.00
38	4.01	391	0.00
11	3.16	201	0.00
418	2.57	162	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	106.28	73.68	0.00
RV-2	PRV-1	86.70	ACTIVATED	117.17	86.70	25.74
RV-R1	PRV-1	93.20	ACTIVATED	125.56	93.20	13.24
RV-R2	PRV-1	52.00	CLOSED	82.65	52.01	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.49	
R-1	1079.56	KAWC Tank
TANK-A	-94.18	Old Tank
TANK-B	-452.42	New Tank - P
TANK-C	-404.34	Chinkapin Ta

NET SYSTEM INFLOW = 1080.05
NET SYSTEM OUTFLOW = -950.94
NET SYSTEM DEMAND = 129.11

TANK STATUS REPORT (time = 23.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	94.18	1159.00	6.00	20316.	37.1	FILLING	6.42
TANK-B(1)	452.42	1159.19	24.19	355323.	67.2	FILLING	24.65
TANK-C(1)	404.34	1158.60	25.60	541577.	67.4	FILLING	25.89

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 23.250

CHANGES FOR NEXT SIMULATION (time = 23.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 23.250
Time: 23.500
Time: 23.750
Time: 24.000

CHANGES FOR NEXT SIMULATION (time = 24.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
Time: 24.000

TIME FROM INITIATION OF EPS = 24.0000 HOURS (12.00PM, DAY: 1)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00008

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-256.54	1.77	0.20	1.64	1.25	1.13
3	208	107	1140.49	1.33	2.29	3.24	6.75	2.48
120	124	167	28.57	2.29	0.00	0.73	0.74	0.74
123	192	207	-263.07	2.38	0.07	1.68	1.21	1.18
169	5	1	781.85	5.18	0.36	2.22	1.32	1.23
281	96	167	38.54	2.95	0.00	0.98	0.99	0.99
284	167	34	-19.88	1.21	0.01	0.51	0.38	0.38
320	89	192	-258.02	3.12	0.06	1.65	1.52	1.49
328	239	107	-883.95	4.31	0.00	2.51	1.55	1.55
338	89	I-AV-2	503.78	0.02	0.00	1.43	0.55	0.55
341	291	167	-86.95	0.04	0.00	0.25	0.02	0.02
348	253	89	245.76	0.38	0.00	1.00	0.35	0.35
469	291	339	-355.02	0.98	0.00	1.01	0.29	0.29
473	338	339	400.73	0.12	0.00	1.14	0.36	0.36

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
 98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1140.49	163.40	206.18	42.8	67.28	12.	0.2	6.9	**	**	196.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1161.19	990.00	171.19	74.18
66	Keene 4 way	0.44(0.10)	1168.59	905.00	263.59	114.22
79	James Lane E	0.34(0.10)	1172.55	915.00	257.55	111.60
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1172.55	850.00	322.55	139.77
182	End of Parke	0.26(0.10)	1172.55	915.00	257.55	111.60
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	139.77	200	52.03
178	127.22	O-RV-R2	52.03
I-RV-R1	127.22	15	55.97
53	126.56	96	56.30
60	125.69	287	56.36
318	121.36	217	56.36
133	121.36	TANK-A	58.30
323	121.36	O-AV-1	58.35
171	120.72	TANK-C	58.41

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	30.69	199	0.00
3	6.75	391	0.00
296	6.57	441	0.00
9	4.55	201	0.00
11	3.65	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)

296	5.67	199	0.00
9	4.55	391	0.00
38	4.55	441	0.00
11	3.65	201	0.00
20	3.19	225	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	107.96	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	118.25	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	127.22	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	83.62	52.03	0.00

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1140.49	KAWC Tank
TANK-A	-98.27	Old Tank
TANK-B	-503.78	New Tank - P
TANK-C	-487.00	Chinkapin Ta

NET SYSTEM INFLOW = 1140.68
 NET SYSTEM OUTFLOW = -1089.04
 NET SYSTEM DEMAND = 51.64

TANK STATUS REPORT (time = 24.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	98.27	1160.53	7.53	25498.	46.5	FILLING	7.97
TANK-B(1)	503.78	1160.99	25.99	381826.	72.2	FILLING	26.51
TANK-C(1)	487.00	1159.79	26.79	566744.	70.5	FILLING	27.14

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 24.250

CHANGES FOR NEXT SIMULATION (time = 24.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 24.250
 Time: 24.500
 Time: 24.750
 Time: 25.000

CHANGES FOR NEXT SIMULATION (time = 25.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
 Time: 25.000

TIME FROM INITIATION OF EPS = 25.0000 HOURS (1.00AM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00012

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-236.71	1.53	0.17	1.51	1.08	0.97
3	208	107	1051.83	1.15	1.95	2.98	5.77	2.14
120	124	167	28.64	2.30	0.00	0.73	0.74	0.74
123	192	207	-239.39	2.00	0.05	1.53	1.02	0.99
169	5	1	720.59	4.46	0.30	2.04	1.13	1.06
281	96	167	38.48	2.94	0.00	0.98	0.98	0.98
284	167	34	-19.93	1.21	0.01	0.51	0.38	0.38
320	89	192	-233.29	2.59	0.05	1.49	1.26	1.23
328	239	107	-815.12	3.71	0.00	2.31	1.33	1.33
338	89	I-AV-2	434.81	0.01	0.00	1.23	0.42	0.42
341	291	167	-87.01	0.04	0.00	0.25	0.02	0.02
348	253	89	201.52	0.27	0.00	0.82	0.24	0.24
469	291	339	-356.07	0.98	0.00	1.01	0.29	0.29
473	338	339	401.92	0.12	0.00	1.14	0.36	0.36

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1051.83	149.48	202.88	53.4	72.49	14.	0.2	7.6	**	**	182.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1162.61	990.00	172.61	74.80
66	Keene 4 way	0.44(0.10)	1169.19	905.00	264.19	114.48
79	James Lane E	0.34(0.10)	1172.59	915.00	257.59	111.62
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1172.59	850.00	322.59	139.79
182	End of Parke	0.26(0.10)	1172.59	915.00	257.59	111.62
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	139.79	200	52.03
178	127.48	O-RV-R2	52.03
I-RV-R1	127.48	287	56.36
53	126.56	217	56.36
60	125.69	15	56.59
318	121.36	96	56.91
133	121.36	18	58.53
323	121.36	TANK-A	59.02
171	120.99	TANK-C	59.02

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	26.12	199	0.00
296	5.83	391	0.00
3	5.77	441	0.00
9	3.91	201	0.00
20	3.14	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.04	199	0.00
9	3.91	391	0.00
38	3.91	441	0.00
20	3.14	201	0.00
11	3.13	225	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	108.19	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	118.87	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	127.48	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	84.23	52.03	0.00

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1051.83	KAWC Tank
TANK-A	-77.32	Old Tank
TANK-B	-434.81	New Tank - P
TANK-C	-488.25	Chinkapin Ta

NET SYSTEM INFLOW = 1052.02
 NET SYSTEM OUTFLOW = -1000.38
 NET SYSTEM DEMAND = 51.64

TANK STATUS REPORT (time = 25.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)

TANK-A(1)	77.32	1162.20	9.20	31126.	56.8	FILLING	9.54
TANK-B(1)	434.81	1163.01	28.01	411452.	77.8	FILLING	28.45
TANK-C(1)	488.25	1161.21	28.21	596618.	74.2	FILLING	28.55

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 25.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 25.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 25.250
Time: 25.500
Time: 25.750
Time: 26.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 26.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1158.000
Time: 26.000

TIME FROM INITIATION OF EPS = 26.0000 HOURS (2.00AM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00008

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-257.32	1.78	0.20	1.64	1.26	1.13
3	208	107	1143.94	1.34	2.31	3.24	6.79	2.50
120	124	167	31.36	2.72	0.00	0.80	0.88	0.88
123	192	207	-260.97	2.35	0.06	1.67	1.20	1.16
169	5	1	785.28	5.22	0.36	2.23	1.33	1.24
281	96	167	42.09	3.47	0.00	1.07	1.16	1.16
284	167	34	-21.83	1.43	0.01	0.56	0.45	0.45
320	89	192	-254.07	3.03	0.06	1.62	1.47	1.44
328	239	107	-886.62	4.34	0.00	2.52	1.56	1.56
338	89	I-AV-2	471.27	0.01	0.00	1.34	0.48	0.48
341	291	167	-95.24	0.04	0.00	0.27	0.03	0.02
348	253	89	217.20	0.30	0.00	0.89	0.28	0.28
469	291	339	-382.58	1.12	0.00	1.09	0.33	0.33
473	338	339	431.83	0.14	0.00	1.22	0.41	0.41

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE	INLET HEAD	OUTLET HEAD	PUMP HEAD	EFFIC- ENCY	USEFUL POWER	INCREMTL COST	TOTAL COST	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail.
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	(gpm)	(ft)	(ft)	(%)	(Hp)	(\\$)	(\\$)	(ft)
Pump-1	1143.94	167.40	209.74	42.3	67.05	12.	0.2	8.3 ** ** 200.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1164.26	990.00	174.26	75.51
66	Keene 4 way	0.44(0.10)	1172.03	905.00	267.03	115.71
79	James Lane E	0.34(0.10)	1176.01	915.00	261.01	113.10
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1176.01	850.00	326.01	141.27
182	End of Parke	0.26(0.10)	1176.01	915.00	261.01	113.10
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	141.27	200	52.03
178	128.72	O-RV-R2	52.03
I-RV-R1	128.72	287	56.36
53	126.56	217	56.36
60	125.69	15	57.27
171	122.22	96	57.76
170	122.22	18	58.53
179	122.11	295	59.40
181	121.77	TANK-A	59.62

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	30.87	199	0.00
296	6.89	391	0.00
3	6.79	441	0.00
9	4.58	201	0.00
20	3.79	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.94	199	0.00
9	4.58	391	0.00
38	4.58	441	0.00
20	3.79	201	0.00
11	3.67	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
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RV-1	PRV-1	73.60	CLOSED	109.45	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	119.72	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	128.72	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	85.09	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1143.94	KAWC Tank
TANK-A	-94.84	Old Tank
TANK-B	-471.27	New Tank - P
TANK-C	-526.38	Chinkapin Ta

NET SYSTEM INFLOW = 1144.14
 NET SYSTEM OUTFLOW = -1092.49
 NET SYSTEM DEMAND = 51.64

T A N K S T A T U S R E P O R T (time = 26.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	94.84	1163.59	10.59	35854.	65.4	FILLING	11.01
TANK-B(1)	471.27	1164.75	29.75	437062.	82.7	FILLING	30.24
TANK-C(1)	526.38	1162.60	29.60	626089.	77.9	FILLING	29.97

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 26.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 26.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 26.250
 Time: 26.500
 Time: 26.750
 Time: 27.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 27.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 27.000

TIME FROM INITIATION OF EPS = 27.0000 HOURS (3.00AM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00007

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1 0 0 0 (ft/ft)	H L / 1 0 0 0 (ft/ft)
	#1	#2						
2	13	107	-248.02	1.67	0.18	1.58	1.18	1.06
3	208	107	1092.84	1.23	2.10	3.10	6.21	2.29
120	124	167	29.63	2.45	0.00	0.76	0.79	0.79
123	192	207	-230.64	1.87	0.05	1.47	0.95	0.93
169	5	1	724.80	4.50	0.31	2.06	1.15	1.07
281	96	167	40.22	3.19	0.00	1.03	1.07	1.07
284	167	34	-20.45	1.27	0.01	0.52	0.40	0.40
320	89	192	-223.88	2.40	0.05	1.43	1.17	1.14
328	239	107	-844.82	3.97	0.00	2.40	1.42	1.42
338	89	I-AV-2	382.71	0.01	0.00	1.09	0.33	0.33
341	291	167	-90.22	0.04	0.00	0.26	0.03	0.02
348	253	89	158.83	0.17	0.00	0.65	0.16	0.16
469	291	339	-370.54	1.06	0.00	1.05	0.31	0.31
473	338	339	418.48	0.13	0.00	1.19	0.39	0.39

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTAL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1092.84	158.45	207.08	48.6	70.22	13.	0.2	9.0	**	**	191.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.06(0.25)	1165.59	990.00	175.59	76.09
66	Keene 4 way	1.09(0.25)	1171.74	905.00	266.74	115.59
79	James Lane E	0.86(0.25)	1175.20	915.00	260.20	112.75
131	Drakes Ln EO	0.20(0.25)	1089.95	935.00	154.95	67.14
157	KY1267 EOL	0.34(0.25)	1089.95	840.00	249.95	108.31
173	Stirling Est	0.77(0.25)	1175.20	850.00	325.20	140.92
182	End of Parke	0.65(0.25)	1175.21	915.00	260.21	112.76
217	Bark Woods	0.65(0.25)	1090.04	960.00	130.04	56.35
233	Hagin EOL	0.30(0.25)	1089.94	940.00	149.94	64.97

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.47	137	52.01
173	140.92	200	52.01
178	128.56	O-RV-R2	52.01
I-RV-R1	128.56	287	56.34
53	126.51	217	56.35
60	125.64	15	57.89
171	122.08	96	58.28
170	122.08	18	58.50

179	121.94	295	59.38
181	121.42	93	59.78

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	27.48	199	0.00
3	6.21	441	0.00
296	5.96	391	0.00
9	4.10	201	0.00
20	3.44	162	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.15	199	0.00
9	4.10	441	0.00
38	4.10	391	0.00
20	3.44	201	0.00
11	3.24	162	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	109.30	73.68	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.09	86.70	25.74
RV-R1	PRV-1	93.20	ACTIVATED	128.56	93.20	13.24
RV-R2	PRV-1	52.00	CLOSED	85.57	52.01	0.00

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.49	
R-1	1092.84	KAWC Tank
TANK-A	-74.52	Old Tank
TANK-B	-382.71	New Tank - P
TANK-C	-506.99	Chinkapin Ta

NET SYSTEM INFLOW = 1093.33
 NET SYSTEM OUTFLOW = -964.22
 NET SYSTEM DEMAND = 129.11

TANK STATUS REPORT (time = 27.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	74.52	1165.24	12.24	41415.	75.5	FILLING	12.57
TANK-B(1)	382.71	1166.65	31.65	464899.	87.9	FILLING	32.04
TANK-C(1)	506.99	1164.11	31.11	658029.	81.9	FILLING	31.47

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 27.250

CHANGES FOR NEXT SIMULATION (time = 27.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 27.250
 Time: 27.500
 Time: 27.750
 Time: 28.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 28.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1142.000
 Time: 28.000

TIME FROM INITIATION OF EPS = 28.0000 HOURS (4.00AM, DAY: 2)

RESULTS OBTAINED AFTER 13 TRIALS: ACCURACY = 0.00005

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-243.26	1.61	0.18	1.55	1.13	1.02
3	208	107	1055.75	1.15	1.96	2.99	5.81	2.15
120	124	167	26.19	1.95	0.00	0.67	0.63	0.63
123	192	207	-194.31	1.36	0.04	1.24	0.69	0.67
169	5	1	658.24	3.77	0.25	1.87	0.96	0.90
281	96	167	37.06	2.74	0.00	0.95	0.92	0.92
284	167	34	-17.75	0.98	0.00	0.45	0.31	0.31
320	89	192	-188.64	1.75	0.03	1.20	0.85	0.83
328	239	107	-812.49	3.69	0.00	2.30	1.32	1.32
338	89	I-AV-2	271.49	0.01	0.00	0.77	0.17	0.17
341	291	167	-80.83	0.03	0.00	0.23	0.02	0.02
348	253	89	82.85	0.05	0.00	0.34	0.05	0.05
469	291	339	-344.15	0.92	0.00	0.98	0.27	0.27
473	338	339	389.08	0.11	0.00	1.10	0.34	0.34

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1055.75	151.48	204.43	53.0	72.28	14.	0.2	9.7	**	**	184.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12(0.50)	1166.69	990.00	176.69	76.57
66	Keene 4 way	2.18(0.50)	1170.92	905.00	265.92	115.23
79	James Lane E	1.72(0.50)	1173.58	915.00	258.58	112.05
131	Drakes Ln EO	0.41(0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68(0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54(0.50)	1173.59	850.00	323.59	140.22
182	End of Parke	1.30(0.50)	1173.60	915.00	258.60	112.06
217	Bark Woods	1.30(0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59(0.50)	1089.67	940.00	149.67	64.86

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	140.22	200	52.00
178	128.15	O-RV-R2	52.00
I-RV-R1	128.15	287	56.31
53	126.39	217	56.34
60	125.53	15	58.43
171	121.69	18	58.48
170	121.68	96	58.70
179	121.53	295	59.37
133	121.20	93	59.67

HL + ML / 1000

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	24.50	227	0.00
3	5.81	199	0.00
296	4.92	391	0.00
9	3.69	225	0.00
20	2.98	201	0.00

HL / 1000

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	4.26	227	0.00
38	3.69	199	0.00
9	3.69	391	0.00
20	2.98	225	0.00
11	2.83	201	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	108.90	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.31	86.70	33.61
RV-R1	PRV-1	93.20	ACTIVATED	128.15	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	85.87	52.00	19.97

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	1055.75	KAWC Tank
TANK-A	-60.52	Old Tank
TANK-B	-271.49	New Tank - P
TANK-C	-466.50	Chinkapin Ta

NET SYSTEM INFLOW = 1056.73
NET SYSTEM OUTFLOW = -798.51
NET SYSTEM DEMAND = 258.22

TANK STATUS REPORT (time = 28.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	60.52	1166.60	13.60	46038.	84.0	FILLING	13.87
TANK-B (1)	271.49	1168.19	33.19	487596.	92.2	FILLING	33.47
TANK-C (1)	466.50	1165.54	32.54	688371.	85.6	FILLING	32.87

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 28.250

CHANGES FOR NEXT SIMULATION (time = 28.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 28.250
Time: 28.500
Time: 28.750
Time: 29.000

CHANGES FOR NEXT SIMULATION (time = 29.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1133.000
Time: 29.000

TIME FROM INITIATION OF EPS = 29.0000 HOURS (5.00AM, DAY: 2)

RESULTS OBTAINED AFTER 12 TRIALS: ACCURACY = 0.00013

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-228.94	1.44	0.16	1.46	1.01	0.91
3	208	107	991.74	1.03	1.73	2.81	5.14	1.92
120	124	167	24.58	1.73	0.00	0.63	0.56	0.56
123	192	207	-178.88	1.17	0.03	1.14	0.59	0.58
169	5	1	613.61	3.31	0.22	1.74	0.84	0.79
281	96	167	35.02	2.47	0.00	0.89	0.83	0.83

284	167	34	-16.62	0.87	0.00	0.42	0.27	0.27
320	89	192	-173.54	1.50	0.03	1.11	0.73	0.71
328	239	107	-762.81	3.28	0.00	2.16	1.18	1.18
338	89	I-AV-2	237.56	0.00	0.00	0.67	0.14	0.14
341	291	167	-76.06	0.03	0.00	0.22	0.02	0.02
348	253	89	64.02	0.03	0.00	0.26	0.03	0.03
469	291	339	-321.49	0.81	0.00	0.91	0.24	0.24
473	338	339	363.51	0.10	0.00	1.03	0.30	0.30

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	991.74	142.54	202.38	59.8	75.36	15.	0.2	10.4	**	**	175.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12(0.50)	1167.86	990.00	177.86	77.07
66	Keene 4 way	2.18(0.50)	1171.50	905.00	266.50	115.48
79	James Lane E	1.72(0.50)	1173.79	915.00	258.79	112.14
131	Drakes Ln EO	0.41(0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68(0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54(0.50)	1173.80	850.00	323.80	140.31
182	End of Parke	1.30(0.50)	1173.81	915.00	258.81	112.15
217	Bark Woods	1.30(0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59(0.50)	1089.67	940.00	149.67	64.86

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	140.31	200	52.00
178	128.40	O-RV-R2	52.00
I-RV-R1	128.40	287	56.31
53	126.39	217	56.34
60	125.53	18	58.48
171	121.94	15	58.93
170	121.93	96	59.13
179	121.75	295	59.37
133	121.20	93	59.67

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	21.53	227	0.00
3	5.14	199	0.00
296	4.35	391	0.00
9	3.27	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	3.77	227	0.00
9	3.27	199	0.00
38	3.27	391	0.00
20	2.73	225	0.00
11	2.49	201	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	109.13	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	120.75	86.70	33.62
RV-R1	PRV-1	93.20	ACTIVATED	128.40	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	86.30	52.00	19.97

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	991.74	KAWC Tank
TANK-A	-60.79	Old Tank
TANK-B	-237.56	New Tank - P
TANK-C	-436.16	Chinkapin Ta

NET SYSTEM INFLOW = 992.72
 NET SYSTEM OUTFLOW = -734.51
 NET SYSTEM DEMAND = 258.22

T A N K S T A T U S R E P O R T (time = 29.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	60.79	1167.75	14.75	49911.	91.0	FILLING	15.02
TANK-B(1)	237.56	1169.31	34.31	503952.	95.3	FILLING	34.55
TANK-C(1)	436.16	1166.85	33.85	715895.	89.1	FILLING	34.15

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 29.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 29.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 29.250
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (closed) (time = 29.2500 hours)
 Time: 29.250
 Time: 29.500
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-2 HAS CHANGED STATUS (closed) (time = 29.5000 hours)
 Time: 29.500
 Time: 29.750
 Time: 30.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 30.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1128.000
 Time: 30.000

TIME FROM INITIATION OF EPS = 30.0000 HOURS (6.00AM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00028

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-255.09	1.76	0.19	1.63	1.24	1.12
3	208	107	1015.77	1.07	1.82	2.88	5.39	2.00
120	124	167	-22.14	1.43	0.00	0.57	0.46	0.46
123	192	207	-14.33	0.01	0.00	0.09	0.01	0.01
169	5	1	402.98	1.52	0.10	1.14	0.38	0.36
281	96	167	-11.28	0.30	0.00	0.29	0.10	0.10
284	167	34	17.58	0.96	0.00	0.45	0.30	0.30
320	89	192	-29.48	0.06	0.00	0.19	0.03	0.03
328	239	107	-760.68	3.27	0.00	2.16	1.17	1.17
338	89	I-AV-2	0.00	0.00	0.00	0.00	0.00	0.00
341	291	167	51.67	0.01	0.00	0.15	0.01	0.01
348	253	89	-29.48	0.01	0.00	0.12	0.01	0.01
469	291	339	-44.82	0.02	0.00	0.13	0.01	0.01
473	338	339	52.15	0.00	0.00	0.15	0.01	0.01

FOLLOWING ADDITIONAL PIPES ARE CLOSED:

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1015.77	137.52	194.86	57.3	74.28	15.	0.2	11.5	**	**	170.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47 (2.00)	1167.51	990.00	177.51	76.92
66	Keene 4 way	8.70 (2.00)	1163.93	905.00	258.93	112.20
79	James Lane E	6.88 (2.00)	1159.40	915.00	244.40	105.91
131	Drakes Ln EO	1.62 (2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70 (2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15 (2.00)	1159.56	850.00	309.56	134.14
182	End of Parke	5.20 (2.00)	1159.71	915.00	244.71	106.04
217	Bark Woods	5.20 (2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37 (2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	134.14	200	51.98
53	124.65	O-RV-R2	52.00
178	124.60	287	55.92
I-RV-R1	124.60	217	56.23
60	123.82	93	58.02
133	119.59	18	58.13
318	119.55	96	58.57
323	119.44	91	58.89
171	118.37	15	59.15

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	16.52	248	0.00
303	6.80	355	0.00
3	5.39	213	0.00
304	4.11	391	0.00
9	2.55	227	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	3.49	248	0.00
9	2.55	355	0.00
38	2.55	213	0.00
418	2.55	391	0.00
263	2.40	227	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.47	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	117.86	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	124.60	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	84.31	52.00	128.08

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	1015.77	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	0.00	New Tank - P
TANK-C	13.17	Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1032.86

Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE ELEMENT	STATUS	REFERENCE NODE	REFERENCE GRADE (ft)	NEXT SWITCH GRADE (ft)
AV-2	OPENED	89	1168.22	1133.00 1170.00

Time: 30.000

TIME FROM INITIATION OF EPS = 30.0000 HOURS (6.00AM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00029

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-253.64	1.74	0.19	1.62	1.23	1.10
3	208	107	1009.09	1.06	1.79	2.86	5.32	1.98
120	124	167	-17.46	0.92	0.00	0.45	0.30	0.30
123	192	207	14.26	0.01	0.00	0.09	0.01	0.01
169	5	1	407.15	1.55	0.10	1.15	0.39	0.37
281	96	167	10.46	0.26	0.00	0.27	0.09	0.09
284	167	34	14.25	0.65	0.00	0.36	0.20	0.20
320	89	192	19.39	0.03	0.00	0.12	0.01	0.01
328	239	107	-755.45	3.22	0.00	2.14	1.16	1.16
338	89	I-AV-2	-177.49	0.00	0.00	0.50	0.08	0.08
341	291	167	21.92	0.00	0.00	0.06	0.00	0.00
348	253	89	-158.10	0.17	0.00	0.65	0.16	0.16
469	291	339	-168.84	0.25	0.00	0.48	0.07	0.07
473	338	339	193.22	0.03	0.00	0.55	0.09	0.09

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1009.09	137.52	195.57	58.1	74.59	15.	0.2	11.7	**	**	170.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1167.85	990.00	177.85	77.07
66	Keene 4 way	8.70(2.00)	1164.96	905.00	259.96	112.65
79	James Lane E	6.88(2.00)	1160.55	915.00	245.55	106.41
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1160.72	850.00	310.72	134.64
182	End of Parke	5.20(2.00)	1160.86	915.00	245.86	106.54
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	134.64	200	51.98
178	125.05	O-RV-R2	52.00
I-RV-R1	125.05	287	55.92
53	124.65	217	56.23
60	123.82	93	58.02
133	119.59	18	58.13
318	119.55	96	58.83
323	119.44	91	58.89
171	118.82	295	59.24

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	16.25	355	0.00
303	6.80	248	0.00
3	5.32	213	0.00
304	4.11	391	0.00
418	2.52	227	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	3.49	355	0.00
418	2.52	248	0.00
9	2.51	213	0.00
38	2.51	391	0.00
263	2.40	227	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.93	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	118.17	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	125.05	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	84.62	52.00	128.08

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	1009.09	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	177.49	New Tank - P
TANK-C	-157.64	Chinkapin Ta

NET SYSTEM INFLOW = 1190.50
 NET SYSTEM OUTFLOW = -157.64
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 30.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B (1)	-177.49	1169.81	34.81	511357.	96.7	DRAINING	34.63
TANK-C (1)	157.64	1168.49	35.49	750636.	93.4	FILLING	35.60

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 30.250

CHANGES FOR NEXT SIMULATION (time = 30.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 30.250
 Time: 30.500
 Time: 30.750
 Time: 31.000

CHANGES FOR NEXT SIMULATION (time = 31.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1137.000
 Time: 31.000

TIME FROM INITIATION OF EPS = 31.0000 HOURS (7.00AM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00021

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-262.26	1.85	0.20	1.67	1.31	1.18
3	208	107	1062.78	1.17	1.99	3.01	5.88	2.18
120	124	167	-16.12	0.79	0.00	0.41	0.26	0.26

123	192	207	-65.32	0.18	0.00	0.42	0.09	0.09
169	5	1	472.82	2.04	0.13	1.34	0.52	0.49
281	96	167	6.67	0.11	0.00	0.17	0.04	0.04
284	167	34	13.07	0.55	0.00	0.33	0.17	0.17
320	89	192	-69.76	0.28	0.00	0.45	0.13	0.13
328	239	107	-800.52	3.59	0.00	2.27	1.29	1.29
338	89	I-AV-2	23.73	0.00	0.00	0.07	0.00	0.00
341	291	167	23.11	0.00	0.00	0.07	0.00	0.00
348	253	89	-46.03	0.02	0.00	0.19	0.02	0.02
469	291	339	-151.90	0.20	0.00	0.43	0.06	0.06
473	338	339	173.77	0.03	0.00	0.49	0.08	0.08

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1062.77	146.47	198.63	52.2	71.91	14.	0.2	12.4	**	**	179.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.41(1.75)	1168.29	990.00	178.29	77.26
66	Keene 4 way	7.62(1.75)	1166.18	905.00	261.18	113.18
79	James Lane E	6.02(1.75)	1163.22	915.00	248.22	107.56
131	Drakes Ln EO	1.42(1.75)	1086.80	935.00	151.80	65.78
157	KY1267 EOL	2.37(1.75)	1086.74	840.00	246.74	106.92
173	Stirling Est	5.38(1.75)	1163.34	850.00	313.34	135.78
182	End of Parke	4.55(1.75)	1163.46	915.00	248.46	107.67
217	Bark Woods	4.55(1.75)	1089.83	960.00	129.83	56.26
233	Hagin EOL	2.07(1.75)	1086.58	940.00	146.58	63.52

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.02	137	51.99
173	135.78	200	51.99
178	125.69	O-RV-R2	52.00
I-RV-R1	125.69	287	56.01
53	125.06	217	56.26
60	124.23	18	58.21
133	119.97	93	58.41
318	119.94	96	58.92
323	119.86	295	59.27
171	119.41	91	59.28

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	19.44	248	0.00

3	5.88	213	0.00
303	5.43	227	0.00
304	3.11	391	0.00
9	2.97	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	2.97	248	0.00
38	2.97	213	0.00
303	2.81	227	0.00
418	2.72	391	0.00
3	2.18	225	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	106.54	73.60	28.02
RV-2	PRV-1	86.70	ACTIVATED	118.81	86.70	75.11
RV-R1	PRV-1	93.20	ACTIVATED	125.69	93.20	58.77
RV-R2	PRV-1	52.00	ACTIVATED	85.04	52.00	110.95

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.43	
R-1	1062.77	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	-23.73	New Tank - P
TANK-C	-138.72	Chinkapin Ta

NET SYSTEM INFLOW = 1066.20
 NET SYSTEM OUTFLOW = -162.45
 NET SYSTEM DEMAND = 903.75

TANK STATUS REPORT (time = 31.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	23.73	1169.23	34.23	502799.	95.1	FILLING	34.25
TANK-C(1)	138.72	1168.84	35.84	758041.	94.3	FILLING	35.94

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 31.250

CHANGES FOR NEXT SIMULATION (time = 31.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 31.250
 Time: 31.500

Time: 31.750
 Time: 32.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 32.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 32.000

TIME FROM INITIATION OF EPS = 32.0000 HOURS (8.00AM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00018

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-263.95	1.87	0.21	1.68	1.32	1.19
3	208	107	1110.61	1.27	2.17	3.15	6.41	2.36
120	124	167	2.05	0.02	0.00	0.05	0.01	0.01
123	192	207	-154.17	0.89	0.02	0.98	0.45	0.44
169	5	1	598.81	3.16	0.21	1.70	0.80	0.75
281	96	167	17.30	0.67	0.00	0.44	0.22	0.22
284	167	34	0.58	0.00	0.00	0.01	0.00	0.00
320	89	192	-156.75	1.24	0.02	1.00	0.60	0.59
328	239	107	-846.66	3.98	0.00	2.40	1.43	1.43
338	89	I-AV-2	270.16	0.01	0.00	0.77	0.17	0.17
341	291	167	-18.41	0.00	0.00	0.05	0.00	0.00
348	253	89	113.41	0.09	0.00	0.46	0.08	0.08
469	291	339	-232.20	0.45	0.00	0.66	0.13	0.13
473	338	339	263.63	0.06	0.00	0.75	0.16	0.16

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
 98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1110.61	158.43	204.92	46.5	69.16	13.	0.2	13.2	**	**	191.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.26(1.10)	1169.25	990.00	179.25	77.67
66	Keene 4 way	4.79(1.10)	1169.73	905.00	264.73	114.71
79	James Lane E	3.78(1.10)	1170.49	915.00	255.49	110.71
131	Drakes Ln EO	0.89(1.10)	1088.65	935.00	153.65	66.58
157	KY1267 EOL	1.49(1.10)	1088.62	840.00	248.62	107.74

173	Stirling Est	3.38(1.10)	1170.54	850.00	320.54	138.90
182	End of Parke	2.86(1.10)	1170.59	915.00	255.59	110.76
217	Bark Woods	2.86(1.10)	1089.95	960.00	129.95	56.31
233	Hagin EOL	1.30(1.10)	1088.56	940.00	148.56	64.38

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.88	137	51.99
173	138.90	200	52.00
178	127.47	O-RV-R2	52.00
I-RV-R1	127.47	287	56.20
53	125.91	217	56.31
60	125.06	18	58.38
171	121.08	93	59.22
170	121.06	96	59.33
179	120.87	295	59.33
133	120.76	15	59.71

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	24.42	227	0.00
3	6.41	248	0.00
9	3.67	132	0.00
296	3.03	391	0.00
418	2.84	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	3.67	227	0.00
38	3.67	248	0.00
418	2.84	132	0.00
11	2.64	391	0.00
296	2.64	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	108.22	73.60	13.54
RV-2	PRV-1	86.70	ACTIVATED	120.36	86.70	51.75
RV-R1	PRV-1	93.20	ACTIVATED	127.47	93.20	40.71
RV-R2	PRV-1	52.00	ACTIVATED	86.15	52.00	65.51

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.16	
R-1	1110.61	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	-270.16	New Tank - P
TANK-C	-274.53	Chinkapin Ta

NET SYSTEM INFLOW = 1112.76

NET SYSTEM OUTFLOW = -544.69
NET SYSTEM DEMAND = 568.07

TANK STATUS REPORT (time = 32.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	270.16	1169.37	34.37	504866.	95.5	FILLING	34.65
TANK-C(1)	274.53	1169.20	36.20	765691.	95.3	FILLING	36.39

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 32.250

CHANGES FOR NEXT SIMULATION (time = 32.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 32.250
Switch Activated

PRESSURE SWITCHES ACTIVATED

REFERENCE PIPE AV-2 HAS CHANGED STATUS (closed) (time = 32.2500 hours)
Time: 32.250
Time: 32.500
Time: 32.750
Switch Activated

PRESSURE SWITCHES ACTIVATED

REFERENCE PIPE Pump-1 HAS CHANGED STATUS (closed) (time = 32.7500 hours)
Time: 32.750
Switch Activated

PRESSURE SWITCHES ACTIVATED

REFERENCE PIPE AV-2 HAS CHANGED STATUS (opened) (time = 32.7500 hours)
Time: 32.750
Time: 33.000

CHANGES FOR NEXT SIMULATION (time = 33.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1163.000
Time: 33.000

TIME FROM INITIATION OF EPS = 33.0000 HOURS (9.00AM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00001

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-12.92	0.01	0.00	0.08	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-15.92	0.77	0.00	0.41	0.25	0.25
123	192	207	73.90	0.23	0.01	0.47	0.12	0.11
169	5	1	-147.78	0.24	0.01	0.42	0.06	0.06
281	96	167	-18.05	0.72	0.00	0.46	0.24	0.24
284	167	34	11.96	0.47	0.00	0.31	0.15	0.15
320	89	192	68.07	0.26	0.00	0.43	0.13	0.13
328	239	107	12.92	0.00	0.00	0.04	0.00	0.00
338	89	I-AV-2	-154.25	0.00	0.00	0.44	0.06	0.06
341	291	167	46.19	0.01	0.00	0.13	0.01	0.01
348	253	89	-86.19	0.05	0.00	0.35	0.05	0.05
469	291	339	160.88	0.23	0.00	0.46	0.07	0.07
473	338	339	-180.29	0.03	0.00	0.51	0.08	0.08

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1169.41	990.00	179.41	77.74
66	Keene 4 way	3.26(0.75)	1167.93	905.00	262.93	113.93
79	James Lane E	2.58(0.75)	1166.84	915.00	251.84	109.13
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1166.87	850.00	316.87	137.31
182	End of Parke	1.95(0.75)	1166.89	915.00	251.89	109.15
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	137.31	200	52.00
178	126.78	O-RV-R2	52.00
I-RV-R1	126.78	287	56.27
53	126.23	217	56.33
60	125.37	18	58.45
133	121.05	96	59.00
318	121.04	295	59.36

323	121.03	93	59.51
I-RV-2	120.40	15	59.63

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	187	0.00
20	0.75	227	0.00
470	0.67	391	0.00
296	0.64	225	0.00
304	0.43	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	0.94	187	0.00
20	0.75	227	0.00
296	0.57	391	0.00
263	0.39	225	0.00
242	0.30	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	107.42	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	120.40	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	126.78	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	86.02	52.00	40.02

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	154.25	New Tank - P
TANK-C	231.60	Chinkapin Ta

NET SYSTEM INFLOW = 387.32
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 33.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B(1)	-154.25	1169.38	34.38	504945.	95.5	DRAINING	34.22
TANK-C(1)	-231.60	1169.93	36.93	781051.	97.2	DRAINING	36.76

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 33.250

CHANGES FOR NEXT SIMULATION (time = 33.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 33.250
 Time: 33.500
 Time: 33.750
 Time: 34.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 34.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1161.000
 Time: 34.000

TIME FROM INITIATION OF EPS = 34.0000 HOURS (10.00AM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00002

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-12.92	0.01	0.00	0.08	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-15.81	0.76	0.00	0.40	0.25	0.25
123	192	207	-74.12	0.23	0.01	0.47	0.12	0.11
169	5	1	-147.73	0.24	0.01	0.42	0.06	0.06
281	96	167	-17.88	0.71	0.00	0.46	0.24	0.24
284	167	34	11.88	0.47	0.00	0.30	0.15	0.15
320	89	192	68.42	0.27	0.00	0.44	0.13	0.13
328	239	107	12.92	0.00	0.00	0.04	0.00	0.00
338	89	I-AV-2	-156.15	0.00	0.00	0.44	0.06	0.06
341	291	167	45.82	0.01	0.00	0.13	0.01	0.01
348	253	89	-87.72	0.06	0.00	0.36	0.05	0.05
469	291	339	159.52	0.22	0.00	0.45	0.06	0.06
473	338	339	-178.76	0.03	0.00	0.51	0.08	0.08

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1168.76	990.00	178.76	77.46
66	Keene 4 way	3.26(0.75)	1167.29	905.00	262.29	113.66
79	James Lane E	2.58(0.75)	1166.20	915.00	251.20	108.85
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1166.23	850.00	316.23	137.03
182	End of Parke	1.95(0.75)	1166.25	915.00	251.25	108.88
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	137.03	200	52.00
178	126.50	O-RV-R2	52.00
I-RV-R1	126.50	287	56.27
53	126.23	217	56.33
60	125.37	18	58.45
133	121.05	96	58.72
318	121.04	15	59.35
323	121.03	295	59.36
I-RV-2	120.12	93	59.51

HL + ML / 1000

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	187	0.00
20	0.73	227	0.00
470	0.65	391	0.00
296	0.64	225	0.00
304	0.43	103	0.00

HL / 1000

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	0.94	187	0.00
20	0.73	227	0.00
296	0.56	391	0.00
263	0.39	225	0.00
242	0.30	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	107.15	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	120.12	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	126.50	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	85.75	52.00	40.02

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE	FLOWRATE	NODE
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NAME	(gpm)	TITLE
FGN-BB	1.47	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	156.15	New Tank - P
TANK-C	229.70	Chinkapin Ta

NET SYSTEM INFLOW = 387.32
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 34.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	0.00	1168.02	15.02	50823.	92.7		15.02
TANK-B (1)	-156.15	1168.74	33.74	495641.	93.7	DRAINING	33.58
TANK-C (1)	-229.70	1169.27	36.27	767204.	95.4	DRAINING	36.11

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 34.250

CHANGES FOR NEXT SIMULATION (time = 34.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 34.250
Time: 34.500
Time: 34.750
Time: 35.000

CHANGES FOR NEXT SIMULATION (time = 35.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1158.000
Time: 35.000

TIME FROM INITIATION OF EPS = 35.0000 HOURS (11.00AM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00024

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-25.86	0.03	0.00	0.17	0.02	0.02
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-27.65	2.15	0.00	0.71	0.69	0.69
123	192	207	156.87	0.91	0.02	1.00	0.47	0.45
169	5	1	-294.63	0.85	0.05	0.84	0.21	0.20
281	96	167	-29.97	1.85	0.00	0.77	0.62	0.62
284	167	34	20.97	1.33	0.01	0.54	0.42	0.42

320	89	192	150.87	1.16	0.02	0.96	0.56	0.55
328	239	107	25.86	0.01	0.00	0.07	0.00	0.00
338	89	I-AV-2	-376.91	0.01	0.00	1.07	0.32	0.32
341	291	167	79.11	0.03	0.00	0.22	0.02	0.02
348	253	89	-226.04	0.33	0.00	0.92	0.30	0.30
469	291	339	272.92	0.60	0.00	0.77	0.18	0.18
473	338	339	-305.45	0.07	0.00	0.87	0.22	0.22

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.35(1.50)	1167.15	990.00	177.15	76.77
66	Keene 4 way	6.53(1.50)	1162.25	905.00	257.25	111.48
79	James Lane E	5.16(1.50)	1158.27	915.00	243.27	105.42
131	Drakes Ln EO	1.22(1.50)	1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03(1.50)	1087.55	840.00	247.55	107.27
173	Stirling Est	4.61(1.50)	1158.36	850.00	308.36	133.62
182	End of Parke	3.90(1.50)	1158.45	915.00	243.45	105.49
217	Bark Woods	3.90(1.50)	1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77(1.50)	1087.44	940.00	147.44	63.89

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	133.62	200	51.99
53	125.43	O-RV-R2	52.00
60	124.59	287	56.10
178	124.09	217	56.28
I-RV-R1	124.09	96	57.91
133	120.31	238	57.92
318	120.29	18	58.28
323	120.23	93	58.76
I-RV-2	118.19	15	58.83

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	4.23	187	0.00
304	2.24	248	0.00
470	1.91	227	0.00
296	1.89	391	0.00
20	1.82	103	0.00

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	2.21	187	0.00
20	1.82	248	0.00
296	1.65	227	0.00
263	1.41	391	0.00
242	1.09	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.78	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	118.19	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	124.09	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	84.22	52.00	93.67

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	376.91	New Tank - P
TANK-C	394.79	Chinkapin Ta

NET SYSTEM INFLOW = 774.65
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 774.65

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 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE ELEMENT	STATUS	REFERENCE NODE	REFERENCE GRADE (ft)	NEXT SWITCH GRADE (ft)
AV-1	OPENED	15	1167.75	1133.00 1168.00

Time: 35.000

TIME FROM INITIATION OF EPS = 35.0000 HOURS (11.00AM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00024

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-25.86	0.03	0.00	0.17	0.02	0.02
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-27.36	2.11	0.00	0.70	0.68	0.68
123	192	207	155.78	0.90	0.02	0.99	0.46	0.45
169	5	1	-294.89	0.85	0.05	0.84	0.21	0.20
281	96	167	-29.46	1.79	0.00	0.75	0.60	0.60
284	167	34	20.77	1.31	0.01	0.53	0.41	0.41
320	89	192	149.02	1.13	0.02	0.95	0.55	0.54

328	239	107	25.86	0.01	0.00	0.07	0.00	0.00
338	89	I-AV-2	-369.10	0.01	0.00	1.05	0.31	0.31
341	291	167	78.09	0.03	0.00	0.22	0.02	0.02
348	253	89	-220.08	0.31	0.00	0.90	0.29	0.29
469	291	339	245.22	0.49	0.00	0.70	0.14	0.14
473	338	339	-274.18	0.06	0.00	0.78	0.18	0.18

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.35	(1.50)1167.19	990.00	177.19	76.78
66	Keene 4 way	6.53	(1.50)1162.32	905.00	257.32	111.51
79	James Lane E	5.16	(1.50)1158.34	915.00	243.34	105.45
131	Drakes Ln EO	1.22	(1.50)1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03	(1.50)1087.55	840.00	247.55	107.27
173	Stirling Est	4.61	(1.50)1158.43	850.00	308.43	133.65
182	End of Parke	3.90	(1.50)1158.52	915.00	243.52	105.53
217	Bark Woods	3.90	(1.50)1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77	(1.50)1087.44	940.00	147.44	63.89

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	133.65	200	51.99
53	125.43	O-RV-R2	52.00
60	124.59	287	56.10
178	124.12	217	56.28
I-RV-R1	124.12	96	57.94
133	120.31	238	57.95
318	120.29	18	58.28
323	120.23	93	58.76
I-RV-2	118.22	15	58.90

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	4.23	187	0.00
304	2.24	248	0.00
20	1.96	227	0.00
296	1.95	391	0.00
470	1.61	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	2.21	187	0.00
20	1.96	248	0.00
296	1.70	227	0.00
263	1.41	391	0.00
242	1.09	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.81	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	118.22	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	124.12	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	84.25	52.00	93.67

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	
R-1	0.00	KAWC Tank
TANK-A	40.10	Old Tank
TANK-B	369.10	New Tank - P
TANK-C	362.51	Chinkapin Ta

NET SYSTEM INFLOW = 774.65
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 774.65

TANK STATUS REPORT (time = 35.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-40.10	1168.02	15.02	50823.	92.7	DRAINING	14.84
TANK-B(1)	-369.10	1168.10	33.10	486247.	92.0	DRAINING	32.73
TANK-C(1)	-362.51	1168.62	35.62	753447.	93.7	DRAINING	35.36

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 35.250

CHANGES FOR NEXT SIMULATION (time = 35.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 35.250
 Time: 35.500
 Time: 35.750
 Time: 36.000

CHANGES FOR NEXT SIMULATION (time = 36.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1156.000
Time: 36.000

TIME FROM INITIATION OF EPS = 36.0000 HOURS (12.00AM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00034

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-18.94	0.01	0.00	0.12	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-22.57	1.48	0.00	0.58	0.48	0.48
123	192	207	108.97	0.47	0.01	0.70	0.24	0.23
169	5	1	-217.11	0.48	0.03	0.62	0.12	0.11
281	96	167	-25.35	1.36	0.00	0.65	0.45	0.45
284	167	34	16.99	0.90	0.00	0.43	0.28	0.28
320	89	192	100.61	0.55	0.01	0.64	0.26	0.26
328	239	107	18.94	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-229.55	0.00	0.00	0.65	0.13	0.13
341	291	167	65.27	0.02	0.00	0.19	0.01	0.01
348	253	89	-128.93	0.12	0.00	0.53	0.11	0.11
469	291	339	210.37	0.37	0.00	0.60	0.11	0.11
473	338	339	-235.55	0.04	0.00	0.67	0.13	0.13

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.26(1.10)	1166.61	990.00	176.61	76.53
66	Keene 4 way	4.79(1.10)	1163.66	905.00	258.66	112.09
79	James Lane E	3.78(1.10)	1161.43	915.00	246.43	106.79
131	Drakes Ln EO	0.89(1.10)	1088.65	935.00	153.65	66.58
157	KY1267 EOL	1.49(1.10)	1088.62	840.00	248.62	107.74
173	Stirling Est	3.38(1.10)	1161.48	850.00	311.48	134.98
182	End of Parke	2.86(1.10)	1161.53	915.00	246.53	106.83
217	Bark Woods	2.86(1.10)	1089.95	960.00	129.95	56.31
233	Hagin EOL	1.30(1.10)	1088.56	940.00	148.56	64.38

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.88	137	51.99
173	134.98	200	52.00
53	125.91	O-RV-R2	52.00
60	125.06	287	56.20
178	124.84	217	56.31
I-RV-R1	124.84	96	57.70
133	120.76	238	58.27
318	120.74	18	58.38
323	120.71	15	58.53
I-RV-2	118.66	93	59.22

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.68	187	0.00
20	1.51	227	0.00
296	1.30	248	0.00
470	1.17	391	0.00
304	1.12	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.51	187	0.00
303	1.42	227	0.00
296	1.14	248	0.00
263	0.79	391	0.00
242	0.62	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.51	73.60	13.54
RV-2	PRV-1	86.70	ACTIVATED	118.66	86.70	51.75
RV-R1	PRV-1	93.20	ACTIVATED	124.84	93.20	40.71
RV-R2	PRV-1	52.00	ACTIVATED	84.44	52.00	65.51

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.16	
R-1	0.00	KAWC Tank
TANK-A	28.04	Old Tank
TANK-B	229.55	New Tank - P
TANK-C	308.33	Chinkapin Ta

NET SYSTEM INFLOW = 568.07
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 568.07

T A N K S T A T U S R E P O R T (time = 36.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-28.04	1167.11	14.11	47757.	87.1	DRAINING	13.99
TANK-B(1)	-229.55	1166.64	31.64	464727.	87.9	DRAINING	31.40
TANK-C(1)	-308.33	1167.59	34.59	731731.	91.0	DRAINING	34.38

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 36.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 36.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 36.250
Time: 36.500
Time: 36.750
Time: 37.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 37.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
Time: 37.000

TIME FROM INITIATION OF EPS = 37.0000 HOURS (1.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00040

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-17.20	0.01	0.00	0.11	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-21.39	1.34	0.00	0.55	0.43	0.43
123	192	207	96.85	0.37	0.01	0.62	0.19	0.19
169	5	1	-197.73	0.41	0.02	0.56	0.10	0.10
281	96	167	-24.32	1.26	0.00	0.62	0.42	0.42
284	167	34	16.06	0.81	0.00	0.41	0.26	0.25
320	89	192	87.90	0.42	0.01	0.56	0.21	0.20
328	239	107	17.20	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-189.64	0.00	0.00	0.54	0.09	0.09
341	291	167	62.10	0.02	0.00	0.18	0.01	0.01
348	253	89	-101.74	0.07	0.00	0.42	0.07	0.07
469	291	339	191.96	0.31	0.00	0.54	0.09	0.09
473	338	339	-214.93	0.04	0.00	0.61	0.11	0.11

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.24	1165.85	990.00	175.85	76.20
66	Keene 4 way	4.35	1163.32	905.00	258.32	111.94
79	James Lane E	3.44	1161.45	915.00	246.45	106.80
131	Drakes Ln EO	0.81	1088.87	935.00	153.87	66.68
157	KY1267 EOL	1.35	1088.85	840.00	248.85	107.83
173	Stirling Est	3.07	1161.50	850.00	311.50	134.98
182	End of Parke	2.60	1161.54	915.00	246.54	106.83
217	Bark Woods	2.60	1089.97	960.00	129.97	56.32
233	Hagin EOL	1.18	1088.79	940.00	148.79	64.48

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.98	137	52.00
173	134.98	200	52.00
53	126.01	O-RV-R2	52.00
60	125.16	287	56.23
178	124.72	217	56.32
I-RV-R1	124.72	96	57.38
133	120.85	238	58.06
318	120.84	15	58.19
323	120.81	18	58.40
I-RV-2	118.48	93	59.31

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.37	187	0.00
20	1.48	227	0.00
296	1.19	248	0.00
470	0.99	391	0.00
304	0.89	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.48	187	0.00
303	1.26	227	0.00
296	1.04	248	0.00
263	0.67	391	0.00
242	0.52	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.38	73.60	11.03
RV-2	PRV-1	86.70	ACTIVATED	118.48	86.70	48.38
RV-R1	PRV-1	93.20	ACTIVATED	124.72	93.20	38.18
RV-R2	PRV-1	52.00	ACTIVATED	84.21	52.00	58.33

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.96	
R-1	0.00	KAWC Tank
TANK-A	40.97	Old Tank
TANK-B	189.64	New Tank - P
TANK-C	283.86	Chinkapin Ta

NET SYSTEM INFLOW = 516.43
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 516.43

T A N K S T A T U S R E P O R T (time = 37.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-40.97	1166.40	13.40	45354.	82.7	DRAINING	13.22
TANK-B (1)	-189.64	1165.72	30.72	451211.	85.3	DRAINING	30.52
TANK-C (1)	-283.86	1166.74	33.74	713694.	88.8	DRAINING	33.54

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 37.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 37.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 37.250
 Time: 37.500
 Time: 37.750
 Time: 38.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 38.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
 Time: 38.000

TIME FROM INITIATION OF EPS = 38.0000 HOURS (2.00PM, DAY: 2)

RESULTS OBTAINED AFTER 12 TRIALS: ACCURACY = 0.00004

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-8.53	0.00	0.00	0.05	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-16.40	0.82	0.00	0.42	0.26	0.26
123	192	207	38.59	0.07	0.00	0.25	0.03	0.03
169	5	1	-101.62	0.12	0.01	0.29	0.03	0.03
281	96	167	-19.67	0.85	0.00	0.50	0.28	0.28
284	167	34	12.03	0.48	0.00	0.31	0.15	0.15
320	89	192	29.42	0.06	0.00	0.19	0.03	0.03
328	239	107	8.53	0.00	0.00	0.02	0.00	0.00
338	89	I-AV-2	-11.56	0.00	0.00	0.03	0.00	0.00
341	291	167	48.26	0.01	0.00	0.14	0.01	0.01
348	253	89	17.87	0.00	0.00	0.07	0.00	0.00
469	291	339	159.23	0.22	0.00	0.45	0.06	0.06
473	338	339	-178.85	0.03	0.00	0.51	0.08	0.08

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12(0.50)	1165.42	990.00	175.42	76.01
66	Keene 4 way	2.18(0.50)	1164.44	905.00	259.44	112.42
79	James Lane E	1.72(0.50)	1163.94	915.00	248.94	107.87
131	Drakes Ln EO	0.41(0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68(0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54(0.50)	1163.95	850.00	313.95	136.04
182	End of Parke	1.30(0.50)	1163.96	915.00	248.96	107.88
217	Bark Woods	1.30(0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59(0.50)	1089.67	940.00	149.67	64.86

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	136.04	200	52.00
53	126.39	O-RV-R2	52.00
60	125.53	287	56.31
178	125.33	217	56.34
I-RV-R1	125.33	96	57.22

133	121.20	15	57.90
318	121.20	238	58.34
323	121.19	18	58.48
171	118.87	192	59.32

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.00	264	0.00
20	0.98	227	0.00
470	0.66	187	0.00
296	0.62	199	0.00
281	0.28	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	0.98	264	0.00
303	0.55	227	0.00
296	0.55	187	0.00
281	0.28	199	0.00
467	0.27	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	105.92	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	118.83	86.70	33.62
RV-R1	PRV-1	93.20	ACTIVATED	125.33	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	84.38	52.00	19.97

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	0.00	KAWC Tank
TANK-A	15.15	Old Tank
TANK-B	11.56	New Tank - P
TANK-C	230.53	Chinkapin Ta

NET SYSTEM INFLOW = 258.22
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 258.22

T A N K S T A T U S R E P O R T (time = 38.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-15.15	1165.64	12.64	42769.	78.0	DRAINING	12.57
TANK-B(1)	-11.56	1164.94	29.94	439819.	83.2	DRAINING	29.93
TANK-C(1)	-230.53	1165.94	32.94	696804.	86.7	DRAINING	32.78

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 38.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 38.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 38.250
 Time: 38.500
 Time: 38.750
 Time: 39.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 39.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 39.000

TIME FROM INITIATION OF EPS = 39.0000 HOURS (3.00PM, DAY: 2)

RESULTS OBTAINED AFTER 10 TRIALS: ACCURACY = 0.00001

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-12.91	0.01	0.00	0.08	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-15.73	0.76	0.00	0.40	0.24	0.24
123	192	207	72.83	0.22	0.01	0.46	0.11	0.11
169	5	1	-148.01	0.24	0.01	0.42	0.06	0.06
281	96	167	-17.77	0.70	0.00	0.45	0.23	0.23
284	167	34	11.83	0.46	0.00	0.30	0.14	0.14
320	89	192	66.33	0.25	0.00	0.42	0.12	0.12
328	239	107	12.91	0.00	0.00	0.04	0.00	0.00
338	89	I-AV-2	-145.18	0.00	0.00	0.41	0.05	0.05
341	291	167	45.58	0.01	0.00	0.13	0.01	0.01
348	253	89	-78.85	0.05	0.00	0.32	0.04	0.04
469	291	339	135.64	0.16	0.00	0.38	0.05	0.05
473	338	339	-151.80	0.02	0.00	0.43	0.06	0.06

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18 (0.75)	1164.87	990.00	174.87	75.78
66	Keene 4 way	3.26 (0.75)	1163.40	905.00	258.40	111.97
79	James Lane E	2.58 (0.75)	1162.31	915.00	247.31	107.17
131	Drakes Ln EO	0.61 (0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01 (0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31 (0.75)	1162.34	850.00	312.34	135.35
182	End of Parke	1.95 (0.75)	1162.37	915.00	247.37	107.19
217	Bark Woods	1.95 (0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89 (0.75)	1089.29	940.00	149.29	64.69

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	135.35	200	52.00
53	126.23	O-RV-R2	52.00
60	125.37	287	56.27
178	124.81	217	56.33
I-RV-R1	124.81	96	57.04
133	121.05	15	57.69
318	121.04	238	57.98
323	121.03	18	58.45
I-RV-2	118.44	192	59.13

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	187	0.00
20	0.85	227	0.00
296	0.68	391	0.00
470	0.51	225	0.00
304	0.43	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	0.94	187	0.00
20	0.85	227	0.00
296	0.60	391	0.00
263	0.39	225	0.00
242	0.30	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.46	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	118.44	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	124.81	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	84.06	52.00	40.02

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	0.00	KAWC Tank
TANK-A	38.17	Old Tank
TANK-B	145.18	New Tank - P
TANK-C	202.50	Chinkapin Ta

NET SYSTEM INFLOW = 387.32
NET SYSTEM OUTFLOW = 0.00
NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 39.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-38.17	1165.23	12.23	41384.	75.5	DRAINING	12.06
TANK-B (1)	-145.18	1164.81	29.81	437940.	82.8	DRAINING	29.67
TANK-C (1)	-202.50	1165.37	32.37	684634.	85.2	DRAINING	32.22

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 39.250

CHANGES FOR NEXT SIMULATION (time = 39.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 39.250
Time: 39.500
Time: 39.750
Time: 40.000

CHANGES FOR NEXT SIMULATION (time = 40.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1144.000
Time: 40.000

TIME FROM INITIATION OF EPS = 40.0000 HOURS (4.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00030

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-21.53	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-23.23	1.56	0.00	0.59	0.50	0.50
123	192	207	127.61	0.62	0.02	0.81	0.32	0.31
169	5	1	-246.12	0.61	0.04	0.70	0.15	0.15

281	96	167	-25.15	1.34	0.00	0.64	0.45	0.45
284	167	34	17.61	0.96	0.00	0.45	0.30	0.30
320	89	192	120.54	0.76	0.01	0.77	0.37	0.36
328	239	107	21.53	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-291.49	0.01	0.00	0.83	0.20	0.20
341	291	167	66.40	0.02	0.00	0.19	0.01	0.01
348	253	89	-170.95	0.20	0.00	0.70	0.18	0.18
469	291	339	190.42	0.31	0.00	0.54	0.09	0.09
473	338	339	-212.76	0.04	0.00	0.60	0.11	0.11

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1163.74	990.00	173.74	75.29
66	Keene 4 way	5.44(1.25)	1160.23	905.00	255.23	110.60
79	James Lane E	4.30(1.25)	1157.40	915.00	242.40	105.04
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1157.46	850.00	307.46	133.23
182	End of Parke	3.25(1.25)	1157.53	915.00	242.53	105.09
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	133.23	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	287	56.17
178	123.31	217	56.30
I-RV-R1	123.31	96	56.50
133	120.60	238	56.87
318	120.59	15	57.35
323	120.54	18	58.35
I-RV-2	117.22	192	58.50

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	231	0.00
20	1.60	187	0.00
304	1.50	248	0.00
296	1.48	227	0.00

263 1.02 391 0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	1.69	231	0.00
20	1.60	187	0.00
296	1.30	248	0.00
263	1.01	227	0.00
242	0.78	391	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	103.98	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	117.22	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	123.31	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	83.08	52.00	76.16

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	63.91	Old Tank
TANK-B	291.49	New Tank - P
TANK-C	287.70	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 40.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-63.91	1164.61	11.61	39288.	71.7	DRAINING	11.33
TANK-B(1)	-291.49	1164.22	29.22	429216.	81.2	DRAINING	28.92
TANK-C(1)	-287.70	1164.78	31.78	672302.	83.6	DRAINING	31.58

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 40.250

CHANGES FOR NEXT SIMULATION (time = 40.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 40.250
 Time: 40.500
 Time: 40.750
 Time: 41.000

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1142.000
Time: 41.000

TIME FROM INITIATION OF EPS = 41.0000 HOURS (5.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-34.47	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-36.25	3.56	0.00	0.93	1.15	1.15
123	192	207	206.42	1.52	0.04	1.32	0.77	0.75
169	5	1	-393.60	1.45	0.09	1.12	0.37	0.35
281	96	167	-38.88	2.99	0.00	0.99	1.00	1.00
284	167	34	27.53	2.20	0.01	0.70	0.69	0.69
320	89	192	196.50	1.88	0.04	1.25	0.91	0.90
328	239	107	34.47	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-482.27	0.02	0.00	1.37	0.50	0.50
341	291	167	103.33	0.05	0.01	0.29	0.03	0.03
348	253	89	-285.77	0.51	0.00	1.17	0.46	0.46
469	291	339	294.86	0.69	0.00	0.84	0.20	0.20
473	338	339	-329.33	0.08	0.00	0.93	0.25	0.25

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1161.54	990.00	171.54	74.33
66	Keene 4 way	8.70(2.00)	1153.28	905.00	248.28	107.59
79	James Lane E	6.88(2.00)	1146.47	915.00	231.47	100.30
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KYL267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1146.63	850.00	296.63	128.54
182	End of Parke	5.20(2.00)	1146.77	915.00	231.77	100.44
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	128.54	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	238	54.45
178	119.97	96	55.36
I-RV-R1	119.97	287	55.92
133	119.59	217	56.23
318	119.55	15	56.74
323	119.44	192	57.18
276	116.78	16	57.55

HL + ML / 1000

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00
304	4.11	248	0.00
20	3.57	213	0.00
296	3.42	391	0.00
263	2.45	227	0.00

HL / 1000

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	3.57	187	0.00
303	3.49	248	0.00
296	2.97	213	0.00
263	2.40	391	0.00
242	1.86	227	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	100.71	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	114.54	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	119.97	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	80.97	52.00	128.08

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	100.36	Old Tank
TANK-B	482.27	New Tank - P
TANK-C	446.32	Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 41.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-100.36	1163.58	10.58	35818.	65.3	DRAINING	10.14
TANK-B (1)	-482.27	1163.06	28.06	412107.	77.9	DRAINING	27.56
TANK-C (1)	-446.32	1163.93	30.93	654296.	81.4	DRAINING	30.62

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 41.250

CHANGES FOR NEXT SIMULATION (time = 41.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 41.250
 Time: 41.500
 Time: 41.750
 Time: 42.000

CHANGES FOR NEXT SIMULATION (time = 42.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
 Time: 42.000

TIME FROM INITIATION OF EPS = 42.0000 HOURS (6.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-34.45	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-37.75	3.83	0.00	0.96	1.24	1.24
123	192	207	203.68	1.48	0.04	1.30	0.76	0.74
169	5	1	-394.12	1.46	0.09	1.12	0.37	0.35
281	96	167	-41.18	3.33	0.00	1.05	1.11	1.11
284	167	34	28.58	2.36	0.01	0.73	0.74	0.74
320	89	192	191.93	1.80	0.03	1.22	0.88	0.86
328	239	107	34.45	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-461.05	0.01	0.00	1.31	0.46	0.46
341	291	167	108.18	0.05	0.01	0.31	0.04	0.03
348	253	89	-269.12	0.45	0.00	1.10	0.42	0.42
469	291	339	321.83	0.82	0.00	0.91	0.24	0.24
473	338	339	-359.77	0.10	0.00	1.02	0.29	0.29

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47 (2.00)	1160.05	990.00	170.05	73.69
66	Keene 4 way	8.70 (2.00)	1151.59	905.00	246.59	106.85
79	James Lane E	6.88 (2.00)	1144.77	915.00	229.77	99.57
131	Drakes Ln EO	1.62 (2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70 (2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15 (2.00)	1144.93	850.00	294.93	127.80
182	End of Parke	5.20 (2.00)	1145.08	915.00	230.08	99.70
217	Bark Woods	5.20 (2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37 (2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	127.80	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	238	53.72
133	119.59	96	54.64
318	119.55	287	55.92
323	119.44	15	56.09
178	119.24	217	56.23
I-RV-R1	119.24	192	56.42
276	116.78	16	56.82

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00
304	4.11	248	0.00
20	3.89	213	0.00
296	3.60	391	0.00
470	2.82	231	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	3.89	187	0.00
303	3.49	248	0.00
296	3.13	213	0.00
263	2.40	391	0.00
242	1.86	231	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	99.97	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	113.81	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	119.24	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	80.24	52.00	128.08

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	86.28	Old Tank
TANK-B	461.05	New Tank - P
TANK-C	481.61	Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 42.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-86.28	1161.93	8.93	30214.	55.1	DRAINING	8.55
TANK-B (1)	-461.05	1161.12	26.12	383666.	72.6	DRAINING	25.65
TANK-C (1)	-481.61	1162.62	29.62	626605.	78.0	DRAINING	29.28

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 42.250

CHANGES FOR NEXT SIMULATION (time = 42.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 42.250
 Time: 42.500
 Time: 42.750
 Time: 43.000

CHANGES FOR NEXT SIMULATION (time = 43.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1112.000
 Time: 43.000

TIME FROM INITIATION OF EPS = 43.0000 HOURS (7.00PM, DAY: 2)

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-25.81	0.03	0.00	0.16	0.02	0.02
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-31.58	2.75	0.00	0.81	0.89	0.89
123	192	207	146.84	0.81	0.02	0.94	0.41	0.40
169	5	1	-296.61	0.86	0.05	0.84	0.22	0.20
281	96	167	-35.78	2.57	0.00	0.91	0.86	0.86
284	167	34	23.73	1.67	0.01	0.61	0.53	0.52
320	89	192	134.23	0.93	0.02	0.86	0.45	0.44
328	239	107	25.81	0.01	0.00	0.07	0.00	0.00
338	89	I-AV-2	-296.35	0.01	0.00	0.84	0.20	0.20
341	291	167	91.60	0.04	0.00	0.26	0.03	0.02
348	253	89	-162.12	0.18	0.00	0.66	0.16	0.16
469	291	339	289.97	0.67	0.00	0.82	0.20	0.20
473	338	339	-324.69	0.08	0.00	0.92	0.24	0.24

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.35(1.50)	1159.40	990.00	169.40	73.41
66	Keene 4 way	6.53(1.50)	1154.08	905.00	249.08	107.93
79	James Lane E	5.16(1.50)	1150.09	915.00	235.09	101.87
131	Drakes Ln EO	1.22(1.50)	1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03(1.50)	1087.55	840.00	247.55	107.27
173	Stirling Est	4.61(1.50)	1150.18	850.00	300.18	130.08
182	End of Parke	3.90(1.50)	1150.27	915.00	235.27	101.95
217	Bark Woods	3.90(1.50)	1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77(1.50)	1087.44	940.00	147.44	63.89

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	130.08	200	51.99
53	125.43	O-RV-R2	52.00

60	124.59	209	52.87
178	120.55	I-Pump-1	52.87
I-RV-R1	120.55	I-Pump-2	52.87
133	120.31	238	54.38
318	120.29	96	54.39
323	120.23	R-1	55.03
276	116.86	15	55.58

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	4.23	187	0.00
20	2.94	248	0.00
296	2.44	227	0.00
304	2.24	391	0.00
470	2.22	213	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.94	187	0.00
303	2.21	248	0.00
296	2.13	227	0.00
263	1.41	391	0.00
242	1.09	213	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.24	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	114.66	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	120.55	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	80.69	52.00	93.67

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	
R-1	0.00	KAWC Tank
TANK-A	48.83	Old Tank
TANK-B	296.35	New Tank - P
TANK-C	426.53	Chinkapin Ta

NET SYSTEM INFLOW = 774.64
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 774.65

TANK STATUS REPORT (time = 43.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-48.83	1160.42	7.42	25106.	45.8	DRAINING	7.20
TANK-B(1)	-296.35	1159.26	24.26	356411.	67.4	DRAINING	23.96
TANK-C(1)	-426.53	1161.24	28.24	597231.	74.3	DRAINING	27.93

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 43.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 43.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 43.250
Time: 43.500
Time: 43.750
Time: 44.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 44.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1112.000
Time: 44.000

TIME FROM INITIATION OF EPS = 44.0000 HOURS (8.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00029

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-21.49	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-28.35	2.25	0.00	0.72	0.73	0.73
123	192	207	118.28	0.54	0.01	0.75	0.28	0.27
169	5	1	-247.81	0.62	0.04	0.70	0.16	0.15
281	96	167	-32.70	2.17	0.00	0.83	0.73	0.73
284	167	34	21.20	1.36	0.01	0.54	0.43	0.42
320	89	192	105.46	0.60	0.01	0.67	0.29	0.28
328	239	107	21.49	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-212.38	0.00	0.00	0.60	0.11	0.11
341	291	167	82.67	0.03	0.00	0.23	0.02	0.02
348	253	89	-106.92	0.08	0.00	0.44	0.08	0.08
469	291	339	259.85	0.55	0.00	0.74	0.16	0.16
473	338	339	-291.14	0.07	0.00	0.83	0.20	0.20

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1158.55	990.00	168.55	73.04
66	Keene 4 way	5.44(1.25)	1154.57	905.00	249.57	108.15
79	James Lane E	4.30(1.25)	1151.73	915.00	236.73	102.58
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1151.80	850.00	301.80	130.78
182	End of Parke	3.25(1.25)	1151.86	915.00	236.86	102.64
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	130.78	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	209	52.87
178	120.85	I-Pump-1	52.87
I-RV-R1	120.85	I-Pump-2	52.87
133	120.60	96	54.06
318	120.59	238	54.42
323	120.54	R-1	55.03
276	116.89	15	55.14

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00
20	2.55	248	0.00
296	1.96	227	0.00
470	1.79	391	0.00
304	1.50	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.55	187	0.00
296	1.72	248	0.00
303	1.69	227	0.00
263	1.01	391	0.00
467	0.82	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.53	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	114.77	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	120.85	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	80.64	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	48.37	Old Tank
TANK-B	212.38	New Tank - P
TANK-C	382.34	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 44.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-48.37	1159.40	6.40	21669.	39.5	DRAINING	6.19
TANK-B (1)	-212.38	1158.06	23.06	338750.	64.1	DRAINING	22.84
TANK-C (1)	-382.34	1160.04	27.04	572026.	71.2	DRAINING	26.77

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 44.250

CHANGES FOR NEXT SIMULATION (time = 44.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 44.250
 Time: 44.500
 Time: 44.750
 Time: 45.000

CHANGES FOR NEXT SIMULATION (time = 45.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1121.000
 Time: 45.000

TIME FROM INITIATION OF EPS = 45.0000 HOURS (9.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00029

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-21.49	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00

120	124	167	-27.64	2.15	0.00	0.71	0.69	0.69
123	192	207	119.28	0.55	0.01	0.76	0.28	0.27
169	5	1	-247.65	0.62	0.04	0.70	0.16	0.15
281	96	167	-31.71	2.05	0.00	0.81	0.69	0.69
284	167	34	20.71	1.30	0.01	0.53	0.41	0.41
320	89	192	107.01	0.61	0.01	0.68	0.30	0.29
328	239	107	21.49	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-220.99	0.00	0.00	0.63	0.12	0.12
341	291	167	80.49	0.03	0.00	0.23	0.02	0.02
348	253	89	-113.97	0.09	0.00	0.47	0.08	0.08
469	291	339	247.16	0.50	0.00	0.70	0.15	0.15
473	338	339	-276.81	0.06	0.00	0.79	0.18	0.18

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1157.56	990.00	167.56	72.61
66	Keene 4 way	5.44(1.25)	1153.64	905.00	248.64	107.74
79	James Lane E	4.30(1.25)	1150.80	915.00	235.80	102.18
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1150.87	850.00	300.87	130.38
182	End of Parke	3.25(1.25)	1150.93	915.00	235.93	102.24
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	130.38	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	96	53.65
133	120.60	238	54.02
318	120.59	15	54.71
323	120.54	192	55.60
178	120.45	16	55.81
I-RV-R1	120.45	287	56.17
276	116.89	217	56.30

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00

20	2.45	230	0.00
296	1.91	248	0.00
470	1.64	227	0.00
304	1.50	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.45	187	0.00
303	1.69	230	0.00
296	1.67	248	0.00
263	1.01	227	0.00
467	0.79	391	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.13	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	114.37	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	120.45	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	80.24	52.00	76.16

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	56.27	Old Tank
TANK-B	220.99	New Tank - P
TANK-C	365.83	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 45.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-56.27	1158.47	5.47	18497.	33.7	DRAINING	5.22
TANK-B(1)	-220.99	1157.18	22.18	325811.	61.6	DRAINING	21.96
TANK-C(1)	-365.83	1158.98	25.98	549552.	68.4	DRAINING	25.72

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 45.250

CHANGES FOR NEXT SIMULATION (time = 45.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 45.250
 Time: 45.500

Time: 45.750
 Time: 46.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 46.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1131.000
 Time: 46.000

TIME FROM INITIATION OF EPS = 46.0000 HOURS (10.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00039

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
2	13 107	-17.18	0.01	0.00	0.11	0.01	0.01
3	208 107	0.00	0.00	0.00	0.00	0.00	0.00
120	124 167	-24.35	1.70	0.00	0.62	0.55	0.55
123	192 207	91.48	0.34	0.01	0.58	0.17	0.17
169	5 1	-198.73	0.41	0.02	0.56	0.10	0.10
281	96 167	-28.42	1.68	0.00	0.73	0.56	0.56
284	167 34	18.14	1.02	0.00	0.46	0.32	0.32
320	89 192	79.62	0.35	0.01	0.51	0.17	0.17
328	239 107	17.18	0.00	0.00	0.05	0.00	0.00
338	89 I-AV-2	-143.58	0.00	0.00	0.41	0.05	0.05
341	291 167	71.25	0.02	0.00	0.20	0.02	0.01
348	253 89	-63.96	0.03	0.00	0.26	0.03	0.03
469	291 339	223.91	0.42	0.00	0.64	0.12	0.12
473	338 339	-251.00	0.05	0.00	0.71	0.15	0.15

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.24	1156.83	990.00	166.83	72.29
66	Keene 4 way	4.35	1154.07	905.00	249.07	107.93
79	James Lane E	3.44	1152.21	915.00	237.21	102.79
131	Drakes Ln EO	0.81	1088.87	935.00	153.87	66.68
157	KY1267 EOL	1.35	1088.85	840.00	248.85	107.83
173	Stirling Est	3.07	1152.25	850.00	302.25	130.98

182	End of Parke	2.60	1152.29	915.00	237.29	102.83
217	Bark Woods	2.60	1089.97	960.00	129.97	56.32
233	Hagin EOL	1.18	1088.79	940.00	148.79	64.48

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.98	137	52.00
173	130.98	200	52.00
53	126.01	O-RV-R2	52.00
60	125.16	96	53.38
133	120.85	238	54.06
318	120.84	15	54.32
323	120.81	192	55.38
178	120.71	16	55.53
I-RV-R1	120.71	287	56.23
276	116.91	217	56.32

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.37	187	0.00
20	1.99	227	0.00
296	1.44	248	0.00
470	1.33	391	0.00
304	0.89	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.99	187	0.00
296	1.27	227	0.00
303	1.26	248	0.00
263	0.67	391	0.00
467	0.61	103	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.37	73.60	11.03
RV-2	PRV-1	86.70	ACTIVATED	114.47	86.70	48.38
RV-R1	PRV-1	93.20	ACTIVATED	120.71	93.20	38.18
RV-R2	PRV-1	52.00	ACTIVATED	80.20	52.00	58.33

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.96	
R-1	0.00	KAWC Tank
TANK-A	41.82	Old Tank
TANK-B	143.58	New Tank - P
TANK-C	329.07	Chinkapin Ta

NET SYSTEM INFLOW = 516.43
 NET SYSTEM OUTFLOW = 0.00

TANK STATUS REPORT (time = 46.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-41.82	1157.46	4.46	15109.	27.6	DRAINING	4.28
TANK-B(1)	-143.58	1156.27	21.27	312392.	59.1	DRAINING	21.12
TANK-C(1)	-329.07	1157.95	24.95	527774.	65.7	DRAINING	24.72

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 46.250

CHANGES FOR NEXT SIMULATION (time = 46.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 46.250
Time: 46.500
Time: 46.750
Time: 47.000

CHANGES FOR NEXT SIMULATION (time = 47.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
Time: 47.000

TIME FROM INITIATION OF EPS = 47.0000 HOURS (11.00PM, DAY: 2)

RESULTS OBTAINED AFTER 15 TRIALS: ACCURACY = 0.00062

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-3.76	0.00	0.00	0.02	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-16.62	0.84	0.00	0.42	0.27	0.27
123	192	207	-13.26	0.01	0.00	0.08	0.00	0.00
169	5	1	-69.02	0.06	0.00	0.20	0.01	0.01
281	96	167	-20.74	0.93	0.00	0.53	0.31	0.31
284	167	34	11.91	0.47	0.00	0.30	0.15	0.15
320	89	192	-29.68	0.06	0.00	0.19	0.03	0.03
328	239	107	3.76	0.00	0.00	0.01	0.00	0.00
338	89	I-AV-2	119.83	0.00	0.00	0.34	0.04	0.04
341	291	167	49.35	0.01	0.00	0.14	0.01	0.01
348	253	89	90.15	0.06	0.00	0.37	0.05	0.05
469	291	339	173.40	0.26	0.00	0.49	0.08	0.08
473	338	339	-195.25	0.03	0.00	0.55	0.09	0.09

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.06(0.25)	1156.53	990.00	166.53	72.16
66	Keene 4 way	1.09(0.25)	1155.74	905.00	250.74	108.66
79	James Lane E	0.86(0.25)	1155.60	915.00	240.60	104.26
131	Drakes Ln EO	0.20(0.25)	1089.95	935.00	154.95	67.14
157	KY1267 EOL	0.34(0.25)	1089.95	840.00	249.95	108.31
173	Stirling Est	0.77(0.25)	1155.61	850.00	305.61	132.43
182	End of Parke	0.65(0.25)	1155.61	915.00	240.61	104.26
217	Bark Woods	0.65(0.25)	1090.04	960.00	130.04	56.35
233	Hagin EOL	0.30(0.25)	1089.94	940.00	149.94	64.97

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.47	137	52.01
173	132.43	200	52.01
53	126.51	O-RV-R2	52.01
60	125.64	96	53.33
178	121.63	15	54.02
I-RV-R1	121.63	238	54.53
318	121.31	192	55.37
133	121.31	16	55.48
323	121.31	287	56.34
276	117.01	217	56.35

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
20	1.05	198	0.00
470	0.75	269	0.00
296	0.61	356	0.00
281	0.31	199	0.00
303	0.31	424	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.05	198	0.00
296	0.54	269	0.00
281	0.31	356	0.00
467	0.27	199	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	102.16	73.68	0.00
RV-2	PRV-1	86.70	ACTIVATED	115.10	86.70	25.74
RV-R1	PRV-1	93.20	ACTIVATED	121.63	93.20	13.24
RV-R2	PRV-1	52.00	CLOSED	80.56	52.01	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.49	
R-1	0.00	KAWC Tank
TANK-A	2.14	Old Tank
TANK-B	-119.83	New Tank - P
TANK-C	246.31	Chinkapin Ta

NET SYSTEM INFLOW = 248.94
 NET SYSTEM OUTFLOW = -119.83
 NET SYSTEM DEMAND = 129.11

T A N K S T A T U S R E P O R T (time = 47.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-2.14	1156.67	3.67	12423.	22.7	DRAINING	3.66
TANK-B (1)	119.83	1155.65	20.65	303327.	57.4	FILLING	20.77
TANK-C (1)	-246.31	1157.05	24.05	508657.	63.3	DRAINING	23.87

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 47.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 47.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 47.250
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE Pump-1 HAS CHANGED STATUS (opened) (time = 47.2500 hours)
 Time: 47.250
 Time: 47.500
 Time: 47.750
 Time: 48.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 48.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
Time: 48.000

TIME FROM INITIATION OF EPS = 48.0000 HOURS (12.00PM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00007

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-260.05	1.82	0.20	1.66	1.28	1.16
3	208	107	1156.24	1.37	2.35	3.28	6.93	2.55
120	124	167	24.66	1.74	0.00	0.63	0.56	0.56
123	192	207	-271.82	2.53	0.07	1.73	1.29	1.26
169	5	1	791.18	5.30	0.37	2.24	1.35	1.26
281	96	167	33.80	2.31	0.00	0.86	0.77	0.77
284	167	34	-17.15	0.92	0.00	0.44	0.29	0.29
320	89	192	-269.73	3.39	0.07	1.72	1.65	1.61
328	239	107	-896.19	4.42	0.00	2.54	1.59	1.59
338	89	I-AV-2	564.11	0.02	0.00	1.60	0.67	0.67
341	291	167	-75.58	0.03	0.00	0.21	0.02	0.02
348	253	89	294.38	0.53	0.00	1.20	0.49	0.49
469	291	339	-320.59	0.81	0.00	0.91	0.24	0.24
473	338	339	361.88	0.10	0.00	1.03	0.30	0.30

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1156.24	163.38	204.16	40.8	66.23	12.	0.2	14.6	**	**	196.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1158.68	990.00	168.68	73.09
66	Keene 4 way	0.44(0.10)	1165.78	905.00	260.78	113.00
79	James Lane E	0.34(0.10)	1169.85	915.00	254.85	110.43
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1169.85	850.00	319.85	138.60
182	End of Parke	0.26(0.10)	1169.85	915.00	254.85	110.43
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

MAXIMUM AND MINIMUM VALUES

PRESURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	138.60	200	52.03
53	126.56	O-RV-R2	52.03
178	126.01	15	54.91
I-RV-R1	126.01	96	55.06
60	125.69	287	56.36
318	121.36	217	56.36
133	121.36	TANK-A	57.21
323	121.36	O-AV-1	57.27
171	119.51	16	57.29

HL + ML / 1000

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	31.54	199	0.00
3	6.93	391	0.00
296	6.34	441	0.00
9	4.67	201	0.00
11	3.74	118	0.00

HL / 1000

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.47	199	0.00
9	4.67	391	0.00
38	4.67	441	0.00
11	3.74	201	0.00
418	2.89	118	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	106.75	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	117.00	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	126.01	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	82.37	52.03	0.00

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1156.24	KAWC Tank
TANK-A	-103.90	Old Tank
TANK-B	-564.11	New Tank - P
TANK-C	-436.78	Chinkapin Ta

NET SYSTEM INFLOW = 1156.43
 NET SYSTEM OUTFLOW = -1104.79
 NET SYSTEM DEMAND = 51.64

TANK STATUS REPORT (time = 48.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	103.90	1158.03	5.03	17025.	31.1	FILLING	5.49
TANK-B (1)	564.11	1157.35	22.35	328279.	62.1	FILLING	22.92
TANK-C (1)	436.78	1157.61	24.61	520536.	64.8	FILLING	24.92

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 48.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 48.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 48.250
Time: 48.500
Time: 48.750
Time: 49.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 49.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
Time: 49.000

TIME FROM INITIATION OF EPS = 49.0000 HOURS (13.00PM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00011

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-240.52	1.57	0.17	1.54	1.11	1.00
3	208	107	1068.92	1.18	2.01	3.03	5.95	2.20
120	124	167	25.66	1.88	0.00	0.66	0.60	0.60
123	192	207	-247.49	2.13	0.06	1.58	1.08	1.06
169	5	1	731.17	4.58	0.31	2.07	1.16	1.09
281	96	167	34.78	2.44	0.00	0.89	0.82	0.82
284	167	34	-17.85	0.99	0.00	0.46	0.31	0.31
320	89	192	-243.78	2.81	0.06	1.56	1.36	1.34
328	239	107	-828.39	3.83	0.00	2.35	1.37	1.37
338	89	I-AV-2	488.05	0.02	0.00	1.38	0.52	0.52
341	291	167	-78.26	0.03	0.00	0.22	0.02	0.02
348	253	89	244.26	0.38	0.00	1.00	0.35	0.35
469	291	339	-333.03	0.87	0.00	0.94	0.25	0.25
473	338	339	375.92	0.11	0.00	1.07	0.32	0.32

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1068.92	149.47	200.91	51.4	71.57	14.	0.2	15.3	**	**	182.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02 (0.10)	1160.05	990.00	170.05	73.69
66	Keene 4 way	0.44 (0.10)	1166.44	905.00	261.44	113.29
79	James Lane E	0.34 (0.10)	1169.95	915.00	254.95	110.48
131	Drakes Ln EO	0.08 (0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14 (0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31 (0.10)	1169.95	850.00	319.95	138.65
182	End of Parke	0.26 (0.10)	1169.95	915.00	254.95	110.48
217	Bark Woods	0.26 (0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12 (0.10)	1090.05	940.00	150.05	65.02

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	138.65	200	52.03
53	126.56	O-RV-R2	52.03
178	126.29	15	55.51
I-RV-R1	126.29	96	55.68
60	125.69	287	56.36
318	121.36	217	56.36
133	121.36	16	57.90
323	121.36	TANK-A	57.95
171	119.80	O-AV-1	57.98

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	26.98	199	0.00
3	5.95	391	0.00
296	5.67	441	0.00
9	4.03	201	0.00
11	3.23	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	4.90	199	0.00
9	4.03	391	0.00
38	4.03	441	0.00
11	3.23	201	0.00
20	2.52	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	107.00	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	117.63	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	126.29	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	82.99	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1068.92	KAWC Tank
TANK-A	-75.92	Old Tank
TANK-B	-488.05	New Tank - P
TANK-C	-453.50	Chinkapin Ta

NET SYSTEM INFLOW = 1069.11
 NET SYSTEM OUTFLOW = -1017.47
 NET SYSTEM DEMAND = 51.64

T A N K S T A T U S R E P O R T (time = 49.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	75.92	1159.74	6.74	22794.	41.6	FILLING	7.07
TANK-B(1)	488.05	1159.59	24.59	361271.	68.3	FILLING	25.09
TANK-C(1)	453.50	1158.90	25.90	547844.	68.2	FILLING	26.22

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 49.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 49.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 49.250
 Time: 49.500
 Time: 49.750
 Time: 50.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 50.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1158.000
 Time: 50.000

TIME FROM INITIATION OF EPS = 50.0000 HOURS (14.00PM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00007

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-260.69	1.83	0.20	1.66	1.29	1.16
3	208	107	1159.05	1.37	2.37	3.29	6.97	2.56
120	124	167	29.38	2.41	0.00	0.75	0.78	0.78
123	192	207	-267.34	2.45	0.07	1.71	1.25	1.22
169	5	1	794.91	5.34	0.37	2.25	1.36	1.27
281	96	167	39.62	3.10	0.00	1.01	1.04	1.04
284	167	34	-20.45	1.27	0.01	0.52	0.40	0.40
320	89	192	-262.07	3.21	0.07	1.67	1.56	1.53
328	239	107	-898.36	4.44	0.00	2.55	1.60	1.60
338	89	I-AV-2	510.12	0.02	0.00	1.45	0.56	0.56
341	291	167	-89.42	0.04	0.00	0.25	0.02	0.02
348	253	89	248.04	0.39	0.00	1.01	0.36	0.36
469	291	339	-367.90	1.04	0.00	1.04	0.31	0.31
473	338	339	415.27	0.13	0.00	1.18	0.38	0.38

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1159.05	167.38	207.80	40.4	66.04	12.	0.2	16.0	**	**	200.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.02(0.10)	1161.68	990.00	171.68	74.39
66	Keene 4 way	0.44(0.10)	1169.36	905.00	264.36	114.55
79	James Lane E	0.34(0.10)	1173.44	915.00	258.44	111.99
131	Drakes Ln EO	0.08(0.10)	1090.05	935.00	155.05	67.19
157	KY1267 EOL	0.14(0.10)	1090.05	840.00	250.05	108.36
173	Stirling Est	0.31(0.10)	1173.44	850.00	323.44	140.16
182	End of Parke	0.26(0.10)	1173.44	915.00	258.44	111.99
217	Bark Woods	0.26(0.10)	1090.07	960.00	130.07	56.36
233	Hagin EOL	0.12(0.10)	1090.05	940.00	150.05	65.02

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.52	137	52.03
173	140.16	200	52.03
178	127.56	O-RV-R2	52.03
I-RV-R1	127.56	15	56.19

53	126.56	287	56.36
60	125.69	217	56.36
318	121.36	96	56.55
133	121.36	18	58.53
323	121.36	TANK-A	58.54
171	121.06	O-AV-1	58.59

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	31.69	199	0.00
3	6.97	391	0.00
296	6.80	441	0.00
9	4.69	201	0.00
11	3.76	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.86	199	0.00
9	4.69	391	0.00
38	4.69	441	0.00
11	3.76	201	0.00
20	3.32	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	108.30	73.70	0.00
RV-2	PRV-1	86.70	ACTIVATED	118.51	86.70	10.29
RV-R1	PRV-1	93.20	ACTIVATED	127.56	93.20	5.30
RV-R2	PRV-1	52.00	CLOSED	83.87	52.03	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.20	
R-1	1159.05	KAWC Tank
TANK-A	-93.48	Old Tank
TANK-B	-510.12	New Tank - P
TANK-C	-504.00	Chinkapin Ta

NET SYSTEM INFLOW = 1159.25
 NET SYSTEM OUTFLOW = -1107.60
 NET SYSTEM DEMAND = 51.64

T A N K S T A T U S R E P O R T (time = 50.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	93.48	1161.10	8.10	27418.	50.0	FILLING	8.52
TANK-B(1)	510.12	1161.54	26.54	389834.	73.7	FILLING	27.06
TANK-C(1)	504.00	1160.21	27.21	575489.	71.6	FILLING	27.56

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 50.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 50.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 50.250
 Time: 50.500
 Time: 50.750
 Time: 51.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 51.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 51.000

TIME FROM INITIATION OF EPS = 51.0000 HOURS (15.00PM, DAY: 2)

RESULTS OBTAINED AFTER 16 TRIALS: ACCURACY = 0.00006

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-251.55	1.71	0.19	1.61	1.21	1.09
3	208	107	1108.67	1.26	2.17	3.14	6.39	2.36
120	124	167	27.99	2.20	0.00	0.71	0.71	0.71
123	192	207	-236.57	1.96	0.05	1.51	1.00	0.97
169	5	1	735.10	4.62	0.32	2.09	1.18	1.10
281	96	167	38.15	2.89	0.00	0.97	0.97	0.97
284	167	34	-19.30	1.14	0.01	0.49	0.36	0.36
320	89	192	-231.06	2.54	0.05	1.47	1.24	1.21
328	239	107	-857.12	4.07	0.00	2.43	1.46	1.46
338	89	I-AV-2	418.30	0.01	0.00	1.19	0.39	0.39
341	291	167	-85.37	0.03	0.00	0.24	0.02	0.02
348	253	89	187.23	0.23	0.00	0.76	0.21	0.21
469	291	339	-359.18	1.00	0.00	1.02	0.29	0.29
473	338	339	405.66	0.12	0.00	1.15	0.37	0.37

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1108.67	158.43	205.16	46.7	69.28	13.	0.2	16.7	**	**	191.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.06(0.25)	1162.99	990.00	172.99	74.96
66	Keene 4 way	1.09(0.25)	1169.09	905.00	264.09	114.44
79	James Lane E	0.86(0.25)	1172.65	915.00	257.65	111.65
131	Drakes Ln EO	0.20(0.25)	1089.95	935.00	154.95	67.14
157	KY1267 EOL	0.34(0.25)	1089.95	840.00	249.95	108.31
173	Stirling Est	0.77(0.25)	1172.66	850.00	322.66	139.82
182	End of Parke	0.65(0.25)	1172.66	915.00	257.66	111.65
217	Bark Woods	0.65(0.25)	1090.04	960.00	130.04	56.35
233	Hagin EOL	0.30(0.25)	1089.94	940.00	149.94	64.97

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.47	137	52.01
173	139.82	200	52.01
178	127.41	O-RV-R2	52.01
I-RV-R1	127.41	287	56.34
53	126.51	217	56.35
60	125.64	15	56.79
318	121.31	96	57.09
133	121.31	18	58.50
323	121.31	TANK-C	59.22
171	120.93	TANK-A	59.25

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	28.29	199	0.00
3	6.39	441	0.00
296	5.91	391	0.00
9	4.22	201	0.00
11	3.33	162	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	5.11	199	0.00
9	4.22	441	0.00
38	4.22	391	0.00
11	3.33	201	0.00
20	3.06	162	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	108.15	73.68	0.00
RV-2	PRV-1	86.70	ACTIVATED	118.89	86.70	25.74
RV-R1	PRV-1	93.20	ACTIVATED	127.41	93.20	13.24
RV-R2	PRV-1	52.00	CLOSED	84.37	52.01	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.49	
R-1	1108.67	KAWC Tank
TANK-A	-72.43	Old Tank
TANK-B	-418.30	New Tank - P
TANK-C	-489.32	Chinkapin Ta

NET SYSTEM INFLOW = 1109.16
 NET SYSTEM OUTFLOW = -980.05
 NET SYSTEM DEMAND = 129.11

TANK STATUS REPORT (time = 51.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	72.43	1162.72	9.72	32896.	60.0	FILLING	10.04
TANK-B (1)	418.30	1163.58	28.58	419839.	79.4	FILLING	29.01
TANK-C (1)	489.32	1161.66	28.66	606249.	75.4	FILLING	29.01

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 51.250

CHANGES FOR NEXT SIMULATION (time = 51.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 51.250
 Time: 51.500
 Time: 51.750
 Time: 52.000

CHANGES FOR NEXT SIMULATION (time = 52.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1142.000
 Time: 52.000

TIME FROM INITIATION OF EPS = 52.0000 HOURS (16.00PM, DAY: 2)

RESULTS OBTAINED AFTER 13 TRIALS: ACCURACY = 0.00003

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-246.96	1.65	0.18	1.58	1.17	1.05
3	208	107	1072.30	1.19	2.03	3.04	5.99	2.21

120	124	167	24.73	1.75	0.00	0.63	0.56	0.56
123	192	207	-199.70	1.43	0.04	1.27	0.73	0.71
169	5	1	669.21	3.88	0.26	1.90	0.99	0.92
281	96	167	35.21	2.49	0.00	0.90	0.83	0.83
284	167	34	-16.73	0.88	0.00	0.43	0.28	0.27
320	89	192	-194.85	1.86	0.04	1.24	0.90	0.88
328	239	107	-825.34	3.80	0.00	2.34	1.36	1.36
338	89	I-AV-2	305.60	0.01	0.00	0.87	0.22	0.22
341	291	167	-76.49	0.03	0.00	0.22	0.02	0.02
348	253	89	110.76	0.09	0.00	0.45	0.08	0.08
469	291	339	-334.62	0.88	0.00	0.95	0.26	0.26
473	338	339	378.33	0.11	0.00	1.07	0.32	0.32

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1072.30	151.46	202.52	51.1	71.39	14.	0.2	17.4	**	**	184.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12(0.50)	1164.09	990.00	174.09	75.44
66	Keene 4 way	2.18(0.50)	1168.27	905.00	263.27	114.08
79	James Lane E	1.72(0.50)	1171.04	915.00	256.04	110.95
131	Drakes Ln EO	0.41(0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68(0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54(0.50)	1171.05	850.00	321.05	139.12
182	End of Parke	1.30(0.50)	1171.07	915.00	256.07	110.96
217	Bark Woods	1.30(0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59(0.50)	1089.67	940.00	149.67	64.86

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	139.12	200	52.00
178	127.00	O-RV-R2	52.00
I-RV-R1	127.00	287	56.31
53	126.39	217	56.34
60	125.53	15	57.32
133	121.20	96	57.50
318	121.20	18	58.48
323	121.19	295	59.37
171	120.54	93	59.67

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)

38	25.30	227	0.00
3	5.99	199	0.00
296	4.90	391	0.00
9	3.80	225	0.00
11	2.91	201	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
296	4.24	227	0.00
9	3.80	199	0.00
38	3.80	391	0.00
11	2.91	225	0.00
20	2.65	201	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	107.76	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	119.12	86.70	33.62
RV-R1	PRV-1	93.20	ACTIVATED	127.00	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	84.68	52.00	19.97

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	1072.30	KAWC Tank
TANK-A	-58.05	Old Tank
TANK-B	-305.60	New Tank - P
TANK-C	-451.41	Chinkapin Ta

NET SYSTEM INFLOW = 1073.28
 NET SYSTEM OUTFLOW = -815.07
 NET SYSTEM DEMAND = 258.22

T A N K S T A T U S R E P O R T (time = 52.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	58.05	1164.06	11.06	37429.	68.3	FILLING	11.32
TANK-B(1)	305.60	1165.26	30.26	444500.	84.1	FILLING	30.57
TANK-C(1)	451.41	1163.05	30.05	635662.	79.1	FILLING	30.37

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 52.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 52.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 52.250

Time: 52.500
 Time: 52.750
 Time: 53.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 53.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1133.000
 Time: 53.000

TIME FROM INITIATION OF EPS = 53.0000 HOURS (17.00PM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00024

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-250.55	1.70	0.19	1.60	1.20	1.08
3	208	107	1041.25	1.13	1.91	2.95	5.66	2.10
120	124	167	11.00	0.39	0.00	0.28	0.13	0.13
123	192	207	-108.95	0.47	0.01	0.70	0.24	0.23
169	5	1	533.70	2.55	0.17	1.51	0.65	0.61
281	96	167	27.13	1.54	0.00	0.69	0.51	0.51
284	167	34	-6.12	0.14	0.00	0.16	0.04	0.04
320	89	192	-108.33	0.63	0.01	0.69	0.30	0.30
328	239	107	-790.70	3.51	0.00	2.24	1.26	1.26
338	89	I-AV-2	28.31	0.00	0.00	0.08	0.00	0.00
341	291	167	-43.83	0.01	0.00	0.12	0.01	0.01
348	253	89	-80.02	0.05	0.00	0.33	0.04	0.04
463	291	339	-280.50	0.63	0.00	0.80	0.18	0.18
473	338	339	318.36	0.08	0.00	0.90	0.23	0.23

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1041.25	142.49	197.07	54.6	73.03	14.	0.2	18.1	**	**	175.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1164.54	990.00	174.54	75.63
66	Keene 4 way	5.44(1.25)	1165.20	905.00	260.20	112.75
79	James Lane E	4.30(1.25)	1164.89	915.00	249.89	108.29
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43

157	KY1267 EOL	1.69 (1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84 (1.25)	1164.96	850.00	314.96	136.48
182	End of Parke	3.25 (1.25)	1165.02	915.00	250.02	108.34
217	Bark Woods	3.25 (1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48 (1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	136.48	200	51.99
53	125.75	O-RV-R2	52.00
178	125.46	287	56.17
I-RV-R1	125.46	217	56.30
60	124.90	96	57.61
133	120.60	15	57.72
318	120.59	18	58.35
323	120.54	93	59.06
171	119.10	295	59.32

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	20.57	156	0.00
3	5.66	60	0.00
303	3.21	248	0.00
9	3.13	227	0.00
296	2.95	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	3.13	156	0.00
38	3.13	60	0.00
296	2.56	248	0.00
418	2.55	227	0.00
11	2.19	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	106.23	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	118.37	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	125.46	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	84.26	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	1041.25	KAWC Tank
TANK-A	-16.20	Old Tank
TANK-B	-28.31	New Tank - P
TANK-C	-353.65	Chinkapin Ta

NET SYSTEM INFLOW = 1043.70
NET SYSTEM OUTFLOW = -398.16
NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 53.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	16.20	1165.18	12.18	41224.	75.2	FILLING	12.25
TANK-B (1)	28.31	1166.50	31.50	462689.	87.5	FILLING	31.53
TANK-C (1)	353.65	1164.32	31.32	662420.	82.4	FILLING	31.57

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 53.250

CHANGES FOR NEXT SIMULATION (time = 53.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 53.250
Time: 53.500
Time: 53.750
Time: 54.000

CHANGES FOR NEXT SIMULATION (time = 54.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1126.000
Time: 54.000

TIME FROM INITIATION OF EPS = 54.0000 HOURS (18.00PM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00028

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-255.40	1.76	0.19	1.63	1.24	1.12
3	208	107	1016.93	1.08	1.82	2.88	5.40	2.01
120	124	167	-16.70	0.85	0.00	0.43	0.27	0.27
123	192	207	11.53	0.01	0.00	0.07	0.00	0.00
169	5	1	412.53	1.59	0.10	1.17	0.40	0.38
281	96	167	12.48	0.37	0.00	0.32	0.12	0.12
284	167	34	13.70	0.61	0.00	0.35	0.19	0.19
320	89	192	16.65	0.02	0.00	0.11	0.01	0.01
328	239	107	-761.53	3.27	0.00	2.16	1.17	1.17
338	89	I-AV-2	-175.21	0.00	0.00	0.50	0.08	0.08
341	291	167	18.60	0.00	0.00	0.05	0.00	0.00
348	253	89	-158.56	0.17	0.00	0.65	0.16	0.16
469	291	339	-197.96	0.33	0.00	0.56	0.10	0.10
473	338	339	226.13	0.04	0.00	0.64	0.12	0.12

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
 98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1016.94	135.51	192.74	57.2	74.22	15.	0.2	18.8	**	**	168.6

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1164.64	990.00	174.64	75.68
66	Keene 4 way	8.70(2.00)	1161.84	905.00	256.84	111.30
79	James Lane E	6.88(2.00)	1157.46	915.00	242.46	105.07
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1157.62	850.00	307.62	133.30
182	End of Parke	5.20(2.00)	1157.77	915.00	242.77	105.20
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	133.30	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	287	55.92
178	123.69	217	56.23
I-RV-R1	123.69	96	57.47
133	119.59	15	57.93
318	119.55	93	58.02
323	119.44	18	58.13
171	117.46	I-Pump-1	58.72

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	16.56	355	0.00
303	6.80	248	0.00
3	5.40	213	0.00
304	4.11	391	0.00
9	2.55	227	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	3.49	355	0.00

9	2.55	248	0.00
38	2.55	213	0.00
418	2.55	391	0.00
263	2.40	227	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.58	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	116.81	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	123.69	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	83.25	52.00	128.08

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	1016.94	KAWC Tank
TANK-A	30.67	Old Tank
TANK-B	175.21	New Tank - P
TANK-C	-193.88	Chinkapin Ta

NET SYSTEM INFLOW = 1226.74
 NET SYSTEM OUTFLOW = -193.88
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 54.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-30.67	1165.74	12.74	43116.	78.6	DRAINING	12.60
TANK-B (1)	-175.21	1166.68	31.68	465336.	88.0	DRAINING	31.50
TANK-C (1)	193.88	1165.23	32.23	681722.	84.8	FILLING	32.37

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 54.250

CHANGES FOR NEXT SIMULATION (time = 54.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 54.250
 Time: 54.500
 Time: 54.750
 Time: 55.000

CHANGES FOR NEXT SIMULATION (time = 55.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

TANK at node R-1 has a new HGL of 1137.000
 Time: 55.000

TIME FROM INITIATION OF EPS = 55.0000 HOURS (19.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-266.76	1.91	0.21	1.70	1.35	1.21
3	208	107	1082.81	1.21	2.07	3.07	6.10	2.25
120	124	167	-15.78	0.76	0.00	0.40	0.25	0.25
123	192	207	-70.11	0.21	0.00	0.45	0.10	0.10
169	5	1	486.90	2.16	0.14	1.38	0.55	0.51
281	96	167	7.56	0.14	0.00	0.19	0.05	0.05
284	167	34	12.82	0.54	0.00	0.33	0.17	0.17
320	89	192	-73.76	0.31	0.01	0.47	0.15	0.15
328	239	107	-816.05	3.72	0.00	2.31	1.34	1.34
338	89	I-AV-2	20.39	0.00	0.00	0.06	0.00	0.00
341	291	167	21.63	0.00	0.00	0.06	0.00	0.00
348	253	89	-53.37	0.02	0.00	0.22	0.02	0.02
469	291	339	-140.59	0.18	0.00	0.40	0.05	0.05
473	338	339	160.98	0.02	0.00	0.46	0.07	0.07

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1082.81	146.45	196.28	49.8	70.80	14.	0.2	19.6	**	**	179.5

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.41(1.75)	1165.08	990.00	175.08	75.87
66	Keene 4 way	7.62(1.75)	1163.06	905.00	258.06	111.83
79	James Lane E	6.02(1.75)	1160.18	915.00	245.18	106.24
131	Drakes Ln EO	1.42(1.75)	1086.80	935.00	151.80	65.78
157	KY1267 EOL	2.37(1.75)	1086.74	840.00	246.74	106.92
173	Stirling Est	5.38(1.75)	1160.30	850.00	310.30	134.46
182	End of Parke	4.55(1.75)	1160.42	915.00	245.42	106.35
217	Bark Woods	4.55(1.75)	1089.83	960.00	129.83	56.26
233	Hagin EOL	2.07(1.75)	1086.58	940.00	146.58	63.52

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.02	137	51.99
173	134.46	200	51.99
53	125.06	O-RV-R2	52.00
178	124.34	287	56.01
I-RV-R1	124.34	217	56.26
60	124.23	96	57.53
133	119.97	15	58.00
318	119.94	18	58.21
323	119.86	93	58.41
171	118.06	295	59.27

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	20.30	248	0.00
3	6.10	213	0.00
303	5.43	227	0.00
304	3.11	391	0.00
9	3.09	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	3.09	248	0.00
38	3.09	213	0.00
418	2.81	227	0.00
303	2.81	391	0.00
3	2.25	225	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	105.19	73.60	28.02
RV-2	PRV-1	86.70	ACTIVATED	117.43	86.70	75.11
RV-R1	PRV-1	93.20	ACTIVATED	124.34	93.20	58.77
RV-R2	PRV-1	52.00	ACTIVATED	83.66	52.00	110.95

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.43	
R-1	1082.81	KAWC Tank
TANK-A	-34.69	Old Tank
TANK-B	-20.39	New Tank - P
TANK-C	-127.41	Chinkapin Ta

NET SYSTEM INFLOW = 1086.24
 NET SYSTEM OUTFLOW = -182.49
 NET SYSTEM DEMAND = 903.75

TANK STATUS REPORT (time = 55.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	34.69	1165.76	12.76	43172.	78.7	FILLING	12.91

TANK-B(1)	20.39	1166.08	31.08	456521.	86.3	FILLING	31.10
TANK-C(1)	127.41	1165.61	32.61	689812.	85.8	FILLING	32.70

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
Time: 55.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 55.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 55.250
Time: 55.500
Time: 55.750
Time: 56.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 56.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
Time: 56.000

TIME FROM INITIATION OF EPS = 56.0000 HOURS (20.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00017

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-268.17	1.93	0.21	1.71	1.36	1.22
3	208	107	1129.42	1.31	2.25	3.20	6.62	2.44
120	124	167	2.47	0.02	0.00	0.06	0.01	0.01
123	192	207	-157.29	0.92	0.02	1.00	0.47	0.46
169	5	1	612.33	3.30	0.22	1.74	0.84	0.78
281	96	167	17.30	0.67	0.00	0.44	0.22	0.22
284	167	34	0.21	0.00	0.00	0.01	0.00	0.00
320	89	192	-159.18	1.28	0.02	1.02	0.62	0.61
328	239	107	-861.25	4.11	0.00	2.44	1.48	1.48
338	89	I-AV-2	262.37	0.01	0.00	0.74	0.16	0.16
341	291	167	-19.19	0.00	0.00	0.05	0.00	0.00
348	253	89	103.20	0.08	0.00	0.42	0.07	0.07
469	291	339	-199.34	0.34	0.00	0.57	0.10	0.10
473	338	339	226.53	0.04	0.00	0.64	0.12	0.12

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.26(1.10)	1166.01	990.00	176.01	76.27
66	Keene 4 way	4.79(1.10)	1166.58	905.00	261.58	113.35
79	James Lane E	3.78(1.10)	1167.45	915.00	252.45	109.40
131	Drakes Ln EO	0.89(1.10)	1088.65	935.00	153.65	66.58
157	KY1267 EOL	1.49(1.10)	1088.62	840.00	248.62	107.74
173	Stirling Est	3.38(1.10)	1167.50	850.00	317.50	137.58
182	End of Parke	2.86(1.10)	1167.55	915.00	252.55	109.44
217	Bark Woods	2.86(1.10)	1089.95	960.00	129.95	56.31
233	Hagin EOL	1.30(1.10)	1088.56	940.00	148.56	64.38

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.88	137	51.99
173	137.58	200	52.00
178	126.11	O-RV-R2	52.00
I-RV-R1	126.11	287	56.20
53	125.91	217	56.31
60	125.06	96	57.93
133	120.76	15	58.25
318	120.74	18	58.38
323	120.71	93	59.22
171	119.72	295	59.33

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	25.33	227	0.00
3	6.62	248	0.00
9	3.80	132	0.00
296	3.25	391	0.00
418	2.92	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	3.80	227	0.00
38	3.80	248	0.00
418	2.92	132	0.00
296	2.83	391	0.00
11	2.74	225	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)

RV-1	PRV-1	73.60	ACTIVATED	106.86	73.60	13.54
RV-2	PRV-1	86.70	ACTIVATED	118.96	86.70	51.75
RV-R1	PRV-1	93.20	ACTIVATED	126.11	93.20	40.71
RV-R2	PRV-1	52.00	ACTIVATED	84.76	52.00	65.51

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.16	
R-1	1129.42	KAWC Tank
TANK-A	-62.92	Old Tank
TANK-B	-262.37	New Tank - P
TANK-C	-238.21	Chinkapin Ta

NET SYSTEM INFLOW = 1131.58
 NET SYSTEM OUTFLOW = -563.50
 NET SYSTEM DEMAND = 568.07

T A N K S T A T U S R E P O R T (time = 56.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	62.92	1166.16	13.16	44528.	81.2	FILLING	13.44
TANK-B (1)	262.37	1166.21	31.21	458500.	86.7	FILLING	31.48
TANK-C (1)	238.21	1165.97	32.97	697395.	86.8	FILLING	33.14

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 56.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 56.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 56.250
 Time: 56.500
 Time: 56.750
 Time: 57.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 57.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1163.000
 Time: 57.000

TIME FROM INITIATION OF EPS = 57.0000 HOURS (21.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00032

P I P E L I N E R E S U L T S

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-275.94	2.03	0.23	1.76	1.44	1.29
3	208	107	1186.12	1.43	2.48	3.36	7.29	2.67
120	124	167	15.44	0.73	0.00	0.39	0.24	0.24
123	192	207	-206.41	1.52	0.04	1.32	0.77	0.75
169	5	1	706.08	4.29	0.29	2.00	1.09	1.02
281	96	167	26.38	1.46	0.00	0.67	0.49	0.49
284	167	34	-9.91	0.33	0.00	0.25	0.10	0.10
320	89	192	-205.95	2.06	0.04	1.31	1.00	0.98
328	239	107	-910.18	4.55	0.00	2.58	1.63	1.63
338	89	I-AV-2	371.94	0.01	0.00	1.06	0.31	0.31
341	291	167	-51.48	0.01	0.00	0.15	0.01	0.01
348	253	89	165.99	0.19	0.00	0.68	0.17	0.17
469	291	339	-269.15	0.59	0.00	0.76	0.17	0.17
473	338	339	304.82	0.07	0.00	0.86	0.22	0.22

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREM TL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1186.12	172.35	209.23	36.9	64.15	11.0	0.2	21.0	**	**	205.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1167.12	990.00	177.12	76.75
66	Keene 4 way	3.26(0.75)	1170.07	905.00	265.07	114.86
79	James Lane E	2.58(0.75)	1172.80	915.00	257.80	111.71
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1172.83	850.00	322.83	139.89
182	End of Parke	1.95(0.75)	1172.85	915.00	257.85	111.73
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	139.89	200	52.00
178	127.71	O-RV-R2	52.00
I-RV-R1	127.71	287	56.27
53	126.23	217	56.33
60	125.37	18	58.45
171	121.28	96	58.60
170	121.27	15	58.71
179	121.15	295	59.36

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	29.88	227	0.00
3	7.29	225	0.00
296	4.70	391	0.00
9	4.44	201	0.00
11	3.34	248	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	4.44	227	0.00
38	4.44	225	0.00
296	4.07	391	0.00
11	3.34	201	0.00
418	3.13	248	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	108.51	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	120.01	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	127.71	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	85.65	52.00	40.02

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	1186.12	KAWC Tank
TANK-A	-77.15	Old Tank
TANK-B	-371.94	New Tank - P
TANK-C	-351.18	Chinkapin Ta

NET SYSTEM INFLOW = 1187.59
 NET SYSTEM OUTFLOW = -800.27
 NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 57.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	77.15	1167.10	14.10	47733.	87.1	FILLING	14.45
TANK-B(1)	371.94	1167.25	32.25	473724.	89.6	FILLING	32.63
TANK-C(1)	351.18	1166.69	33.69	712658.	88.7	FILLING	33.94

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 57.250

CHANGES FOR NEXT SIMULATION (time = 57.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 57.250
Time: 57.500
Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (closed) (time = 57.5000 hours)
Time: 57.500
Time: 57.750
Time: 58.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 58.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1161.000
Time: 58.000

TIME FROM INITIATION OF EPS = 58.0000 HOURS (22.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00032

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE #1	NODE #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
2	13	107	-271.80	1.97	0.22	1.73	1.40	1.26
3	208	107	1167.59	1.39	2.40	3.31	7.07	2.59
120	124	167	17.45	0.92	0.00	0.45	0.30	0.30
123	192	207	-201.70	1.46	0.04	1.29	0.74	0.72
169	5	1	693.24	4.15	0.28	1.97	1.05	0.99
281	96	167	28.80	1.72	0.00	0.74	0.57	0.57
284	167	34	-11.32	0.43	0.00	0.29	0.13	0.13
320	89	192	-201.12	1.97	0.04	1.28	0.96	0.94
328	239	107	-895.80	4.42	0.00	2.54	1.59	1.59
338	89	I-AV-2	358.06	0.01	0.00	1.02	0.29	0.29
341	291	167	-57.31	0.02	0.00	0.16	0.01	0.01
348	253	89	156.94	0.17	0.00	0.64	0.15	0.15
469	291	339	-328.22	0.85	0.00	0.93	0.25	0.25
473	338	339	371.49	0.10	0.00	1.05	0.31	0.31

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC-ENCY (%)	USEFUL POWER (Hp)	INCREMENTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1167.59	170.37	209.68	39.3	65.45	12.	0.2	21.8	**	**	203.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1168.35	990.00	178.35	77.29
66	Keene 4 way	3.26(0.75)	1171.37	905.00	266.37	115.43
79	James Lane E	2.58(0.75)	1173.99	915.00	258.99	112.23
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1174.02	850.00	324.02	140.41
182	End of Parke	1.95(0.75)	1174.04	915.00	259.04	112.25
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	140.41	200	52.00
178	128.28	O-RV-R2	52.00
I-RV-R1	128.28	287	56.27
53	126.23	217	56.33
60	125.37	18	58.45
171	121.85	96	59.21
170	121.84	15	59.36
179	121.71	295	59.36
133	121.05	93	59.51

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	28.91	227	0.00
3	7.07	225	0.00
296	4.54	391	0.00
9	4.30	201	0.00
11	3.23	248	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	4.30	227	0.00
38	4.30	225	0.00
296	3.93	391	0.00
11	3.23	201	0.00
418	3.05	248	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	109.07	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	120.61	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	128.28	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	86.25	52.00	40.02

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	1167.59	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	-358.06	New Tank - P
TANK-C	-423.68	Chinkapin Ta

NET SYSTEM INFLOW = 1169.06
 NET SYSTEM OUTFLOW = -781.74
 NET SYSTEM DEMAND = 387.32

T A N K S T A T U S R E P O R T (time = 58.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	358.06	1168.76	33.76	495921.	93.8	FILLING	34.13
TANK-C(1)	423.68	1167.80	34.80	736061.	91.6	FILLING	35.10

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 58.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 58.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 58.250
 Time: 58.500
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-2 HAS CHANGED STATUS (closed) (time = 58.5000 hours)
 Time: 58.500
 Time: 58.750
 Time: 59.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 59.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1158.000
 Time: 59.000

TIME FROM INITIATION OF EPS = 59.0000 HOURS (23.00PM, DAY: 2)

RESULTS OBTAINED AFTER 9 TRIALS: ACCURACY = 0.00015

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-281.86	2.11	0.24	1.80	1.49	1.34
3	208	107	1165.51	1.39	2.39	3.31	7.04	2.58
120	124	167	10.02	0.33	0.00	0.26	0.11	0.11
123	192	207	-110.12	0.47	0.01	0.70	0.24	0.24
169	5	1	583.07	3.01	0.20	1.65	0.76	0.72
281	96	167	29.54	1.80	0.00	0.75	0.60	0.60
284	167	34	-5.05	0.10	0.00	0.13	0.03	0.03
320	89	192	-109.07	0.63	0.01	0.70	0.31	0.30
328	239	107	-883.65	4.31	0.00	2.51	1.55	1.55
338	89	I-AV-2	0.00	0.00	0.00	0.00	0.00	0.00
341	291	167	-44.10	0.01	0.00	0.13	0.01	0.01
348	253	89	-109.07	0.09	0.00	0.45	0.08	0.08
469	291	339	-317.04	0.79	0.00	0.90	0.23	0.23
473	338	339	359.94	0.10	0.00	1.02	0.29	0.29

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
Pump-1	1165.51	167.38	206.95	39.6	65.60	12.	0.2	22.6	**	**	200.4

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.35(1.50)	1169.66	990.00	179.66	77.85
66	Keene 4 way	6.53(1.50)	1170.11	905.00	265.11	114.88
79	James Lane E	5.16(1.50)	1169.16	915.00	254.16	110.14
131	Drakes Ln EO	1.22(1.50)	1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03(1.50)	1087.55	840.00	247.55	107.27
173	Stirling Est	4.61(1.50)	1169.25	850.00	319.25	138.34
182	End of Parke	3.90(1.50)	1169.34	915.00	254.34	110.21
217	Bark Woods	3.90(1.50)	1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77(1.50)	1087.44	940.00	147.44	63.89

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	138.34	200	51.99
178	127.50	O-RV-R2	52.00
I-RV-R1	127.50	287	56.10
53	125.43	217	56.28
60	124.59	18	58.28

171	121.17	93	58.76
170	121.14	295	59.30
179	121.00	91	59.63
133	120.31	96	59.96

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
38	25.22	248	0.00
3	7.04	344	0.00
303	4.23	227	0.00
9	3.79	391	0.00
296	3.42	213	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
9	3.79	248	0.00
38	3.79	344	0.00
418	3.16	227	0.00
296	2.97	391	0.00
11	2.63	213	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	108.33	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	120.29	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	127.50	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	86.34	52.00	93.67

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	
R-1	1165.51	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	0.00	New Tank - P
TANK-C	-393.81	Chinkapin Ta

NET SYSTEM INFLOW = 1168.45
 NET SYSTEM OUTFLOW = -393.81
 NET SYSTEM DEMAND = 774.65

TANK STATUS REPORT (time = 59.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	0.00	1169.49	34.49	506600.	95.8		34.49
TANK-C(1)	393.81	1169.46	36.46	771234.	96.0	FILLING	36.74

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 59.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 59.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 59.250
Time: 59.500
Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE Pump-1 HAS CHANGED STATUS (closed) (time = 59.5000 hours)
Time: 59.500
Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (opened) (time = 59.5000 hours)
REFERENCE PIPE AV-2 HAS CHANGED STATUS (opened) (time = 59.5000 hours)
Time: 59.500
Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (closed) (time = 59.5000 hours)
Time: 59.500
Time: 59.750
Time: 60.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 60.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1156.000
Time: 60.000

TIME FROM INITIATION OF EPS = 60.0000 HOURS (24.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00034

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-18.95	0.01	0.00	0.12	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-21.87	1.39	0.00	0.56	0.45	0.45
123	192	207	111.51	0.49	0.01	0.71	0.25	0.24
169	5	1	-216.60	0.48	0.03	0.61	0.12	0.11
281	96	167	-24.33	1.26	0.00	0.62	0.42	0.42
284	167	34	16.50	0.85	0.00	0.42	0.27	0.27
320	89	192	104.78	0.59	0.01	0.67	0.29	0.28
328	239	107	18.95	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-250.13	0.00	0.00	0.71	0.15	0.15
341	291	167	63.08	0.02	0.00	0.18	0.01	0.01
348	253	89	-145.35	0.14	0.00	0.59	0.13	0.13
469	291	339	218.92	0.40	0.00	0.62	0.12	0.12

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.26(1.10)	1168.51	990.00	178.51	77.36
66	Keene 4 way	4.79(1.10)	1165.62	905.00	260.62	112.94
79	James Lane E	3.78(1.10)	1163.39	915.00	248.39	107.64
131	Drakes Ln EO	0.89(1.10)	1088.65	935.00	153.65	66.58
157	KY1267 EOL	1.49(1.10)	1088.62	840.00	248.62	107.74
173	Stirling Est	3.38(1.10)	1163.45	850.00	313.45	135.83
182	End of Parke	2.86(1.10)	1163.49	915.00	248.49	107.68
217	Bark Woods	2.86(1.10)	1089.95	960.00	129.95	56.31
233	Hagin EOL	1.30(1.10)	1088.56	940.00	148.56	64.38

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.88	137	51.99
173	135.83	200	52.00
53	125.91	O-RV-R2	52.00
178	125.69	287	56.20
I-RV-R1	125.69	217	56.31
60	125.06	18	58.38
133	120.76	96	58.55
318	120.74	238	59.12
323	120.71	93	59.22
I-RV-2	119.51	15	59.31

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.68	187	0.00
20	1.27	227	0.00
470	1.23	248	0.00
296	1.19	391	0.00
304	1.12	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
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303	1.42	187	0.00
20	1.27	227	0.00
296	1.04	248	0.00
263	0.79	391	0.00
242	0.62	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	106.36	73.60	13.54
RV-2	PRV-1	86.70	ACTIVATED	119.51	86.70	51.75
RV-R1	PRV-1	93.20	ACTIVATED	125.69	93.20	40.71
RV-R2	PRV-1	52.00	ACTIVATED	85.29	52.00	65.51

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.16	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	250.13	New Tank - P
TANK-C	315.78	Chinkapin Ta

NET SYSTEM INFLOW = 568.07
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 568.07

TANK STATUS REPORT (time = 60.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76
TANK-B(1)	-250.13	1168.72	33.72	495384.	93.7	DRAINING	33.47
TANK-C(1)	-315.78	1169.45	36.45	771091.	95.9	DRAINING	36.23

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 60.250

CHANGES FOR NEXT SIMULATION (time = 60.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 60.250
 Time: 60.500
 Time: 60.750
 Time: 61.000

CHANGES FOR NEXT SIMULATION (time = 61.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
 Time: 61.000

TIME FROM INITIATION OF EPS = 61.0000 HOURS (25.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00040

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-17.22	0.01	0.00	0.11	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-20.81	1.27	0.00	0.53	0.41	0.41
123	192	207	99.47	0.39	0.01	0.63	0.20	0.20
169	5	1	-197.20	0.40	0.02	0.56	0.10	0.10
281	96	167	-23.49	1.18	0.00	0.60	0.39	0.39
284	167	34	15.66	0.78	0.00	0.40	0.24	0.24
320	89	192	92.16	0.46	0.01	0.59	0.22	0.22
328	239	107	17.22	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-212.21	0.00	0.00	0.60	0.11	0.11
341	291	167	60.29	0.02	0.00	0.17	0.01	0.01
348	253	89	-120.05	0.10	0.00	0.49	0.09	0.09
469	291	339	209.86	0.37	0.00	0.60	0.11	0.11
473	338	339	-235.15	0.04	0.00	0.67	0.13	0.13

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (%)	TOTAL COST (%)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.24	1167.70	990.00	177.70	77.00
66	Keene 4 way	4.35	1165.20	905.00	260.20	112.75
79	James Lane E	3.44	1163.34	915.00	248.34	107.61
131	Drakes Ln EO	0.81	1088.87	935.00	153.87	66.68
157	KY1267 EOL	1.35	1088.85	840.00	248.85	107.83
173	Stirling Est	3.07	1163.38	850.00	313.38	135.80
182	End of Parke	2.60	1163.42	915.00	248.42	107.65
217	Bark Woods	2.60	1089.97	960.00	129.97	56.32
233	Hagin EOL	1.18	1088.79	940.00	148.79	64.48

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.98	137	52.00
173	135.80	200	52.00
53	126.01	O-RV-R2	52.00
178	125.54	287	56.23
I-RV-R1	125.54	217	56.32
60	125.16	96	58.20
133	120.85	18	58.40
318	120.84	238	58.88
323	120.81	15	58.94
I-RV-2	119.29	93	59.31

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	2.37	187	0.00
20	1.21	227	0.00
470	1.13	248	0.00
296	1.07	391	0.00
304	0.89	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	1.26	187	0.00
20	1.21	227	0.00
296	0.94	248	0.00
263	0.67	391	0.00
242	0.52	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	106.20	73.60	11.03
RV-2	PRV-1	86.70	ACTIVATED	119.29	86.70	48.38
RV-R1	PRV-1	93.20	ACTIVATED	125.54	93.20	38.18
RV-R2	PRV-1	52.00	ACTIVATED	85.02	52.00	58.33

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.96	
R-1	0.00	KAWC Tank
TANK-A	0.00	Old Tank
TANK-B	212.21	New Tank - P
TANK-C	302.26	Chinkapin Ta

NET SYSTEM INFLOW = 516.43
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 516.43

TANK STATUS REPORT (time = 61.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	0.00	1167.76	14.76	49968.	91.1		14.76

TANK-B(1) -212.21 1167.71 32.71 480541. 90.9 DRAINING 32.50
 TANK-C(1) -302.26 1168.55 35.55 751979. 93.6 DRAINING 35.34

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 61.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 61.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 61.250
 Switch Activated

P R E S S U R E S W I T C H E S A C T I V A T E D

REFERENCE PIPE AV-1 HAS CHANGED STATUS (opened) (time = 61.2500 hours)
 Time: 61.250
 Time: 61.500
 Time: 61.750
 Time: 62.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 62.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1154.000
 Time: 62.000

TIME FROM INITIATION OF EPS = 62.0000 HOURS (26.00PM, DAY: 2)

RESULTS OBTAINED AFTER 12 TRIALS: ACCURACY = 0.00004

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-8.55	0.00	0.00	0.05	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-15.43	0.73	0.00	0.39	0.24	0.24
123	192	207	40.63	0.07	0.00	0.26	0.04	0.04
169	5	1	-100.76	0.12	0.01	0.29	0.03	0.03
281	96	167	-18.45	0.75	0.00	0.47	0.25	0.25
284	167	34	11.35	0.43	0.00	0.29	0.13	0.13
320	89	192	32.51	0.07	0.00	0.21	0.03	0.03
328	239	107	8.55	0.00	0.00	0.02	0.00	0.00
338	89	I-AV-2	-27.06	0.00	0.00	0.08	0.00	0.00
341	291	167	45.40	0.01	0.00	0.13	0.01	0.01
348	253	89	5.45	0.00	0.00	0.02	0.00	0.00
469	291	339	152.24	0.20	0.00	0.43	0.06	0.06
473	338	339	-170.96	0.02	0.00	0.48	0.07	0.07

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\\$)	TOTAL COST (\\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.12(0.50)	1167.26	990.00	177.26	76.81
66	Keene 4 way	2.18(0.50)	1166.34	905.00	261.34	113.25
79	James Lane E	1.72(0.50)	1165.83	915.00	250.83	108.69
131	Drakes Ln EO	0.41(0.50)	1089.70	935.00	154.70	67.04
157	KY1267 EOL	0.68(0.50)	1089.69	840.00	249.69	108.20
173	Stirling Est	1.54(0.50)	1165.84	850.00	315.84	136.87
182	End of Parke	1.30(0.50)	1165.86	915.00	250.86	108.70
217	Bark Woods	1.30(0.50)	1090.02	960.00	130.02	56.34
233	Hagin EOL	0.59(0.50)	1089.67	940.00	149.67	64.86

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.36	137	52.00
173	136.87	200	52.00
53	126.39	O-RV-R2	52.00
178	126.15	287	56.31
I-RV-R1	126.15	217	56.34
60	125.53	96	58.04
133	121.20	18	58.48
318	121.20	15	58.69
323	121.19	238	59.17
171	119.70	295	59.37

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.00	187	0.00
20	0.86	227	0.00
470	0.60	199	0.00
296	0.56	391	0.00
281	0.25	225	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	0.86	187	0.00
303	0.55	227	0.00
296	0.49	199	0.00
281	0.25	391	0.00
467	0.24	225	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	106.74	73.64	0.00
RV-2	PRV-1	86.70	ACTIVATED	119.66	86.70	33.62
RV-R1	PRV-1	93.20	ACTIVATED	126.15	93.20	24.37
RV-R2	PRV-1	52.00	ACTIVATED	85.20	52.00	19.97

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.98	
R-1	0.00	KAWC Tank
TANK-A	10.40	Old Tank
TANK-B	27.06	New Tank - P
TANK-C	219.77	Chinkapin Ta

NET SYSTEM INFLOW = 258.22
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 258.22

TANK STATUS REPORT (time = 62.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-10.40	1167.44	14.44	48886.	89.2	DRAINING	14.40
TANK-B(1)	-27.06	1166.87	31.87	468074.	88.5	DRAINING	31.84
TANK-C(1)	-219.77	1167.73	34.73	734660.	91.4	DRAINING	34.58

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 62.250

CHANGES FOR NEXT SIMULATION (time = 62.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 62.250
 Time: 62.500
 Time: 62.750
 Time: 63.000

CHANGES FOR NEXT SIMULATION (time = 63.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1149.000
 Time: 63.000

TIME FROM INITIATION OF EPS = 63.0000 HOURS (27.00PM, DAY: 2)

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-12.91	0.01	0.00	0.08	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-15.42	0.73	0.00	0.39	0.24	0.24
123	192	207	73.41	0.22	0.01	0.47	0.11	0.11
169	5	1	-147.91	0.24	0.01	0.42	0.06	0.06
281	96	167	-17.31	0.67	0.00	0.44	0.22	0.22
284	167	34	11.61	0.45	0.00	0.30	0.14	0.14
320	89	192	67.28	0.26	0.00	0.43	0.13	0.12
328	239	107	12.91	0.00	0.00	0.04	0.00	0.00
338	89	I-AV-2	-150.30	0.00	0.00	0.43	0.06	0.06
341	291	167	44.59	0.01	0.00	0.13	0.01	0.01
348	253	89	-83.02	0.05	0.00	0.34	0.05	0.05
469	291	339	131.98	0.16	0.00	0.37	0.05	0.05
473	338	339	-147.67	0.02	0.00	0.42	0.06	0.06

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.18(0.75)	1166.70	990.00	176.70	76.57
66	Keene 4 way	3.26(0.75)	1165.25	905.00	260.25	112.78
79	James Lane E	2.58(0.75)	1164.17	915.00	249.17	107.97
131	Drakes Ln EO	0.61(0.75)	1089.34	935.00	154.34	66.88
157	KY1267 EOL	1.01(0.75)	1089.32	840.00	249.32	108.04
173	Stirling Est	2.31(0.75)	1164.20	850.00	314.20	136.15
182	End of Parke	1.95(0.75)	1164.22	915.00	249.22	108.00
217	Bark Woods	1.95(0.75)	1090.00	960.00	130.00	56.33
233	Hagin EOL	0.89(0.75)	1089.29	940.00	149.29	64.69

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.19	137	52.00
173	136.15	200	52.00
53	126.23	O-RV-R2	52.00

178	125.62	287	56.27
I-RV-R1	125.62	217	56.33
60	125.37	96	57.84
133	121.05	18	58.45
318	121.04	15	58.48
323	121.03	238	58.78
I-RV-2	119.24	295	59.36

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	1.75	187	0.00
20	0.81	227	0.00
296	0.66	391	0.00
470	0.49	225	0.00
304	0.43	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	0.94	187	0.00
20	0.81	227	0.00
296	0.59	391	0.00
263	0.39	225	0.00
242	0.30	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	106.27	73.60	3.83
RV-2	PRV-1	86.70	ACTIVATED	119.24	86.70	40.48
RV-R1	PRV-1	93.20	ACTIVATED	125.62	93.20	32.61
RV-R2	PRV-1	52.00	ACTIVATED	84.86	52.00	40.02

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.47	
R-1	0.00	KAWC Tank
TANK-A	38.17	Old Tank
TANK-B	150.30	New Tank - P
TANK-C	197.38	Chinkapin Ta

NET SYSTEM INFLOW = 387.32
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 387.32

TANK STATUS REPORT (time = 63.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-38.17	1167.06	14.06	47582.	86.8	DRAINING	13.89
TANK-B(1)	-150.30	1166.69	31.69	465483.	88.0	DRAINING	31.54
TANK-C(1)	-197.38	1167.19	34.19	723121.	90.0	DRAINING	34.05

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 63.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 63.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 63.250
Time: 63.500
Time: 63.750
Time: 64.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 64.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1144.000
Time: 64.000

TIME FROM INITIATION OF EPS = 64.0000 HOURS (28.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00029

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1 0 0 0 (ft/ft)	H L / 1 0 0 0 (ft/ft)
	#1	#2						
2	13	107	-21.54	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-23.13	1.55	0.00	0.59	0.50	0.50
123	192	207	127.82	0.63	0.02	0.82	0.32	0.31
169	5	1	-246.08	0.61	0.04	0.70	0.15	0.14
281	96	167	-25.00	1.32	0.00	0.64	0.44	0.44
284	167	34	17.54	0.96	0.00	0.45	0.30	0.30
320	89	192	120.89	0.77	0.01	0.77	0.37	0.36
328	239	107	21.54	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-293.10	0.01	0.00	0.83	0.20	0.20
341	291	167	66.10	0.02	0.00	0.19	0.01	0.01
348	253	89	-172.22	0.20	0.00	0.70	0.18	0.18
469	291	339	189.30	0.31	0.00	0.54	0.09	0.09
473	338	339	-211.49	0.04	0.00	0.60	0.11	0.11

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

N A M E	F L O W R A T E (gpm)	I N L E T H E A D (ft)	O U T L E T H E A D (ft)	P U M P H E A D (ft)	E F F I C - E N C Y (%)	U S E F U L P O W E R (Hp)	I N C R E M T L C O S T (\$)	T O T A L C O S T (\$)	# P U M P S P A R A L L E L	# P U M P S S E R I E S	N P S H
											A v a i l . (ft)

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1165.58	990.00	175.58	76.08
66	Keene 4 way	5.44(1.25)	1162.08	905.00	257.08	111.40
79	James Lane E	4.30(1.25)	1159.24	915.00	244.24	105.84
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1159.31	850.00	309.31	134.04
182	End of Parke	3.25(1.25)	1159.37	915.00	244.37	105.90
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	134.04	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	287	56.17
178	124.11	217	56.30
I-RV-R1	124.11	96	57.29
133	120.60	238	57.67
318	120.59	15	58.14
323	120.54	18	58.35
I-RV-2	118.02	93	59.06

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00
20	1.58	231	0.00
304	1.50	248	0.00
296	1.47	227	0.00
263	1.02	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
303	1.69	187	0.00
20	1.58	231	0.00
296	1.29	248	0.00
263	1.01	227	0.00
242	0.78	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	104.78	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	118.02	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	124.11	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	83.88	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	63.86	Old Tank
TANK-B	293.10	New Tank - P
TANK-C	286.12	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 64.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-63.86	1166.44	13.44	45498.	83.0	DRAINING	13.16
TANK-B(1)	-293.10	1166.08	31.08	456516.	86.3	DRAINING	30.78
TANK-C(1)	-286.12	1166.61	33.61	711021.	88.5	DRAINING	33.41

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 64.250

CHANGES FOR NEXT SIMULATION (time = 64.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 64.250
 Time: 64.500
 Time: 64.750
 Time: 65.000

CHANGES FOR NEXT SIMULATION (time = 65.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1142.000
 Time: 65.000

TIME FROM INITIATION OF EPS = 65.0000 HOURS (29.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-34.47	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00

120	124	167	-36.21	3.55	0.00	0.92	1.14	1.14
123	192	207	206.52	1.52	0.04	1.32	0.77	0.75
169	5	1	-393.58	1.45	0.09	1.12	0.37	0.35
281	96	167	-38.82	2.98	0.00	0.99	1.00	1.00
284	167	34	27.50	2.20	0.01	0.70	0.69	0.69
320	89	192	196.66	1.89	0.04	1.26	0.92	0.90
328	239	107	34.47	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-482.98	0.02	0.00	1.37	0.51	0.51
341	291	167	103.20	0.05	0.01	0.29	0.03	0.03
348	253	89	-286.32	0.51	0.00	1.17	0.47	0.47
469	291	339	294.38	0.69	0.00	0.84	0.20	0.20
473	338	339	-328.78	0.08	0.00	0.93	0.25	0.25

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1163.38	990.00	173.38	75.13
66	Keene 4 way	8.70(2.00)	1155.12	905.00	250.12	108.39
79	James Lane E	6.88(2.00)	1148.31	915.00	233.31	101.10
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1148.47	850.00	298.47	129.34
182	End of Parke	5.20(2.00)	1148.62	915.00	233.62	101.23
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	129.34	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	238	55.25
178	120.77	287	55.92
I-RV-R1	120.77	96	56.16
133	119.59	217	56.23
318	119.55	15	57.54
323	119.44	192	57.98
276	116.78	93	58.02

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00

304	4.11	248	0.00
20	3.55	213	0.00
296	3.42	391	0.00
263	2.45	227	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	3.55	187	0.00
303	3.49	248	0.00
296	2.97	213	0.00
263	2.40	391	0.00
242	1.86	227	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.51	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	115.34	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	120.77	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	81.77	52.00	128.08

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	100.33	Old Tank
TANK-B	482.98	New Tank - P
TANK-C	445.63	Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 1032.86

TANK STATUS REPORT (time = 65.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-100.33	1165.42	12.42	42034.	76.7	DRAINING	11.98
TANK-B(1)	-482.98	1164.91	29.91	439322.	83.1	DRAINING	29.42
TANK-C(1)	-445.63	1165.77	32.77	693093.	86.2	DRAINING	32.45

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 65.250

CHANGES FOR NEXT SIMULATION (time = 65.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 65.250
 Time: 65.500

Time: 65.750
 Time: 66.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 66.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
 Time: 66.000

TIME FROM INITIATION OF EPS = 66.0000 HOURS (30.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00019

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-34.45	0.04	0.00	0.22	0.03	0.03
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-37.71	3.83	0.00	0.96	1.23	1.23
123	192	207	203.75	1.48	0.04	1.30	0.76	0.74
169	5	1	-394.11	1.46	0.09	1.12	0.37	0.35
281	96	167	-41.13	3.32	0.00	1.05	1.11	1.11
284	167	34	28.56	2.36	0.01	0.73	0.74	0.74
320	89	192	192.05	1.81	0.03	1.23	0.88	0.86
328	239	107	34.45	0.01	0.00	0.10	0.00	0.00
338	89	I-AV-2	-461.60	0.01	0.00	1.31	0.46	0.46
341	291	167	108.08	0.05	0.01	0.31	0.04	0.03
348	253	89	-269.56	0.45	0.00	1.10	0.42	0.42
469	291	339	321.49	0.81	0.00	0.91	0.24	0.24
473	338	339	-359.39	0.10	0.00	1.02	0.29	0.29

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.47(2.00)	1161.89	990.00	171.89	74.48
66	Keene 4 way	8.70(2.00)	1153.43	905.00	248.43	107.65
79	James Lane E	6.88(2.00)	1146.61	915.00	231.61	100.37
131	Drakes Ln EO	1.62(2.00)	1085.90	935.00	150.90	65.39
157	KY1267 EOL	2.70(2.00)	1085.83	840.00	245.83	106.52
173	Stirling Est	6.15(2.00)	1146.77	850.00	296.77	128.60

182	End of Parke	5.20(2.00)	1146.92	915.00	231.92	100.50
217	Bark Woods	5.20(2.00)	1089.77	960.00	129.77	56.23
233	Hagin EOL	2.37(2.00)	1085.62	940.00	145.62	63.10

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	147.60	137	51.98
173	128.60	200	51.98
53	124.65	O-RV-R2	52.00
60	123.82	238	54.52
178	120.04	96	55.44
I-RV-R1	120.04	287	55.92
133	119.59	217	56.23
318	119.55	15	56.89
323	119.44	192	57.22
276	116.78	16	57.62

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	6.80	187	0.00
304	4.11	248	0.00
20	3.88	213	0.00
296	3.59	231	0.00
470	2.82	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	3.88	187	0.00
303	3.49	248	0.00
296	3.12	213	0.00
263	2.40	231	0.00
242	1.86	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	100.77	73.60	33.20
RV-2	PRV-1	86.70	ACTIVATED	114.61	86.70	84.49
RV-R1	PRV-1	93.20	ACTIVATED	120.04	93.20	66.07
RV-R2	PRV-1	52.00	ACTIVATED	81.04	52.00	128.08

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	3.92	
R-1	0.00	KAWC Tank
TANK-A	86.21	Old Tank
TANK-B	461.60	New Tank - P
TANK-C	481.12	Chinkapin Ta

NET SYSTEM INFLOW = 1032.86
 NET SYSTEM OUTFLOW = 0.00

TANK STATUS REPORT (time = 66.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-86.21	1163.77	10.77	36433.	66.5	DRAINING	10.38
TANK-B(1)	-461.60	1162.97	27.97	410842.	77.7	DRAINING	27.50
TANK-C(1)	-481.12	1164.46	31.46	665438.	82.8	DRAINING	31.12

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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Time: 66.250

CHANGES FOR NEXT SIMULATION (time = 66.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 66.250
Time: 66.500
Time: 66.750
Time: 67.000

CHANGES FOR NEXT SIMULATION (time = 67.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1112.000
Time: 67.000

TIME FROM INITIATION OF EPS = 67.0000 HOURS (31.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00024

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
	#1	#2						
2	13	107	-25.81	0.03	0.00	0.16	0.02	0.02
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-31.54	2.75	0.00	0.81	0.89	0.89
123	192	207	146.90	0.81	0.02	0.94	0.41	0.40
169	5	1	-296.60	0.86	0.05	0.84	0.22	0.20
281	96	167	-35.73	2.56	0.00	0.91	0.86	0.86
284	167	34	23.71	1.67	0.01	0.61	0.53	0.52
320	89	192	134.34	0.93	0.02	0.86	0.45	0.44
328	239	107	25.81	0.01	0.00	0.07	0.00	0.00
338	89	I-AV-2	-296.92	0.01	0.00	0.84	0.21	0.21
341	291	167	91.49	0.04	0.00	0.26	0.03	0.02
348	253	89	-162.58	0.18	0.00	0.66	0.16	0.16
469	291	339	289.64	0.67	0.00	0.82	0.20	0.20
473	338	339	-324.33	0.08	0.00	0.92	0.24	0.24

FOLLOWING ADDITIONAL PIPES ARE CLOSED :
98 133 212 336 337

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.35(1.50)	1161.24	990.00	171.24	74.20
66	Keene 4 way	6.53(1.50)	1155.92	905.00	250.92	108.73
79	James Lane E	5.16(1.50)	1151.93	915.00	236.93	102.67
131	Drakes Ln EO	1.22(1.50)	1087.60	935.00	152.60	66.13
157	KY1267 EOL	2.03(1.50)	1087.55	840.00	247.55	107.27
173	Stirling Est	4.61(1.50)	1152.03	850.00	302.03	130.88
182	End of Parke	3.90(1.50)	1152.11	915.00	237.11	102.75
217	Bark Woods	3.90(1.50)	1089.88	960.00	129.88	56.28
233	Hagin EOL	1.77(1.50)	1087.44	940.00	147.44	63.89

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.39	137	51.99
173	130.88	200	51.99
53	125.43	O-RV-R2	52.00
60	124.59	209	52.87
178	121.35	I-Pump-1	52.87
I-RV-R1	121.35	I-Pump-2	52.87
133	120.31	R-1	55.03
318	120.29	238	55.18
323	120.23	96	55.19
276	116.86	287	56.10

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	4.23	187	0.00
20	2.93	248	0.00
296	2.44	227	0.00
304	2.24	391	0.00
470	2.21	213	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.93	187	0.00
303	2.21	248	0.00
296	2.13	227	0.00
263	1.41	391	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.04	73.60	22.69
RV-2	PRV-1	86.70	ACTIVATED	115.46	86.70	65.91
RV-R1	PRV-1	93.20	ACTIVATED	121.35	93.20	51.61
RV-R2	PRV-1	52.00	ACTIVATED	81.49	52.00	93.67

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.94	
R-1	0.00	KAWC Tank
TANK-A	48.73	Old Tank
TANK-B	296.92	New Tank - P
TANK-C	426.06	Chinkapin Ta

NET SYSTEM INFLOW = 774.64
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 774.65

TANK STATUS REPORT (time = 67.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-48.73	1162.26	9.26	31328.	57.1	DRAINING	9.04
TANK-B(1)	-296.92	1161.11	26.11	383558.	72.5	DRAINING	25.81
TANK-C(1)	-426.06	1163.07	30.07	636091.	79.1	DRAINING	29.77

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

=====
 Time: 67.250

CHANGES FOR NEXT SIMULATION (time = 67.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 67.250
 Time: 67.500
 Time: 67.750
 Time: 68.000

CHANGES FOR NEXT SIMULATION (time = 68.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1112.000

Time: 68.000

TIME FROM INITIATION OF EPS = 68.0000 HOURS (32.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00029

PIPELINE RESULTS

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-21.49	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-28.32	2.25	0.00	0.72	0.73	0.73
123	192	207	118.33	0.54	0.01	0.76	0.28	0.27
169	5	1	-247.80	0.62	0.04	0.70	0.16	0.15
281	96	167	-32.66	2.17	0.00	0.83	0.73	0.73
284	167	34	21.18	1.36	0.01	0.54	0.43	0.42
320	89	192	105.54	0.60	0.01	0.67	0.29	0.28
328	239	107	21.49	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-212.83	0.00	0.00	0.60	0.11	0.11
341	291	167	82.59	0.03	0.00	0.23	0.02	0.02
348	253	89	-107.28	0.08	0.00	0.44	0.08	0.08
469	291	339	259.58	0.55	0.00	0.74	0.16	0.16
473	338	339	-290.83	0.07	0.00	0.82	0.20	0.20

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

PUMP/LOSS ELEMENT RESULTS

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

NODE RESULTS

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1160.39	990.00	170.39	73.84
66	Keene 4 way	5.44(1.25)	1156.41	905.00	251.41	108.94
79	James Lane E	4.30(1.25)	1153.58	915.00	238.58	103.38
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1153.64	850.00	303.64	131.58
182	End of Parke	3.25(1.25)	1153.71	915.00	238.71	103.44
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

MAXIMUM AND MINIMUM VALUES

PRESSURES

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
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322	148.71	137	51.99
173	131.58	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	209	52.87
178	121.65	I-Pump-1	52.87
I-RV-R1	121.65	I-Pump-2	52.87
133	120.60	96	54.86
318	120.59	R-1	55.03
323	120.54	238	55.22
276	116.89	15	55.94

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00
20	2.54	248	0.00
296	1.96	227	0.00
470	1.79	391	0.00
304	1.50	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.54	187	0.00
296	1.71	248	0.00
303	1.69	227	0.00
263	1.01	391	0.00
467	0.82	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.33	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	115.57	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	121.65	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	81.44	52.00	76.16

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	48.31	Old Tank
TANK-B	212.83	New Tank - P
TANK-C	381.95	Chinkapin Ta

NET SYSTEM INFLOW = 645.54
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 645.54

TANK STATUS REPORT (time = 68.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-48.31	1161.24	8.24	27896.	50.9	DRAINING	8.03
TANK-B(1)	-212.83	1159.91	24.91	365866.	69.2	DRAINING	24.69
TANK-C(1)	-381.95	1161.88	28.88	610912.	76.0	DRAINING	28.61

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Time: 68.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 68.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 68.250
Time: 68.500
Time: 68.750
Time: 69.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 69.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1121.000
Time: 69.000

TIME FROM INITIATION OF EPS = 69.0000 HOURS (33.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00029

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	N O D E N U M B E R S		F L O W R A T E (gpm)	H E A D L O S S (ft)	M I N O R L O S S (ft)	L I N E V E L O . (ft/s)	H L + M L / 1000 (ft/ft)	H L / 1000 (ft/ft)
	#1	#2						
2	13	107	-21.49	0.02	0.00	0.14	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-27.62	2.15	0.00	0.71	0.69	0.69
123	192	207	119.32	0.55	0.01	0.76	0.28	0.27
169	5	1	-247.64	0.62	0.04	0.70	0.16	0.15
281	96	167	-31.69	2.05	0.00	0.81	0.69	0.69
284	167	34	20.70	1.30	0.01	0.53	0.41	0.41
320	89	192	107.07	0.61	0.01	0.68	0.30	0.29
328	239	107	21.49	0.00	0.00	0.06	0.00	0.00
338	89	I-AV-2	-221.29	0.00	0.00	0.63	0.12	0.12
341	291	167	80.43	0.03	0.00	0.23	0.02	0.02
348	253	89	-114.22	0.09	0.00	0.47	0.09	0.09
469	291	339	246.97	0.50	0.00	0.70	0.15	0.15
473	338	339	-276.59	0.06	0.00	0.78	0.18	0.18

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.30(1.25)	1159.40	990.00	169.40	73.41
66	Keene 4 way	5.44(1.25)	1155.48	905.00	250.48	108.54
79	James Lane E	4.30(1.25)	1152.65	915.00	237.65	102.98
131	Drakes Ln EO	1.01(1.25)	1088.29	935.00	153.29	66.43
157	KY1267 EOL	1.69(1.25)	1088.26	840.00	248.26	107.58
173	Stirling Est	3.84(1.25)	1152.71	850.00	302.71	131.18
182	End of Parke	3.25(1.25)	1152.78	915.00	237.78	103.04
217	Bark Woods	3.25(1.25)	1089.93	960.00	129.93	56.30
233	Hagin EOL	1.48(1.25)	1088.17	940.00	148.17	64.21

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.71	137	51.99
173	131.18	200	51.99
53	125.75	O-RV-R2	52.00
60	124.90	96	54.45
178	121.25	238	54.81
I-RV-R1	121.25	15	55.51
133	120.60	287	56.17
318	120.59	217	56.30
323	120.54	192	56.40
276	116.89	16	56.61

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
303	3.21	187	0.00
20	2.44	230	0.00
296	1.91	248	0.00
470	1.64	227	0.00
304	1.50	391	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	2.44	187	0.00
303	1.69	230	0.00
296	1.67	248	0.00
263	1.01	227	0.00
467	0.79	391	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	101.92	73.60	17.10
RV-2	PRV-1	86.70	ACTIVATED	115.17	86.70	56.95
RV-R1	PRV-1	93.20	ACTIVATED	121.25	93.20	44.69
RV-R2	PRV-1	52.00	ACTIVATED	81.04	52.00	76.16

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	2.45	
R-1	0.00	KAWC Tank
TANK-A	56.25	Old Tank
TANK-B	221.29	New Tank - P
TANK-C	365.55	Chinkapin Ta
NET SYSTEM INFLOW = 645.54		
NET SYSTEM OUTFLOW = 0.00		
NET SYSTEM DEMAND = 645.54		

T A N K S T A T U S R E P O R T (time = 69.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A (1)	-56.25	1160.31	7.31	24725.	45.1	DRAINING	7.06
TANK-B (1)	-221.29	1159.03	24.03	352905.	66.7	DRAINING	23.80
TANK-C (1)	-365.55	1160.82	27.82	588459.	73.2	DRAINING	27.56

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 69.250

C H A N G E S F O R N E X T S I M U L A T I O N (time = 69.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 69.250
 Time: 69.500
 Time: 69.750
 Time: 70.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 70.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kw-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1131.000
 Time: 70.000

TIME FROM INITIATION OF EPS = 70.0000 HOURS (34.00PM, DAY: 2)

RESULTS OBTAINED AFTER 8 TRIALS: ACCURACY = 0.00039

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

PIPE NAME	NODE NUMBERS #1 #2	FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/1000 (ft/ft)	HL/1000 (ft/ft)
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2	13	107	-17.18	0.01	0.00	0.11	0.01	0.01
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-24.34	1.70	0.00	0.62	0.55	0.55
123	192	207	91.51	0.34	0.01	0.58	0.17	0.17
169	5	1	-198.73	0.41	0.02	0.56	0.10	0.10
281	96	167	-28.40	1.67	0.00	0.72	0.56	0.56
284	167	34	18.13	1.02	0.00	0.46	0.32	0.32
320	89	192	79.66	0.35	0.01	0.51	0.17	0.17
328	239	107	17.18	0.00	0.00	0.05	0.00	0.00
338	89	I-AV-2	-143.82	0.00	0.00	0.41	0.05	0.05
341	291	167	71.20	0.02	0.00	0.20	0.02	0.01
348	253	89	-64.16	0.03	0.00	0.26	0.03	0.03
469	291	339	223.76	0.42	0.00	0.63	0.12	0.12
473	338	339	-250.83	0.05	0.00	0.71	0.15	0.15

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98	133	212	336	337
474				

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (\$)	TOTAL COST (\$)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.24	1158.68	990.00	168.68	73.09
66	Keene 4 way	4.35	1155.91	905.00	250.91	108.73
79	James Lane E	3.44	1154.05	915.00	239.05	103.59
131	Drakes Ln EO	0.81	1088.87	935.00	153.87	66.68
157	KY1267 EOL	1.35	1088.85	840.00	248.85	107.83
173	Stirling Est	3.07	1154.09	850.00	304.09	131.77
182	End of Parke	2.60	1154.14	915.00	239.14	103.63
217	Bark Woods	2.60	1089.97	960.00	129.97	56.32
233	Hagin EOL	1.18	1088.79	940.00	148.79	64.48

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	148.98	137	52.00
173	131.77	200	52.00
53	126.01	O-RV-R2	52.00
60	125.16	96	54.18
178	121.51	238	54.86
I-RV-R1	121.51	15	55.12
133	120.85	192	56.18
318	120.84	287	56.23
323	120.81	217	56.32
276	116.91	16	56.33

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000	PIPE NUMBER	MINIMUM HL+ML/1000
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	(ft/ft)		(ft/ft)
303	2.37	187	0.00
20	1.99	227	0.00
296	1.44	248	0.00
470	1.33	391	0.00
304	0.89	103	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.99	187	0.00
296	1.27	227	0.00
303	1.26	248	0.00
263	0.67	391	0.00
467	0.61	103	0.00

REGULATING VALVE REPORT

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	ACTIVATED	102.17	73.60	11.03
RV-2	PRV-1	86.70	ACTIVATED	115.27	86.70	48.38
RV-R1	PRV-1	93.20	ACTIVATED	121.51	93.20	38.18
RV-R2	PRV-1	52.00	ACTIVATED	81.00	52.00	58.33

SUMMARY OF INFLOWS AND OUTFLOWS

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	1.96	
R-1	0.00	KAWC-Tank
TANK-A	41.79	Old Tank
TANK-B	143.82	New Tank - P
TANK-C	328.86	Chinkapin Ta

NET SYSTEM INFLOW = 516.43
 NET SYSTEM OUTFLOW = 0.00
 NET SYSTEM DEMAND = 516.43

TANK STATUS REPORT (time = 70.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-41.79	1159.31	6.31	21338.	38.9	DRAINING	6.12
TANK-B(1)	-143.82	1158.11	23.11	339470.	64.2	DRAINING	22.96
TANK-C(1)	-328.86	1159.79	26.79	566696.	70.5	DRAINING	26.56

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

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 Time: 70.250

CHANGES FOR NEXT SIMULATION (time = 70.2500 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

Time: 70.250
 Time: 70.500
 Time: 70.750
 Time: 71.000

C H A N G E S F O R N E X T S I M U L A T I O N (time = 71.0000 hours)

UNIT COST OF POWER FOR THIS SIMULATION PERIOD = 0.050 \$/kW-Hr

JUNCTION DEMANDS CHANGED - PLEASE SEE RESULTS TABLE

TANK at node R-1 has a new HGL of 1140.000
 Time: 71.000

TIME FROM INITIATION OF EPS = 71.0000 HOURS (35.00PM, DAY: 2)

RESULTS OBTAINED AFTER 14 TRIALS: ACCURACY = 0.00062

P I P E L I N E R E S U L T S

STATUS CODE: XX -CLOSED PIPE CV -CHECK VALVE

P I P E N A M E	NODE NUMBERS		FLOWRATE (gpm)	HEAD LOSS (ft)	MINOR LOSS (ft)	LINE VELO. (ft/s)	HL+ML/ 1000 (ft/ft)	HL/ 1000 (ft/ft)
	#1	#2						
2	13	107	-3.76	0.00	0.00	0.02	0.00	0.00
3	208	107	0.00	0.00	0.00	0.00	0.00	0.00
120	124	167	-16.60	0.84	0.00	0.42	0.27	0.27
123	192	207	-13.21	0.01	0.00	0.08	0.00	0.00
169	5	1	-68.99	0.06	0.00	0.20	0.01	0.01
281	96	167	-20.73	0.93	0.00	0.53	0.31	0.31
284	167	34	11.90	0.47	0.00	0.30	0.15	0.15
320	89	192	-29.63	0.06	0.00	0.19	0.03	0.03
328	239	107	3.76	0.00	0.00	0.01	0.00	0.00
338	89	I-AV-2	119.66	0.00	0.00	0.34	0.04	0.04
341	291	167	49.32	0.01	0.00	0.14	0.01	0.01
348	253	89	90.03	0.06	0.00	0.37	0.05	0.05
469	291	339	173.28	0.26	0.00	0.49	0.08	0.08
473	338	339	-195.11	0.03	0.00	0.55	0.09	0.09

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

98 133 212 336 337
 474

P U M P / L O S S E L E M E N T R E S U L T S

NAME	FLOWRATE (gpm)	INLET HEAD (ft)	OUTLET HEAD (ft)	PUMP HEAD (ft)	EFFIC- ENCY (%)	USEFUL POWER (Hp)	INCREMTL COST (%)	TOTAL COST (%)	#PUMPS PARALLEL	#PUMPS SERIES	NPSH Avail. (ft)
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FOLLOWING ADDITIONAL PIPES ARE CLOSED :

FOLLOWING ADDITIONAL PIPES ARE CLOSED :

N O D E R E S U L T S

NODE NAME	NODE TITLE	EXTERNAL DEMAND (gpm)	HYDRAULIC GRADE (ft)	NODE ELEVATION (ft)	PRESSURE HEAD (ft)	NODE PRESSURE (psi)
36	Catnip Hill	0.06(0.25)	1158.37	990.00	168.37	72.96
66	Keene 4 way	1.09(0.25)	1157.59	905.00	252.59	109.45
79	James Lane E	0.86(0.25)	1157.45	915.00	242.45	105.06

131	Drakes Ln EO	0.20(0.25)	1089.95	935.00	154.95	67.14
157	KY1267 EOL	0.34(0.25)	1089.95	840.00	249.95	108.31
173	Stirling Est	0.77(0.25)	1157.45	850.00	307.45	133.23
182	End of Parke	0.65(0.25)	1157.45	915.00	242.45	105.06
217	Bark Woods	0.65(0.25)	1090.04	960.00	130.04	56.35
233	Hagin EOL	0.30(0.25)	1089.94	940.00	149.94	64.97

M A X I M U M A N D M I N I M U M V A L U E S

P R E S S U R E S

JUNCTION NUMBER	MAXIMUM PRESSURES (psi)	JUNCTION NUMBER	MINIMUM PRESSURES (psi)
322	149.47	137	52.01
173	133.23	200	52.01
53	126.51	O-RV-R2	52.01
60	125.64	96	54.12
178	122.42	15	54.82
I-RV-R1	122.42	238	55.33
318	121.31	192	56.17
133	121.31	16	56.28
323	121.31	287	56.34
276	117.01	217	56.35

H L + M L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL+ML/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL+ML/1000 (ft/ft)
20	1.05	198	0.00
470	0.75	269	0.00
296	0.61	356	0.00
281	0.31	199	0.00
303	0.31	424	0.00

H L / 1 0 0 0

PIPE NUMBER	MAXIMUM HL/1000 (ft/ft)	PIPE NUMBER	MINIMUM HL/1000 (ft/ft)
20	1.05	198	0.00
296	0.54	269	0.00
281	0.31	356	0.00
467	0.27	199	0.00
120	0.27	424	0.00

R E G U L A T I N G V A L V E R E P O R T

VALVE LABEL	VALVE TYPE	VALVE SETTING (psi or gpm)	VALVE STATUS	UPSTREAM PRESSURE (psi)	DOWNSTREAM PRESSURE (psi)	THROUGH FLOW (gpm)
RV-1	PRV-1	73.60	CLOSED	102.95	73.68	0.00
RV-2	PRV-1	86.70	ACTIVATED	115.89	86.70	25.74
RV-R1	PRV-1	93.20	ACTIVATED	122.42	93.20	13.24
RV-R2	PRV-1	52.00	CLOSED	81.36	52.01	0.00

S U M M A R Y O F I N F L O W S A N D O U T F L O W S

(+) INFLOWS INTO THE SYSTEM FROM SUPPLY NODES
 (-) OUTFLOWS FROM THE SYSTEM INTO SUPPLY NODES

NODE NAME	FLOWRATE (gpm)	NODE TITLE
FGN-BB	0.49	
R-1	0.00	KAWC Tank
TANK-A	2.14	Old Tank
TANK-B	-119.66	New Tank - P
TANK-C	246.14	Chinkapin Ta

NET SYSTEM INFLOW = 248.77
NET SYSTEM OUTFLOW = -119.66
NET SYSTEM DEMAND = 129.11

TANK STATUS REPORT (time = 71.0000 hours)

TANK NAME (*)	NET FLOW (gpm)	WATER ELEVATION (ft)	TANK DEPTH (ft)	TANK VOLUME (gal)	TANK VOLUME (%)	TANK STATUS	PROJECTED DEPTH (ft)
TANK-A(1)	-2.14	1158.51	5.51	18653.	34.0	DRAINING	5.50
TANK-B(1)	119.66	1157.49	22.49	330393.	62.5	FILLING	22.61
TANK-C(1)	-246.14	1158.89	25.89	547590.	68.1	DRAINING	25.71

* TANK TYPE: (1) - CONSTANT DIAMETER (2) - VARIABLE AREA

Max/Min Summary

Summary of Max/Min Node Values

Node	MnPres	MnHead	MnHGL	MnTime	MxPres	MxHead	MxHGL	MxTime	Elevation
1	71.92	165.98	1150.98	18.00	88.43	204.06	1189.06	2.75	985.0
2	74.47	171.86	1151.86	18.00	89.57	206.69	1186.69	2.75	980.0
3	74.39	171.67	1148.67	18.00	95.29	219.90	1196.90	2.75	977.0
4	65.86	151.99	1148.99	18.00	85.98	198.43	1195.43	2.75	997.0
5	64.75	149.43	1149.43	18.00	84.05	193.97	1193.97	2.75	1000.0
6	77.38	178.56	1148.56	18.00	99.35	229.27	1199.27	2.75	970.0
7	64.39	148.60	1148.60	18.00	85.98	198.42	1198.42	2.75	1000.0
8	55.74	128.63	1148.63	18.00	77.18	178.12	1198.12	2.75	1020.0
9	77.36	178.52	1148.52	18.00	100.05	230.88	1200.88	2.75	970.0
10	64.37	148.55	1148.55	18.00	86.59	199.82	1199.82	2.75	1000.0
11	55.72	128.58	1148.58	18.00	77.38	178.56	1198.56	2.75	1020.0
12	83.83	193.45	1148.45	18.00	108.42	250.20	1205.20	2.75	955.0
13	95.98	221.48	1148.48	18.00	120.78	278.73	1205.73	2.75	927.0
14	78.18	180.42	1148.42	18.00	102.79	237.20	1205.20	2.75	968.0
15	53.69	123.91	1155.91	18.00	61.97	143.00	1175.00	2.75	1032.0
16	54.41	125.57	1153.57	18.00	67.00	154.61	1182.61	2.75	1028.0
17	73.98	170.73	1149.73	18.00	88.69	204.66	1183.66	2.75	979.0
18	58.13	134.13	1089.13	6.00	58.53	135.06	1090.06	2.75	955.0
19	60.63	139.91	1088.91	6.00	61.13	141.06	1090.06	2.75	949.0
20	94.00	216.93	1086.93	6.00	95.36	220.06	1090.06	2.75	870.0
21	86.56	199.75	1086.75	6.00	87.99	203.06	1090.06	2.75	887.0
22	86.56	199.75	1086.75	6.00	87.99	203.06	1090.06	2.75	887.0
23	90.83	209.61	1086.61	6.00	92.32	213.06	1090.06	2.75	877.0
24	90.83	209.61	1086.61	6.00	92.32	213.06	1090.06	2.75	877.0
25	93.83	216.53	1086.53	6.00	95.36	220.06	1090.06	2.75	870.0
26	93.83	216.53	1086.53	6.00	95.36	220.06	1090.06	2.75	870.0
27	66.25	152.88	1088.88	6.00	66.76	154.06	1090.06	2.75	936.0
28	70.16	161.90	1088.90	6.00	70.66	163.06	1090.06	2.75	927.0
29	80.70	186.22	1086.22	6.00	82.36	190.05	1090.05	2.75	900.0
30	81.42	187.90	1085.90	6.00	83.22	192.05	1090.05	2.75	898.0
31	74.39	171.68	1148.68	18.00	95.18	219.64	1196.64	2.75	977.0
32	91.52	211.21	1086.21	6.00	93.19	215.05	1090.05	0.00	875.0
33	66.15	152.65	1148.65	18.00	86.84	200.39	1196.39	2.75	996.0
34	69.12	159.50	1154.50	18.00	78.19	180.43	1175.43	2.75	995.0
35	81.92	189.05	1089.05	6.00	82.36	190.06	1090.06	2.75	900.0
36	71.28	164.50	1154.50	18.00	80.35	185.43	1175.43	2.75	990.0
37	70.73	163.22	1153.22	18.00	81.95	189.11	1179.11	2.75	990.0
38	71.35	164.65	1148.65	18.00	92.03	212.37	1196.37	2.75	984.0
39	70.91	163.64	1148.64	18.00	91.57	211.31	1196.31	2.75	985.0
40	67.87	156.62	1148.62	18.00	88.47	204.17	1196.17	2.75	992.0
41	70.47	162.62	1148.62	18.00	91.06	210.15	1196.15	2.75	986.0
42	69.60	160.61	1148.61	18.00	90.17	208.09	1196.09	2.75	988.0
43	66.13	152.61	1148.61	18.00	86.69	200.06	1196.06	2.75	996.0
44	77.31	178.41	1148.41	18.00	101.92	235.20	1205.20	2.75	970.0
45	77.57	179.01	1089.01	6.00	78.03	180.06	1090.06	2.75	910.0
46	78.28	180.65	1148.65	18.00	99.16	228.82	1196.82	2.75	968.0
47	68.32	157.66	1148.66	18.00	89.06	205.53	1196.53	2.75	991.0
48	75.27	173.70	1148.70	18.00	95.78	221.03	1196.03	2.75	975.0
49	72.32	166.89	1086.89	6.00	73.69	170.06	1090.06	2.75	920.0

50	70.47	162.63	1148.63	18.00	90.94	209.86	1195.86	2.75	986.0
51	65.40	150.92	1085.92	6.00	67.19	155.05	1090.05	2.75	935.0
52	90.38	208.57	1148.57	18.00	112.81	260.34	1200.34	2.75	940.0
53	124.65	287.65	1085.65	6.00	126.56	292.05	1090.05	2.75	798.0
54	74.37	171.63	1085.63	6.00	76.29	176.05	1090.05	0.00	914.0
55	86.94	200.62	1085.62	6.00	88.86	205.05	1090.05	0.00	885.0
56	110.79	255.66	1085.66	6.00	112.69	260.05	1090.05	0.00	830.0
57	110.79	255.67	1085.67	6.00	112.69	260.05	1090.05	0.00	830.0
58	112.96	260.68	1085.68	6.00	114.86	265.05	1090.05	0.00	825.0
59	97.92	225.97	1145.97	18.00	116.01	267.71	1187.71	2.75	920.0
60	123.82	285.74	1085.74	6.00	125.69	290.05	1090.05	0.00	800.0
61	82.32	189.98	1085.98	6.00	84.09	194.05	1090.05	0.00	896.0
62	95.80	221.07	1086.07	6.00	97.52	225.05	1090.05	0.00	865.0
63	82.74	190.95	1085.95	6.00	84.52	195.05	1090.05	0.00	895.0
64	85.30	196.86	1085.86	6.00	87.12	201.05	1090.05	0.00	889.0
65	93.36	215.44	1088.44	6.00	94.06	217.07	1090.07	0.00	873.0
66	104.45	241.04	1146.04	18.00	122.50	282.69	1187.69	2.75	905.0
67	67.79	156.45	1148.45	18.00	87.16	201.13	1193.13	2.75	992.0
68	83.83	193.46	1148.46	18.00	102.38	236.26	1191.26	2.75	955.0
69	79.73	184.00	1139.00	6.00	79.73	184.00	1139.00	0.00	955.0
70	89.53	206.62	1146.62	18.00	109.11	251.80	1191.80	2.75	940.0
71	91.62	211.43	1146.43	18.00	110.87	255.86	1190.86	2.75	935.0
72	84.99	196.14	1146.14	18.00	104.71	241.65	1191.65	2.75	950.0
73	93.48	215.73	1145.73	18.00	113.28	261.43	1191.43	2.75	930.0
74	89.18	205.80	1145.80	18.00	108.97	251.48	1191.48	2.75	940.0
75	89.10	205.62	1145.62	18.00	108.85	251.19	1191.19	2.75	940.0
76	72.18	166.57	1146.57	18.00	91.41	210.95	1190.95	2.75	980.0
77	76.12	175.67	1145.67	18.00	95.74	220.94	1190.94	2.75	970.0
78	91.62	211.43	1139.43	18.00	113.93	262.92	1190.92	2.75	928.0
79	97.16	224.22	1139.22	18.00	119.56	275.92	1190.92	2.75	915.0
80	86.00	198.47	1145.47	18.00	104.64	241.48	1188.48	2.75	947.0
81	79.56	183.61	1148.61	18.00	100.67	232.32	1197.32	2.75	965.0
82	71.11	164.09	1086.09	6.00	72.82	168.05	1090.05	0.00	922.0
83	74.97	173.00	1086.00	6.00	76.72	177.05	1090.05	0.00	913.0
84	86.06	198.60	1148.60	18.00	107.67	248.46	1198.46	2.75	950.0
85	77.39	178.60	1148.60	18.00	98.82	228.06	1198.06	2.75	970.0
86	91.96	212.21	1147.21	18.00	110.93	256.00	1191.00	2.75	935.0
87	68.69	158.51	1148.51	18.00	89.17	205.79	1195.79	2.75	990.0
88	66.59	153.68	1148.68	18.00	87.08	200.95	1195.95	2.75	995.0
89	64.78	149.48	1154.48	18.00	77.74	179.40	1184.40	2.75	1005.0
90	77.35	178.51	1148.51	18.00	95.71	220.86	1190.86	2.75	970.0
91	58.89	135.90	1085.90	6.00	60.69	140.05	1090.05	2.75	950.0
92	79.56	183.61	1148.61	18.00	100.65	232.28	1197.28	2.75	965.0
93	58.02	133.90	1085.90	6.00	59.82	138.05	1090.05	2.75	952.0
94	79.56	183.60	1146.60	18.00	98.75	227.88	1190.88	2.75	963.0
95	67.87	156.61	1146.61	18.00	87.07	200.93	1190.93	2.75	990.0
96	52.24	120.55	1153.55	18.00	64.65	149.20	1182.20	2.75	1033.0
97	82.31	189.95	1147.95	18.00	101.91	235.18	1193.18	2.75	958.0
98	60.06	138.60	1148.60	18.00	81.63	188.38	1198.38	2.75	1010.0
99	60.05	138.57	1148.57	18.00	81.79	188.75	1198.75	2.75	1010.0
100	55.72	128.58	1148.58	18.00	77.38	178.56	1198.56	2.75	1020.0
101	68.69	158.52	1148.52	18.00	91.41	210.94	1200.94	2.75	990.0
102	75.19	173.51	1148.51	18.00	98.40	227.07	1202.07	2.75	975.0
103	79.53	183.52	1148.52	18.00	102.22	235.88	1200.88	2.75	965.0
104	63.11	145.63	1148.63	18.00	83.64	193.02	1196.02	2.75	1003.0
105	57.48	132.64	1148.64	18.00	78.02	180.04	1196.04	2.75	1016.0
106	68.77	158.69	1148.69	18.00	89.40	206.32	1196.32	2.75	990.0
107	86.03	198.53	1148.53	18.00	111.55	257.43	1207.43	2.75	950.0
108	76.62	176.80	1148.80	18.00	97.07	224.01	1196.01	2.75	972.0
109	108.72	250.89	1145.89	18.00	126.84	292.70	1187.70	2.75	895.0
110	104.38	240.89	1145.89	18.00	122.50	282.70	1187.70	2.75	905.0
111	97.05	223.96	1145.96	18.00	115.14	265.71	1187.71	2.75	922.0
112	93.17	215.00	1146.00	18.00	111.24	256.71	1187.71	2.75	931.0
113	91.45	211.04	1146.04	18.00	109.52	252.73	1187.73	2.75	935.0
114	85.79	197.98	1145.98	18.00	103.89	239.74	1187.74	2.75	948.0
115	86.56	199.76	1149.76	18.00	100.75	232.49	1182.49	2.75	950.0
116	81.22	187.43	1148.43	18.00	99.77	230.23	1191.23	2.75	961.0
117	85.63	197.60	1147.60	18.00	104.53	241.22	1191.22	2.75	950.0
118	85.62	197.58	1147.58	18.00	104.49	241.13	1191.13	2.75	950.0
119	85.45	197.19	1147.19	18.00	104.33	240.77	1190.77	2.75	950.0
120	80.85	186.58	1086.58	6.00	82.36	190.06	1090.06	2.75	900.0
121	86.02	198.50	1148.50	18.00	106.67	246.16	1196.16	2.75	950.0
122	75.23	173.60	1153.60	18.00	88.13	203.38	1183.38	2.75	980.0
123	87.80	202.61	1152.61	18.00	100.77	232.56	1182.56	2.75	950.0
124	66.32	153.05	1153.05	18.00	77.92	179.82	1179.82	2.75	1000.0
125	90.87	209.69	1149.69	18.00	105.06	242.44	1182.44	2.75	940.0
126	77.84	179.63	1149.63	18.00	92.08	212.50	1182.50	2.75	970.0
127	86.52	199.66	1149.66	18.00	100.75	232.50	1182.50	2.75	950.0
128	83.85	193.51	1148.51	18.00	104.50	241.16	1196.16	2.75	955.0
129	65.39	150.90	1085.90	6.00	67.19	155.05	1090.05	2.75	935.0
130	84.89	195.90	1085.90	6.00	86.69	200.05	1090.05	2.75	890.0

131	65.39	150.90	1085.90	6.00	67.19	155.05	1090.05	2.75	935.0
132	110.79	255.66	1085.66	6.00	112.69	260.05	1090.05	0.00	830.0
133	119.59	275.97	1085.97	6.00	121.36	280.05	1090.05	0.00	810.0
134	87.03	200.84	1085.84	6.00	88.86	205.05	1090.05	2.75	885.0
135	75.19	173.51	1148.51	18.00	95.84	221.17	1196.17	2.75	975.0
136	83.79	193.36	1148.36	18.00	102.33	236.14	1191.14	2.75	955.0
137	51.98	119.96	1089.96	6.00	52.03	120.07	1090.07	0.00	970.0
138	77.35	178.51	1148.51	18.00	98.00	226.16	1196.16	2.75	970.0
139	77.39	178.59	1148.59	18.00	99.00	228.46	1198.46	2.75	970.0
140	79.55	183.59	1148.59	18.00	101.34	233.86	1198.86	2.75	965.0
141	102.19	235.82	1085.82	6.00	104.02	240.05	1090.05	2.75	850.0
142	87.03	200.84	1085.84	6.00	88.86	205.05	1090.05	2.75	885.0
143	83.05	191.65	1149.65	18.00	97.28	224.50	1182.50	2.75	958.0
144	87.02	200.81	1085.81	6.00	88.86	205.05	1090.05	2.75	885.0
145	81.65	188.42	1148.42	18.00	106.26	245.20	1205.20	2.75	960.0
146	92.48	213.41	1148.41	18.00	117.09	270.20	1205.20	2.75	935.0
147	90.31	208.41	1148.41	18.00	114.92	265.20	1205.20	2.75	940.0
148	85.98	198.41	1148.41	18.00	110.59	255.20	1205.20	2.75	950.0
149	64.53	148.92	1088.92	6.00	65.03	150.06	1090.06	2.75	940.0
150	69.77	161.00	1086.00	6.00	71.52	165.05	1090.05	0.00	925.0
151	80.17	185.01	1086.01	6.00	81.92	189.05	1090.05	0.00	901.0
152	69.98	161.49	1088.49	6.00	70.66	163.06	1090.06	2.75	927.0
153	69.99	161.52	1088.52	6.00	70.66	163.06	1090.06	2.75	927.0
154	84.99	196.13	1146.13	18.00	104.71	241.65	1191.65	2.75	950.0
155	77.84	179.62	1149.62	18.00	92.08	212.50	1182.50	2.75	970.0
156	107.49	248.06	1146.06	18.00	125.56	289.74	1187.74	2.75	898.0
157	106.52	245.83	1085.83	6.00	108.36	250.05	1090.05	0.00	840.0
158	64.42	148.66	1148.66	18.00	84.68	195.42	1195.42	2.75	1000.0
159	89.09	205.58	1145.58	18.00	108.85	251.19	1191.19	2.75	940.0
160	87.21	201.24	1142.24	18.00	108.30	249.93	1190.93	2.75	941.0
161	101.57	234.40	1139.40	18.00	123.90	285.92	1190.92	2.75	905.0
162	75.13	173.38	1148.38	18.00	93.63	216.08	1191.08	2.75	975.0
163	81.61	188.34	1148.34	18.00	100.16	231.13	1191.13	2.75	960.0
164	82.46	190.28	1148.28	18.00	101.02	233.13	1191.13	2.75	958.0
165	76.58	176.72	1148.72	18.00	94.36	217.77	1189.77	2.75	972.0
166	70.64	163.01	1153.01	18.00	82.25	189.82	1179.82	2.75	990.0
167	70.13	161.84	1156.84	47.25	76.01	175.42	1170.42	2.75	995.0
168	90.76	209.45	1089.45	6.00	91.03	210.07	1090.07	0.00	880.0
169	90.73	209.37	1089.37	6.00	91.03	210.07	1090.07	0.00	880.0
170	110.55	255.12	1145.12	18.00	129.00	297.69	1187.69	2.75	890.0
171	110.61	255.25	1145.25	18.00	129.00	297.69	1187.69	2.75	890.0
172	57.83	133.46	1153.46	18.00	70.42	162.51	1182.51	2.75	1020.0
173	125.40	289.38	1139.38	18.00	147.73	340.92	1190.92	2.75	850.0
174	70.85	163.51	1148.51	18.00	91.51	211.17	1196.17	2.75	985.0
175	88.20	203.53	1148.53	18.00	109.02	251.57	1196.57	2.75	945.0
176	77.36	178.53	1148.53	18.00	98.17	226.56	1196.56	2.75	970.0
177	86.03	198.52	1148.52	18.00	106.80	246.45	1196.45	2.75	950.0
178	116.84	269.63	1144.63	18.00	135.50	312.69	1187.69	2.75	875.0
179	110.26	254.45	1145.45	18.00	128.83	297.30	1188.30	2.75	891.0
180	97.69	225.44	1145.44	18.00	116.22	268.20	1188.20	2.75	920.0
181	105.97	244.54	1139.54	18.00	128.23	295.92	1190.92	2.75	895.0
182	97.30	224.53	1139.53	18.00	119.57	275.92	1190.92	2.75	915.0
183	75.19	173.52	1148.52	18.00	95.96	221.45	1196.45	2.75	975.0
184	81.69	188.51	1148.51	18.00	102.40	236.30	1196.30	2.75	960.0
185	80.47	185.70	1148.70	18.00	98.31	226.88	1189.88	2.75	963.0
186	95.52	220.44	1145.44	18.00	114.02	263.13	1188.13	2.75	925.0
187	95.43	220.21	1145.21	18.00	114.02	263.13	1188.13	2.75	925.0
188	83.82	193.42	1148.42	18.00	108.42	250.20	1205.20	2.75	955.0
189	62.32	143.82	1148.82	18.00	82.56	190.53	1195.53	2.75	1005.0
190	66.72	153.96	1151.96	18.00	81.66	188.45	1186.45	2.75	998.0
191	70.94	163.71	1148.71	18.00	91.26	210.60	1195.60	2.75	985.0
192	54.01	124.65	1152.65	18.00	68.42	157.88	1185.88	2.75	1028.0
193	103.82	239.58	1089.58	6.00	104.03	240.07	1090.07	0.00	850.0
194	71.89	165.91	1085.91	6.00	73.69	170.05	1090.05	2.75	920.0
195	81.51	188.10	1086.10	6.00	83.22	192.05	1090.05	2.75	898.0
196	76.34	176.18	1086.18	6.00	78.02	180.05	1090.05	0.00	910.0
197	63.11	145.63	1148.63	18.00	83.45	192.57	1195.57	2.75	1003.0
198	75.20	173.55	1148.55	18.00	95.49	220.36	1195.36	2.75	975.0
199	70.91	163.64	1148.64	18.00	91.22	210.51	1195.51	2.75	985.0
200	51.98	119.96	1089.96	6.00	52.03	120.07	1090.07	0.00	970.0
201	93.17	215.01	1090.01	6.00	93.20	215.08	1090.08	0.00	875.0
202	73.08	168.64	1148.64	18.00	93.39	215.51	1195.51	2.75	980.0
203	93.55	215.89	1085.89	6.00	95.36	220.05	1090.05	0.00	870.0
204	102.23	235.91	1085.91	6.00	104.02	240.05	1090.05	0.00	850.0
205	102.22	235.89	1085.89	6.00	104.02	240.05	1090.05	0.00	850.0
206	106.55	245.88	1085.88	6.00	108.36	250.05	1090.05	0.00	840.0
207	74.15	171.12	1151.12	18.00	89.86	207.37	1187.37	2.75	980.0
208	68.70	158.53	1148.53	18.00	95.56	220.52	1210.52	2.75	990.0
209	52.75	121.73	1111.73	19.00	74.97	173.00	1163.00	33.00	990.0
210	81.79	188.74	1148.74	18.00	102.40	236.31	1196.31	2.75	960.0
211	61.10	141.00	1151.00	18.00	77.14	178.00	1188.00	2.75	1010.0

212	82.76	190.97	1150.97	18.00	99.06	228.61	1188.61	2.75	960.0
213	97.94	226.01	1086.01	6.00	99.69	230.05	1090.05	0.00	860.0
214	72.38	167.04	1086.04	18.00	74.12	171.05	1090.05	0.00	919.0
215	76.28	176.02	1086.02	18.00	78.02	180.05	1090.05	0.00	910.0
216	66.97	154.56	1089.56	6.00	67.20	155.07	1090.07	2.75	935.0
217	56.23	129.77	1089.77	6.00	56.36	130.07	1090.07	0.00	960.0
218	73.52	169.67	1089.67	6.00	73.70	170.07	1090.07	2.75	920.0
219	73.77	170.23	1150.23	18.00	90.18	208.11	1188.11	2.75	980.0
220	77.77	179.47	1149.47	18.00	94.82	218.83	1188.83	2.75	970.0
221	75.17	173.47	1149.47	18.00	92.22	212.83	1188.83	2.75	976.0
222	70.85	163.50	1148.50	18.00	91.48	211.12	1196.12	2.75	985.0
223	75.19	173.51	1148.51	18.00	95.89	221.28	1196.28	2.75	975.0
224	73.03	168.52	1148.52	18.00	93.82	216.50	1196.50	2.75	980.0
225	71.90	165.92	1085.92	6.00	73.69	170.05	1090.05	0.00	920.0
226	87.05	200.89	1085.89	6.00	88.86	205.05	1090.05	0.00	885.0
227	84.90	195.92	1085.92	6.00	86.69	200.05	1090.05	0.00	890.0
228	73.10	168.70	1089.70	6.00	73.26	169.07	1090.07	0.00	921.0
229	93.57	215.93	1085.93	6.00	95.36	220.05	1090.05	0.00	870.0
230	91.63	211.45	1086.45	6.00	93.19	215.05	1090.05	2.75	875.0
231	80.08	184.81	1089.81	6.00	80.20	185.07	1090.07	0.00	905.0
232	93.00	214.62	1085.62	6.00	94.92	219.05	1090.05	0.00	871.0
233	63.10	145.62	1085.62	6.00	65.02	150.05	1090.05	2.75	940.0
234	87.75	202.49	1152.49	18.00	100.76	232.51	1182.51	2.75	950.0
235	87.03	200.85	1145.85	18.00	106.82	246.50	1191.50	2.75	945.0
236	91.36	210.83	1145.83	18.00	111.15	256.49	1191.49	2.75	935.0
237	79.36	183.14	1148.14	18.00	99.34	229.25	1194.25	2.75	965.0
238	51.32	118.42	1148.42	18.00	75.92	175.20	1205.20	2.75	1030.0
239	81.70	188.54	1148.54	18.00	105.61	243.71	1203.71	2.75	960.0
240	75.19	173.51	1148.51	18.00	98.82	228.06	1203.06	2.75	975.0
241	74.55	172.03	1152.03	18.00	87.43	201.76	1181.76	2.75	980.0
242	96.44	222.56	1152.56	18.00	109.03	251.60	1181.60	2.75	930.0
243	74.92	172.88	1152.88	18.00	86.85	200.42	1180.42	2.75	980.0
244	82.01	189.26	1139.26	18.00	104.40	240.92	1190.92	2.75	950.0
245	96.34	222.32	1152.32	18.00	109.06	251.67	1181.67	2.75	930.0
248	63.45	146.42	1148.42	18.00	88.06	203.20	1205.20	2.75	1002.0
250	65.45	151.05	1151.05	18.00	81.26	187.52	1187.52	2.75	1000.0
251	73.76	170.23	1150.23	18.00	90.18	208.12	1188.12	2.75	980.0
252	57.17	131.94	1151.94	18.00	72.15	166.50	1186.50	2.75	1020.0
253	58.08	134.03	1154.03	18.00	71.15	164.20	1184.20	2.75	1020.0
254	69.11	159.48	1148.48	18.00	89.34	206.17	1195.17	2.75	989.0
255	71.27	164.47	1148.47	18.00	91.41	210.95	1194.95	2.75	984.0
256	73.00	168.46	1148.46	18.00	93.14	214.95	1194.95	2.75	980.0
257	73.01	168.48	1148.48	18.00	93.24	215.18	1195.18	2.75	980.0
258	63.04	145.48	1148.48	18.00	83.28	192.18	1195.18	2.75	1003.0
259	77.34	178.48	1148.48	18.00	97.58	225.19	1195.19	2.75	970.0
260	77.34	178.48	1148.48	18.00	97.58	225.19	1195.19	2.75	970.0
261	92.50	213.46	1148.46	18.00	112.52	259.67	1194.67	2.75	935.0
262	67.04	154.70	1089.70	6.00	67.20	155.07	1090.07	0.00	935.0
263	69.22	159.73	1089.73	6.00	69.36	160.07	1090.07	0.00	930.0
264	67.04	154.71	1089.71	6.00	67.20	155.07	1090.07	0.00	935.0
265	84.45	194.89	1089.89	6.00	84.53	195.07	1090.07	0.00	895.0
266	85.93	198.30	1148.30	18.00	106.36	245.44	1195.44	2.75	950.0
267	101.69	234.66	1089.66	6.00	101.87	235.07	1090.07	0.00	855.0
268	114.56	264.36	1089.36	6.00	114.86	265.07	1090.07	0.00	825.0
269	101.58	234.41	1089.41	6.00	101.86	235.07	1090.07	0.00	855.0
270	82.09	189.43	1089.43	6.00	82.36	190.07	1090.07	0.00	900.0
271	90.76	209.44	1089.44	6.00	91.03	210.07	1090.07	0.00	880.0
272	101.62	234.51	1089.51	6.00	101.86	235.07	1090.07	0.00	855.0
273	90.24	208.25	1148.25	18.00	110.38	254.71	1194.71	2.75	940.0
274	87.69	202.36	1148.36	18.00	107.83	248.85	1194.85	2.75	946.0
275	84.66	195.36	1148.36	18.00	104.80	241.85	1194.85	2.75	953.0
276	116.78	269.48	1089.48	6.00	117.03	270.07	1090.07	0.00	820.0
277	96.66	223.06	1086.06	6.00	98.39	227.05	1090.05	0.00	863.0
278	108.76	250.97	1085.97	6.00	110.52	255.05	1090.05	0.00	835.0
279	115.24	265.94	1085.94	6.00	117.02	270.05	1090.05	0.00	820.0
280	110.92	255.97	1085.97	6.00	112.69	260.05	1090.05	0.00	830.0
281	110.92	255.96	1085.96	6.00	112.69	260.05	1090.05	0.00	830.0
282	71.93	166.00	1086.00	6.00	73.69	170.05	1090.05	0.00	920.0
283	89.24	205.94	1085.94	6.00	91.02	210.05	1090.05	0.00	880.0
284	64.52	148.90	1088.90	6.00	65.03	150.06	1090.06	2.75	940.0
285	64.53	148.91	1088.91	6.00	65.03	150.06	1090.06	2.75	940.0
286	60.25	139.05	1089.05	6.00	60.69	140.06	1090.06	2.75	950.0
287	55.92	129.05	1089.05	6.00	56.36	130.06	1090.06	2.75	960.0
288	71.32	164.60	1089.60	6.00	71.53	165.07	1090.07	2.75	925.0
289	92.76	214.06	1089.06	6.00	93.20	215.07	1090.07	0.00	875.0
290	59.19	136.60	1156.60	18.00	65.61	151.40	1171.40	2.75	1020.0
291	61.03	140.85	1156.85	47.25	66.87	154.30	1170.30	32.75	1016.0
292	75.70	174.69	1089.69	6.00	75.86	175.07	1090.07	0.00	915.0
293	64.86	149.69	1089.69	6.00	65.03	150.07	1090.07	0.00	940.0
294	82.19	189.67	1089.67	6.00	82.36	190.07	1090.07	0.00	900.0
295	59.24	136.70	1089.70	6.00	59.40	137.07	1090.07	0.00	953.0

296	85.93	198.30	1148.30	18.00	106.36	245.44	1195.44	2.75	950.0
297	80.04	184.70	1089.70	6.00	80.20	185.07	1090.07	0.00	905.0
298	68.59	158.29	1148.29	18.00	88.98	205.34	1195.34	2.75	990.0
299	83.77	193.31	1148.31	18.00	104.21	240.49	1195.49	2.75	955.0
300	61.30	141.45	1148.45	18.00	81.87	188.94	1195.94	2.75	1007.0
301	70.33	162.29	1148.29	18.00	90.70	209.31	1195.31	2.75	986.0
302	86.00	198.47	1148.47	18.00	110.42	254.81	1204.81	2.75	950.0
303	86.00	198.47	1148.47	18.00	110.22	254.35	1204.35	2.75	950.0
304	75.18	173.49	1148.49	18.00	98.84	228.09	1203.09	2.75	975.0
305	74.74	172.47	1148.47	18.00	98.69	227.75	1203.75	2.75	976.0
306	73.00	168.47	1148.47	18.00	97.18	224.27	1204.27	2.75	980.0
307	86.00	198.47	1148.47	18.00	109.92	253.67	1203.67	2.75	950.0
308	75.17	173.47	1148.47	18.00	99.36	229.30	1204.30	2.75	975.0
309	86.00	198.47	1148.47	18.00	110.14	254.17	1204.17	2.75	950.0
310	106.56	245.91	1085.91	6.00	108.36	250.05	1090.05	0.00	840.0
311	81.67	188.46	1148.46	18.00	101.73	234.76	1194.76	2.75	960.0
312	108.68	250.81	1145.81	18.00	126.84	292.70	1187.70	2.75	895.0
313	102.21	235.87	1145.87	18.00	120.34	277.70	1187.70	2.75	910.0
314	86.17	198.85	1148.85	18.00	103.64	239.18	1189.18	2.75	950.0
315	96.62	222.98	1145.98	18.00	114.74	264.79	1187.79	2.75	923.0
316	101.88	235.12	1146.12	18.00	119.94	276.80	1187.80	2.75	911.0
317	99.18	228.89	1085.89	6.00	100.99	233.05	1090.05	0.00	857.0
318	119.55	275.88	1085.88	6.00	121.36	280.05	1090.05	0.00	810.0
319	93.59	215.64	1145.98	18.00	111.68	257.72	1187.72	2.75	930.0
320	100.07	230.93	1145.93	18.00	118.17	272.70	1187.70	2.75	915.0
321	71.77	165.62	1085.62	6.00	73.69	170.05	1090.05	2.75	920.0
322	147.60	340.62	1085.62	6.00	149.52	345.05	1090.05	2.75	745.0
323	119.44	275.64	1085.64	6.00	121.36	280.05	1090.05	2.75	810.0
324	102.10	235.62	1085.62	6.00	104.02	240.05	1090.05	2.75	850.0
325	72.16	166.52	1086.52	6.00	73.69	170.06	1090.06	2.75	920.0
326	95.22	219.75	1149.75	18.00	109.39	252.45	1182.45	2.75	930.0
327	93.46	215.67	1085.67	6.00	95.36	220.05	1090.05	0.00	870.0
328	108.73	250.92	1145.92	18.00	126.84	292.70	1187.70	2.75	895.0
329	77.85	179.66	1149.66	18.00	92.08	212.50	1182.50	2.75	970.0
330	87.74	202.48	1152.48	18.00	100.76	232.51	1182.51	2.75	950.0
331	83.08	191.72	1149.72	18.00	97.70	225.47	1183.47	2.75	958.0
332	72.74	167.86	1152.86	18.00	85.91	198.26	1183.26	2.75	985.0
333	68.02	156.97	1154.97	18.00	77.80	179.55	1177.55	2.75	998.0
334	74.47	171.84	1151.84	18.00	89.59	206.74	1186.74	2.75	980.0
338	67.61	156.03	1156.03	18.00	75.55	174.35	1174.35	2.75	1000.0
339	67.65	156.12	1156.12	18.00	75.36	173.91	1173.91	2.75	1000.0
O-AV-1	56.46	130.30	1156.30	18.00	61.56	142.06	1168.06	29.25	1026.0
I-AV-2	60.45	139.50	1154.50	18.00	73.40	169.40	1184.40	2.75	1015.0
FGN-BB	79.73	184.00	1139.00	0.00	79.73	184.00	1139.00	0.00	955.0
I-Pump-1	52.67	121.56	1111.56	19.00	74.97	173.00	1163.00	33.00	990.0
I-Pump-2	52.75	121.73	1111.73	19.00	74.97	173.00	1163.00	33.00	990.0
R-1	55.03	127.00	1112.00	19.00	77.13	178.00	1163.00	9.00	985.0
I-RV-1	97.57	225.16	1145.16	18.00	116.19	268.13	1188.13	2.75	920.0
I-RV-2	111.41	257.10	1147.10	18.00	126.70	292.39	1182.39	2.75	890.0
I-RV-R1	116.84	269.63	1144.63	18.00	135.50	312.69	1187.69	2.75	875.0
I-RV-R2	77.84	179.62	1149.62	18.00	92.08	212.50	1182.50	2.75	970.0
TANK-A	56.50	130.38	1156.38	18.00	61.54	142.02	1168.02	29.25	1026.0
TANK-B	60.91	140.57	1155.57	18.00	67.09	154.81	1169.81	29.50	1015.0
TANK-C	57.14	131.87	1156.87	47.25	62.89	145.14	1170.14	32.75	1025.0
O-Pump-1	68.70	158.53	1148.53	18.00	95.70	220.83	1210.83	2.75	990.0
O-Pump-2	68.70	158.53	1148.53	18.00	95.56	220.52	1210.52	2.75	990.0
O-AV-2	60.91	140.55	1155.55	18.00	67.09	154.82	1169.82	29.50	1015.0
I-AV-1	56.30	129.93	1155.93	18.00	64.57	149.00	1175.00	2.75	1026.0
O-RV-R1	93.20	215.08	1090.08	0.00	93.20	215.08	1090.08	0.00	875.0
O-RV-R2	52.00	120.00	1090.00	4.00	52.03	120.07	1090.07	0.00	970.0
O-RV-1	73.60	169.85	1089.85	5.00	73.70	170.07	1090.07	0.00	920.0
O-RV-2	86.70	200.08	1090.08	0.00	86.70	200.08	1090.08	0.00	890.0

***** HYDRAULIC ANALYSIS COMPLETED *****

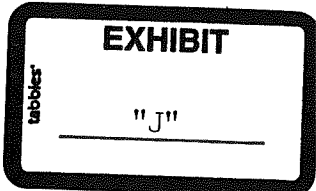
COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF JESSAMINE-SOUTH ELKHORN)
WATER DISTRICT FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY TO)
CONSTRUCT AND FINANCE A WATERWORKS) **CASE NO 2014- _____**
IMPROVEMENT PROJECT PURSUANT TO KRS)
278.020 AND 278.300)

DIRECT TESTIMONY OF DALLAM B. HARPER, JR., AICP

March 5, 2014



1 **Q.1 Please state your name and business address.**

2 Dallam B. Harper, Jr., AICP

3 Bluegrass Area Development District

4 699 Perimeter Drive

5 Lexington, Kentucky 40517

6 **Q.2 By whom are you employed and in what capacity?**

7 Bluegrass Area Development District as Senior Planner.

8 **Q.3 Have you previously testified before this Commission?**

9 No.

10 **Q.4 Please state your educational and professional background.**

11 Bachelor of Business Administration – University of Kentucky – 1973;

12 Planning Commissioner, Lexington-Fayette Urban County Government 1994 – 2007;

13 LFUCG Subdivision Committee Chair – 1995 – 1999;

14 Member, American Institute of Certified Planners – 1998;

15 LFUCG Zoning Committee Chair – 2000 – 2004;

16 LFUCG Commission Chair – 2005 – 2007;

17 Regional Planning Director – Bluegrass ADD – 2003 – 2007;

18 Senior Planner – Bluegrass ADD – 2007 – present; and

19 My Biological Profile is attached as an exhibit to my testimony with further information.

20 **Q.5 What is your past experience with Jessamine-South Elkhorn Water District**

21 **(“JSEWD”), the Applicant in this proceeding? Have you ever been employed by**

22 **JSEWD in any capacity?**

23 I have no previous experience or employment with the applicant

1 **Q.6 What is the purpose of your testimony in this proceeding?**

2 To present population projections for the District.

3 **Q.7 Please describe your background in reviewing and projecting population growth**
4 **statistics.**

5 I have written many comprehensive plans during my career and I was privileged to
6 facilitate the Joint Comprehensive Plan for the two planning commissions and three
7 legislative bodies in Jessamine County in 2011. As a professional planner, training and
8 experience has allowed me to properly fulfill the research requirements laid out in KRS
9 100.191(A):

10 “An analysis of the general distribution and characteristic of past and present population
11 and a forecast of the extent and character of future population as far into the future as is
12 reasonable to foresee”

13 **Q.8 Did you prepare the population growth study that is attached to your testimony and**
14 **that was utilized by JSEWD in its demand studies?**

15 Yes.

16 **Q.9 Please explain the methodology that you employed in projecting population growth**
17 **in this study.**

18 Historical population figures from the 1990, 2000, and 2010 census tables for both the
19 County as a whole and the Water District boundaries were assemble and evaluated.

20 Historic growth trends for the county and the water district were established and the
21 water district’s share of the historical population increase was established.

22 The water district’s share was then applied to the Kentucky Data Center’s 2010-2050
23 population projections.

1 **Q.10 Does your study specifically project growth in the JSEWD service territory?**

2 Yes.

3 **Q.11 Does your study accurately reflect a reasonable projection of population growth in**
4 **JSEWD's service territory for the projected period?**

5 Yes.

6 **Q.12 Please summarize your findings as to projected population growth.**

7 The population growth rate in the water district has historically grown faster than that of
8 the County as a whole and that trend is expected to continue. See the following table:

9

H2o District Alternative "B" - 19.26% Share	Population	Increase	Growth
Population Projection 2015	7074	974	
Population Projection 2020	8091	1017	32.63%
Population Projection 2025	9067	976	
Population Projection 2030	10017	950	23.80%
Population Projection 2035	10939	922	
Population Projection 2040	11825	886	18.04%
Population Projection 2045	12672	847	
Population Projection 2050	13503	831	14.19%

Projected Rates of growth	1990-2010 Actual	2010 - 2030	2030-2050
County	59.36%	41.87%	26.26%
H20 District	74.78%	64.21%	34.80%

10

11 **Q.13 Does this conclude your testimony?**

12 Yes.

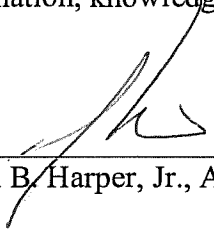
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14

15

VERIFICATION

The undersigned, Dallam B. Harper, Jr., being duly sworn, deposes and says he Senior Planner for the Bluegrass Area Development District, that he has personal knowledge of the matters set forth in the foregoing responses for which he is the identified witness and that the information contained therein is true and correct to the best of his information, knowledge and belief.

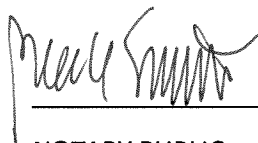


Dallam B. Harper, Jr., AICP

COMMONWEALTH OF KENTUCKY

COUNTY OF JESSAMINE, SCT...

Acknowledged, subscribed and sworn to me, a Notary Public in and before said County and State by Dallam B. Harper, Jr., AICP, this the 5th day of March, 2014.



NOTARY PUBLIC NO. 433464

Dallam B. Harper, Jr., AICP
Bluegrass Area Development District
699 Perimeter Drive
Lexington, Kentucky 40517
859-269-8021
Dharper@bgadd.org

Biographical Profile

Dal Harper is the Senior Planner at the Bluegrass Area Development District, the Director of the Bluegrass Regional Planning Council and a member of the American Planning Association's professional institute, AICP. As a certified planner, Dal's responsibilities include the oversight of all technical and planning support services supplied to city and county governments within the ADD. Dal also serves the region as a Certified Community Development Block Grant Administrator.

Dal's planning background stems from more than a decade of public service as a planning commissioner in the Lexington-Fayette-Urban-County-Government. He is a past planning commission chairman and has served four terms respectively as the chair of LFUCG's zoning committee and subdivision committee. His eleven year tenure at the Bluegrass Area Development District has produced many legislative highlights including updates to zoning ordinances; subdivision regulations; comprehensive plans; along with an award winning Expansion Area Master Plan; a nationally recognized Rural Service Area Land Management Plan; and the 2011 Wilmore, Nicholasville, Jessamine County Joint Comprehensive Plan which received Kentucky's "Vision" award from the Kentucky Chapter of the American Planning Association.

Dal's business background includes time as a registered investment advisor, as an owner and president of a multi state Godfather's Pizza franchise, as a regional manager of a multi state TGI Friday's franchise, and as a district director of 135 company and franchised owned Long John Silvers Seafood Shoppes.

Active in civic affairs, Dal served two terms as a site based decision council member at Henry Clay High School, is a past officer and director of the Lexington Rotary Club, the Voluntary Action Council, and the Retired Senior Citizens program. Dal is a graduate of Leadership Lexington, Leadership Central Kentucky, Kentucky's CDBG Administrator Certification Training and the Kentucky Institute for Economic Development.

Dal is a business administration graduate of the University of Kentucky.

Population Projections

Jessamine-South Elkhorn Water District 2015-2050

Dallam B. Harper, Jr., AICP
Bluegrass Area Development District
699 Perimeter Drive
Lexington, KY 40517

Executive Summary

The Bluegrass Area Development District, one of fifteen Area Development Districts in the Commonwealth of Kentucky, has been engaged to produce population projections for the northwest area of the Jessamine County South Elkhorn Water District (JCSEWD). The area studied is identified (shaded on the attached two maps) and spans 28,321 acres of Jessamine County's 110,156 acre land mass.

Dallam B. Harper, Jr., AICP, the ADD's Senior Planner, has researched the historical population trends, denoted what percent of the County's total population increase occurred in each of the last two decades within the JCSEWD, made a share determination for the future and applied that (share) factor to the Kentucky State Data Center's county population projections to generate a reliable population projection for the JCSEWD.

Below are the outcomes:

JSEWD	Population**	Increase	Growth (10 yr)
Population Projection 2015	7074	974	
Population Projection 2020	8091	1017	32.63%
Population Projection 2025	9067	976	
Population Projection 2030	10017	950	23.80%
Population Projection 2035	10939	922	
Population Projection 2040	11825	886	18.04%
Population Projection 2045	12672	847	
Population Projection 2050	13503	831	14.19%

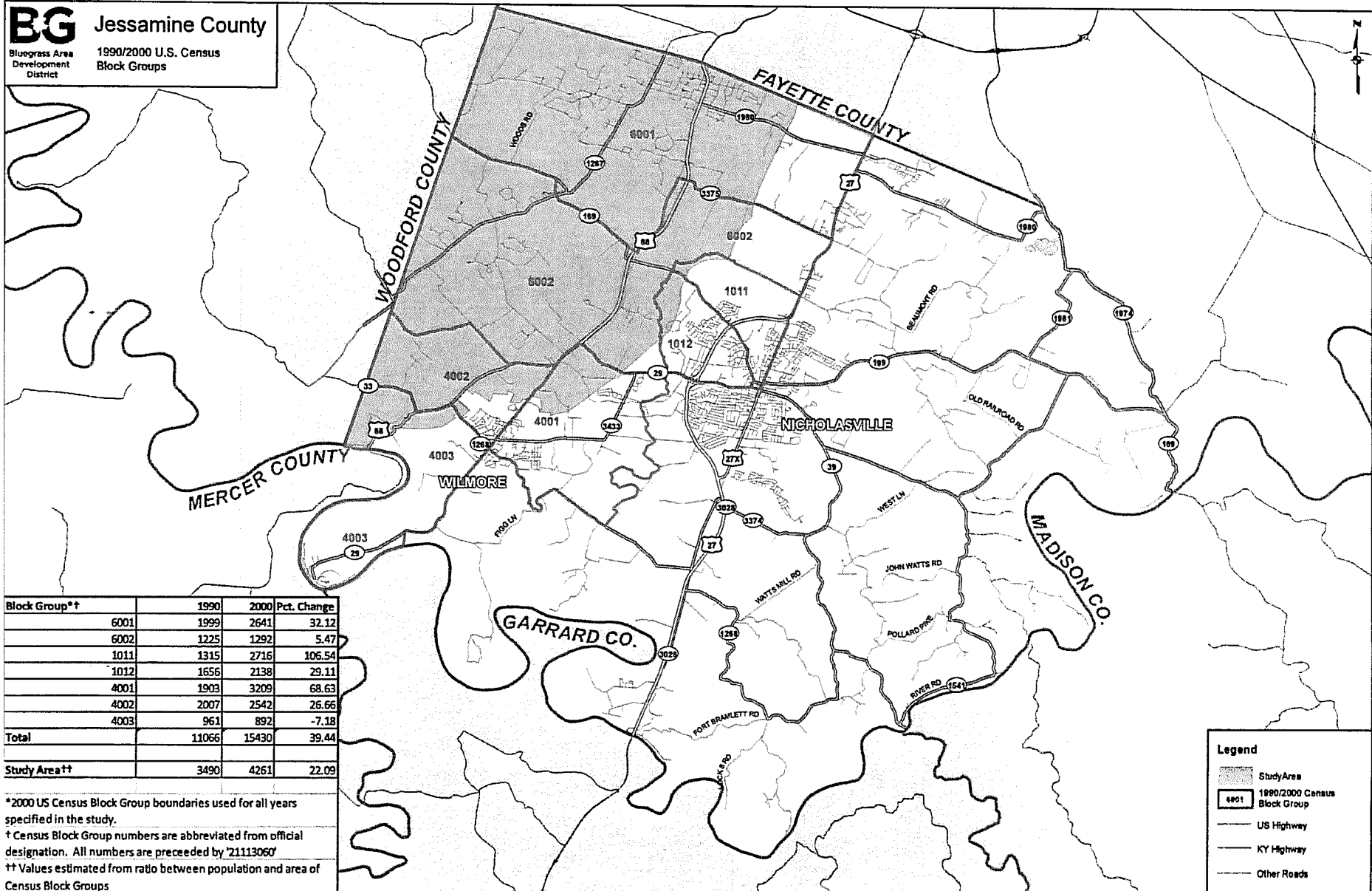
** BGADD projections using a 19.26% share of total population growth

Discussion – Maps

Historical population information is readily available from the US Census Bureau and/or the Kentucky State Data Center (KSDC) for legislative jurisdictions like Jessamine County. The Census Bureau does not, however, specifically bundle their data along the boundary lines of the Jessamine County South Elkhorn Water District (JCSEWD). When this information is needed, we capture census block group data and add them together.

The Group Census Block Boundaries remained the same during the 1990 and 2000 census so the population data for both census years appear on the first map. In 2010 there were more block groups so that population information is presented on the second map.

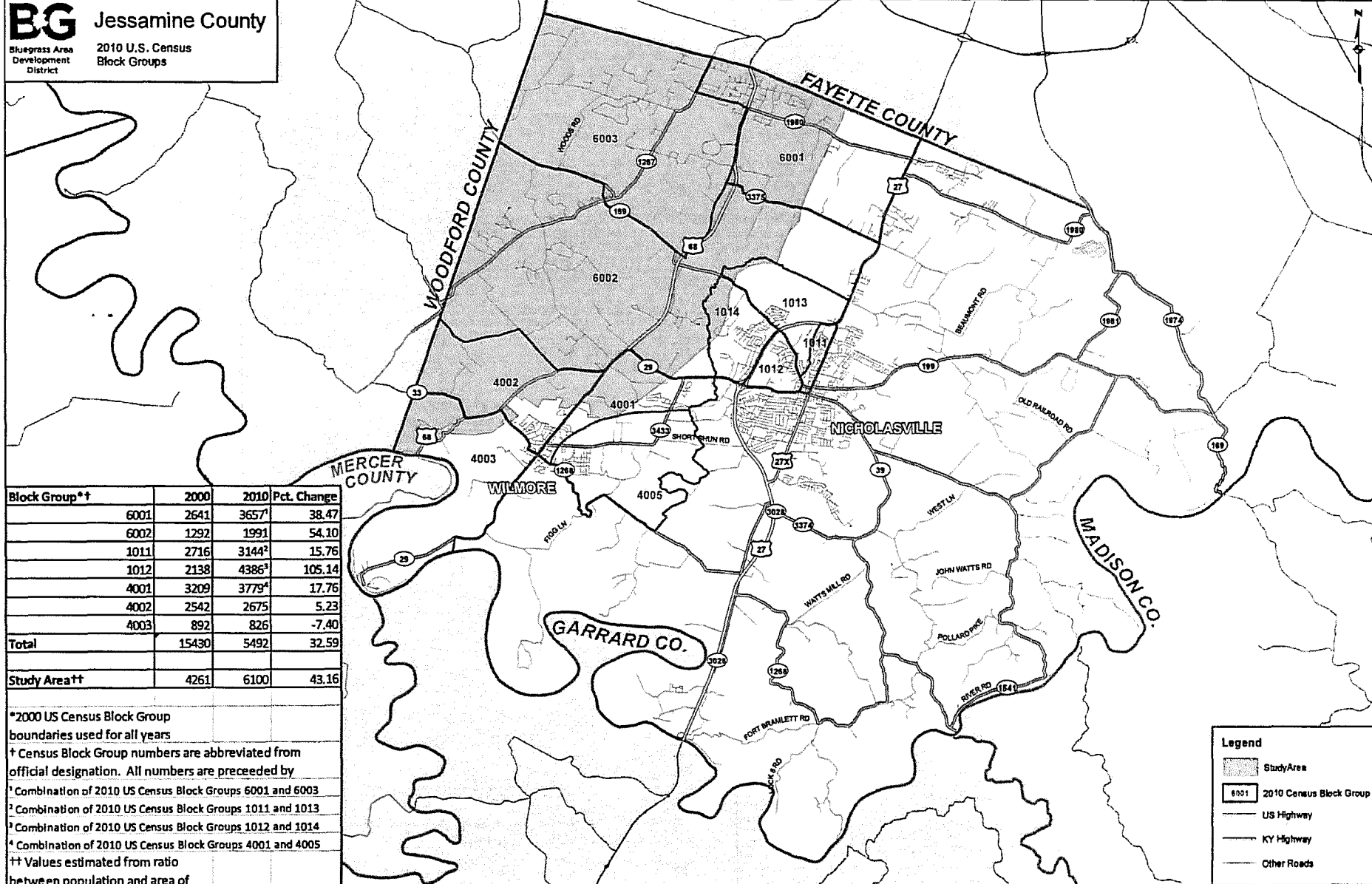
BG Jessamine County
 Bluegrass Area Development District
 1990/2000 U.S. Census Block Groups



Block Group**†	1990	2000	Pct. Change
6001	1999	2641	32.12
6002	1225	1292	5.47
1011	1315	2716	106.54
1012	1656	2138	29.11
4001	1903	3209	68.63
4002	2007	2542	26.66
4003	961	892	-7.18
Total	11066	15430	39.64
Study Area**††	3490	4261	22.09

*2000 US Census Block Group boundaries used for all years specified in the study.
 † Census Block Group numbers are abbreviated from official designation. All numbers are preceded by '21113060'
 †† Values estimated from ratio between population and area of Census Block Groups

BG Jessamine County
 Bluegrass Area Development District
 2010 U.S. Census Block Groups



Block Group*†	2000	2010	Pct. Change
6001	2641	3657 ¹	38.47
6002	1292	1991	54.10
1011	2716	3144 ²	15.76
1012	2138	4386 ³	105.14
4001	3209	3779 ⁴	17.76
4002	2542	2675	5.23
4003	892	826	-7.40
Total	15430	5492	32.59
Study Area**	4261	6100	43.16

*2000 US Census Block Group boundaries used for all years
 † Census Block Group numbers are abbreviated from official designation. All numbers are preceded by
¹ Combination of 2010 US Census Block Groups 6001 and 6003
² Combination of 2010 US Census Block Groups 1011 and 1013
³ Combination of 2010 US Census Block Groups 1012 and 1014
⁴ Combination of 2010 US Census Block Groups 4001 and 4005
 ** Values estimated from ratio between population and area of

Discussion – Historic Growth Trends

Historically, Jessamine County has grown fast in the past two decades (1990 – 2010) but the Jessamine County South Elkhorn Water District has grown faster:

	Jessamine County**	Population Increase	Percent Growth
Census 1990 Population	30,508		
Census 2000 Population	39,041	8,533	27.97%
Census 2010 Population	48,586	<u>9,545</u>	24.45%
20 Year Growth - Jessamine County		18078	59.36%

** US Census Bureau

	H2O District**	Population Increase	Percent Growth
Census 1990 Population	3,490		
Census 2000 Population	4,261	771	22.09%
Census 2010 Population	6,100	<u>1,839</u>	43.16%
20 Year Growth - JCSEWD		2,610	74.78%

** see Map Citations

The Water District's share of the total population increase of Jessamine County during the last two decades is:

H2O District Share of Growth	1990 - 2000	2000 - 2010
	9.04%	19.26%

Discussion – Future Growth Trends

Released in December, 2011, these Jessamine County KSDC population forecasts incorporate the results of the 2010 Census:

KY Data Center Projections for the County	Population**	Increase	Growth (10 yr)
Population Projection 2015	53,645	5,059	
Population Projection 2020	58,928	5,283	21.29%
Population Projection 2025	63,999	5,071	
Population Projection 2030	68,933	4,934	15.28%
Population Projection 2035	73,722	4,789	
Population Projection 2040	78,323	4,601	13.62%
Population Projection 2045	82,721	4,398	
Population Projection 2050	87,040	4,319	11.12%

By factoring in JSCWD's share of the projected population increase, the District can forecast its future population base to predict demand and storage capacity.

H2O District - 19.26% Share	Population	Increase	Growth
Population Projection 2015	7074	974	
Population Projection 2020	8091	1017	32.63%
Population Projection 2025	9067	976	
Population Projection 2030	10017	950	23.80%
Population Projection 2035	10939	922	
Population Projection 2040	11825	886	18.04%
Population Projection 2045	12672	847	
Population Projection 2050	13503	831	14.19%

These projections will produce the following growth rates:

Projected Rates of growth	1990-2010 Actual	2010 - 2030	2030-2050
County	59.36%	41.87%	26.26%
H2O District	74.78%	64.21%	34.80%