



**Wise County Public Service Authority**

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**Pressure Testing of New Mains  
 Water Mains and Force Mains  
 Inspection Report Form**

Project Name: \_\_\_\_\_ Phase No.: \_\_\_\_\_

Contractor: \_\_\_\_\_

Test Date	Inspector	Street Name/ Specific Location	Starting Station #	Ending Station #	Dia. (in)	Length (ft)	Test Pressure (psi)	Allowable Leakage (gal) in 2 hours	Test Start Time (min:sec)	Test Stop Time (min:sec)	Leakage Recorded (gallons)	Test Result
<i>11/2/18</i>	<i>SC</i>	<i>Main Street</i>	<i>0+00</i>	<i>10+00</i>	<i>12</i>	<i>1000</i>	<i>150</i>	<i>1.986</i>	<i>10:15</i>	<i>12:15</i>	<i>1.50</i>	<i>Pass</i>
<i>11/19/18</i>	<i>SC</i>	<i>Main Street</i>	<i>2+00</i>	<i>8+00</i>	<i>8</i>	<i>600</i>	<i>200</i>	<i>0.917</i>	<i>8:30</i>	<i>10:30</i>	<i>1.20</i>	<i>Fail</i>
<i>12/3/18</i>	<i>MG</i>	<i>Olive Branch Rd</i>	<i>25+00</i>	<i>34+50</i>	<i>14</i>	<i>950</i>	<i>240</i>	<i>2.784</i>	<i>1:00</i>	<i>3:00</i>	<i>1.75</i>	<i>Pass</i>

See reverse for testing procedures and allowable leakage formula. Bottom three table entries above represent example tests.

Notes:

## ALLOWABLE LEAKAGE IN GAL/HR FOR 1000' OF PVC OR DUCTILE IRON PIPE

NOMINAL PIPE SIZE (IN)	AVERAGE TEST PRESSURE IN PIPELINE, PSI									
	150	175	200	225	250	275	300	350	400	450
2	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.29
3	0.25	0.27	0.29	0.30	0.32	0.34	0.35	0.38	0.41	0.43
4	0.33	0.36	0.38	0.41	0.43	0.45	0.47	0.51	0.54	0.57
6	0.50	0.54	0.57	0.61	0.64	0.67	0.70	0.76	0.81	0.86
8	0.66	0.72	0.76	0.81	0.85	0.90	0.94	1.01	1.08	1.15
10	0.83	0.89	0.96	1.01	1.07	1.12	1.17	1.26	1.35	1.43
12	0.99	1.07	1.15	1.22	1.28	1.34	1.40	1.52	1.62	1.72
14	1.16	1.25	1.34	1.42	1.50	1.57	1.64	1.77	1.89	2.01
16	1.32	1.43	1.53	1.62	1.71	1.79	1.87	2.02	2.16	2.29

**NOTES:**

- 1) THE ALLOWABLE LEAKAGE FOR TEST SECTIONS WITH DIFFERENT DIAMETERS IS THE SUM OF THE COMPUTED LEAKAGE FOR EACH PIPE SIZE.
- 2) MINIMUM TEST TIME SHALL BE TWO HOURS.
- 3) THE MAXIMUM ALLOWABLE LEAKAGE FOR THE WATER MAIN WILL BE CALCULATED USING THE FOLLOWING FORMULA:

$$\text{WHERE: } L = \frac{D * S * \sqrt{P}}{148,000}$$

L = MAX ALLOWABLE LEAKAGE IN GAL/HR  
 S = LENGTH OF PIPE IN TEST SECTION IN FEET  
 D = NOMINAL DIAMETER OF TESTED PIPE IN INCHES  
 P = TEST PRESSURE IN PSI

- 4) TEST PRESSURE SHALL BE 150 PSI OR 1-1/2 TIMES THE WORKING PRESSURE OF THE MAIN, WHICHEVER IS GREATER. TEST PRESSURE IS TO BE MEASURED AT THE POINT OF HIGHEST ELEVATION OF THE TESTED MAIN SECTION.
- 5) LINE SECTIONS ARE TO BE TESTED SEPARATELY IN CASES WHERE SIGNIFICANT ELEVATION CHANGES OCCUR ALONG A LINE THAT WILL RESULT IN SIGNIFICANTLY DIFFERENT TEST PRESSURES AND/OR WHERE WATERLINE MATERIALS CHANGE DUE TO PRESSURE CHANGES. THE PSA RESERVES THE RIGHT TO REQUIRE SEPARATE TESTING FOR SECTIONS OF MAIN LINE.
- 6) NO MORE THAN 1000 LINEAR FEET OF LINE IS TO BE TESTED AT ANY ONE TIME.



# ALLOWABLE LEAKAGE TABLE FOR WATERLINES & SEWER FORCEMAINS

EFFECTIVE  
07/2024

DETAIL NO.  
401