Document Path: W:\02_WUE\13_Flow Summary Results\2022\2022_05_25. Park and Thomas\2022_05_27. Park and Thomas.mxd

1 inch = 32 feet

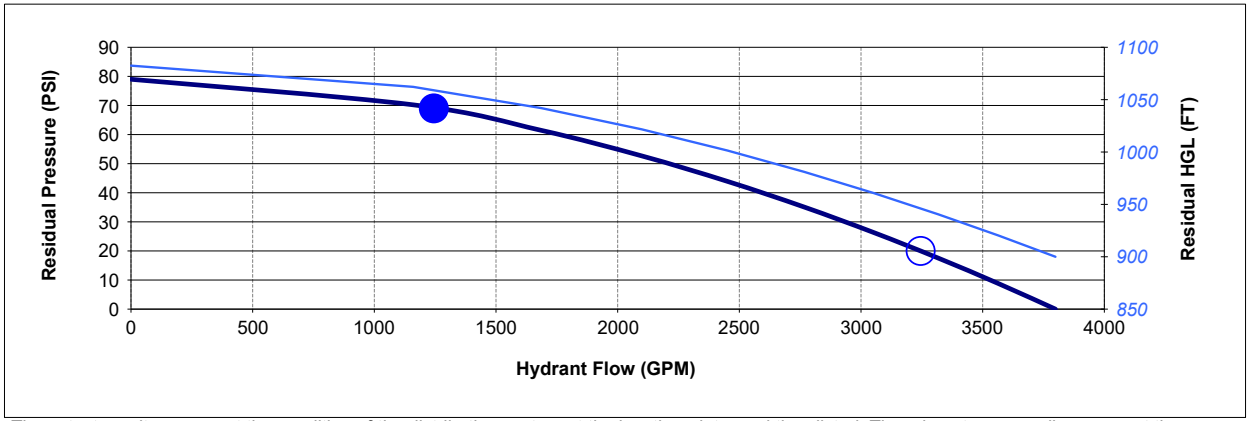
Flow Test Request
Husband & 6th

3/15/2023

Water Flow Test Summary Sheet

Project: Simmons Bank
Test Date and Time: 3/17/23 12:00 AM
Conducted By: Nathan Hancock, Nick Goldsmith

	Residual Hydrant	Flow Hydrant		
Hydrant Location:	Alley between Main and Husband	Husband and 6th		
Hydrant Unique ID:	001992	002015		
Hydrant Elevation:	900	900	FT	
Outlet Coefficient		0.9		*0.9 typical*
Outlet Diameter:		2.5	IN	*2.5 IN typical*
Measured Static Pressure:	79		PSI	
Measured Residual Pressure:	69		PSI	
Pitot Tube Reading:		55	PSI	
Static HGL During Test	1,082			
Residual HGL During Test	1,059			
Calculated Flow During Test$_1$:		1,244	GPM	*calculated*
Projected Flow at 25 PSI Residual:		3,093	GPM	*calculated*
Projected Flow at 20 PSI Residual:		3,245	GPM	*calculated*
25 PSI HGL	958			
20 PSI HGL	946			



NOTES:

1. Flow was calculated using the following formula:

$Q_c = (29.83)(C_d)(D)^2(P)^{½}$

C_d = Coefficient of discharge.

D = Internal orifice or nozzel diameter (IN).

P = Velocity pressure measured with pitot tube (PSI).

2. Flow across the available range of residual pressures was projected using the following formula:

$Q_p=Q_c*[(P_s-P_x)/(P_s-P_r)]^{0.54}$

Q_c = flow calculated during test (GPM)

P_s = static pressure measured during test (PSI)

P_r = residual pressure measured during test (PSI)

P_x = residual pressure at which to predict flow

These test results represent the condition of the distribution system at the location, date, and time listed. They do not necessarily represent the capacity of the system at any specific design condition. Actual system performance can vary seasonally, diurnally, and as the system grows. Please contact the City of Stillwater for additional information regarding distribution system performance under specific design conditions.