

# Instructions for Conducting Flowmeter Check for Pipeline Engineering Studies

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It is always preferable to do the flowmeter reading at the exact location where the pipeline will be hooked up to the water supply, but this may not be possible if the hydrant has not been installed. The next best location would be at a similar elevation with unrestricted flow. Outside hose outlets on houses or other buildings usually are supplied by a ½ inch pipe which can seriously reduce flow and result in an underestimation of the true delivery rate of the well at various pressures. If you must do an initial reading for the flowmeter check at one of these, please indicate this on the Watering System Job Investigation Sheet. Go back later and attach to the hydrant where the pipeline will be hooked up and confirm that the pipeline will work.

Be wary of hydrants that have not been used recently. They usually produce large amounts of sediment laden and rusty water which can turn your flowmeter to junk. Run the hydrant for a few minutes until the water clears up. This is not a bad idea for all hydrants.

Before attaching the flowmeter to the test hydrant, the flow meter needs to be open so that water will be flowing through it when the hydrant is opened up. Be careful and don't open or close the hydrant rapidly to avoid pressure surges through the flowmeter, which can reduce its accuracy.

Slowly close the flowmeter and record the pressure with no flow. Gradually open the flow meter increasing the flow to wide open at various pressures and record the pressure and flow. Following is a table to remind you of what data to collect:

Pressure(psi)									
Flow(gpm)									

Note that as flow increases pressure will typically decrease. You can get a good idea of the pressure switch settings by observing the static pressure (while the flowmeter is closed) after running the flowmeter for some time through the on/off cycle of the well.

**HINT:** Before performing the flowmeter, ask the landowner if the pump is doing any larger tasks such as washing clothes, someone taking a shower in the house, a bulk milk tank being washed or someone using a power washer just to name a few. Large uses of water during a flowmeter test can cause inaccurate readings.

**WARNING:** If the flow meter is being used during freezing weather, make sure the flow meter does not freeze.