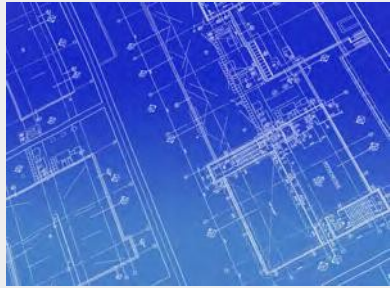


## Avoiding Over-Cleaning Steel and Cast Iron Water Mains



### GENERAL:

Experience has shown that cleaning metal pipes down to the bare surface can invite oxidation which can ultimately result in “red water” complaints.

To reduce the chance of creating oxidation and the problems that it causes, water main cleaning contractors find that it is wise to leave a few mils of buildup and allow it to act as a barrier or liner to the pipe. The “C” value (flow) is affected very little when this technique is used.

### METHODS:

The following methods are used in the field for the purpose of avoiding “over-cleaning”.

1. Monitor the pressure drop during cleaning. This is usually done by attaching a pressure recorder on the upstream end (launch end). When the pressure readings “level out” (following pig runs), cleaning should stop.
2. Time the “pig” runs during cleaning. By using the same volume of water during cleaning and accurately timing the “pig” runs, one can tell when the cleaning has “leveled out”. Cleaning should then be stopped.
3. Time the effluent (black water). When the number of seconds of effluent (black water) are about the same, cleaning should stop.
4. Those with limited “pigging” experience should limit “wire brush” pig runs to 2 or 3.

It is also a good idea to pump “swabs” down the line towards the end of the cleaning job to gauge the cleanliness of the water main. If the pipeline is clean, the “swab” will emerge in good condition. (This will also help sweep out the main.)