

## Importance of the Iron Bacteria Detection in Wells and Water Supply Network of Sari City

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### Abstract

Iron bacteria in wells and water distribution systems Water, associated with quality degradation, destruction and clogging of pipes and wells (with Microbial Influence Corrosion (MIC)) and secondary pollution. In this study, that is a review of studies and research, was investigated Detection methods and the importance of iron bacteria by collecting articles and works done. Also, was observed: Siderocapsa, Sphaerulus and Leptothrix species by doing Gram stain (accordance with ISO 5861 standard and industrial researchs institution of Iran) on isolated sediments of samples taken from several irrigation wells in the Farahabad area of sari city. Each of these species in samples is taken showed that is related to iron concentration. Among the different methods of MIC study's, was found that electrochemical impedance spectroscopy method to can be a suitable option. Should be considered detection of this bacteria and damage caused by them to the facility Due to the presence of abundant water sources such as wells, intakes and ponds in sary city and mazandaran province and generally in all the country. Overall, Water resources as a supplier of water distribution networks in sari is underground and Identification and control of these bacteria is essential to sustainable development in the water supply plans and operation of water resources.

**Keyword:** MIC, well, water supply system, electrochemical impedance spectroscopy.