ABSTRACT

Diah Diah Ayu Nurhaliza, *Comparison of MPN Coliform Values in Well Water in Jeruk Hamlet, Kalidawir Subdistrict, Tulungagung Regency Using MPN Method.* Supervised by : Retno Ikayanti, S.Farm., M.Farm, Apt.

The availability of affordable and quality water is an essential need for the community, especially for drinking water. Some 14.8% of Indonesians use well water as a source of drinking water, which has a high risk of contamination. Some residents of Dusun Jeruk also still use groundwater or well water rather than PDAM water to meet their daily needs so that they are still vulnerable to Coliform contamination. This study aims to evaluate the quality of well water in Jeruk Hamlet, Kalidawir District, Tulungagung Regency, related to the content of Coliform bacteria. The method used in this research is Most Probable Number (MPN). The results showed that the three well water samples, contained Coliform with MPN values of 26 MPN/100 ml, 70 MPN/100 ml and 130 MPN/100 ml. Different MPN values are seen from the distance of well water with septic tanks, namely 7 m, 5 m, and 3 m, seen from the distance between pollutant sources the farther the better the quality of well water and the closer to the pollutant source the higher the Coliform contamination. This study indicates that the quality of well water in the area does not meet the water health standards for the latest sanitary hygiene Regulation of the Minister of Health of the Republic of Indonesia Number 2 of 2023 concerning Implementation Regulations of Government Regulation Number 66 of 2014 concerning Environmental Health with total Coliform is a maximum of 0 CFU/100 ml sample.

Keywords: Well water, Coliform, MPN

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