

ABSTRAK

MELYNIA TRY YULIA. 2022. **Analisis Tingkat Pencemaran Bakteri Coliform pada Air Sumur Permukiman Padat Penduduk Kelurahan Kayuringin Jaya Kota Bekasi sebagai Suplemen Bahan Ajar.** Jurusan Pendidikan Biologi Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi, Tasikmalaya.

Umumnya air bersih yang dimanfaatkan untuk keperluan sehari-hari kualitas maupun kuantitasnya harus memenuhi syarat kesehatan. Salah satunya adalah *Escherichia Coli* dan Total Coliform. Penelitian ini bertujuan untuk mengetahui tingkat pencemaran bakteri Coliform pada air sumur bor permukiman padat penduduk di Kota Bekasi. Penelitian ini merupakan penelitian kuantitatif dengan metode deskriptif kuantitatif dan analisis pengujian parameter fisika, kimia, dan bakteriologis. Penelitian secara bakteriologis pada penelitian ini menggunakan metode *Most Probable Number* (MPN), untuk mengetahui perbedaan bakteri *E.coli* dan total coliform di mana peneliti mengambil 3 sampel air sumur bor di permukiman Kelurahan Kayuringin Jaya Kota Bekasi kemudian dilakukan pengujian laboratorium dan data hasil dari penelitian yang disajikan dalam bentuk tabel dibandingkan dengan persyaratan kualitas air berdasarkan PerMenKes no. 32 tahun 2017 mengenai kualitas air untuk keperluan Higiene dan sanitasi. Hasil penelitian air sumur bor menunjukkan *E.coli* 0 CFU/100ml, dan total Coliform 0 CFU/100ml atau air sumur bor tidak teridentifikasi adanya pencemaran bakteri coliform, meskipun jarak tangki septik dengan sumber air <10 meter dengan kedalaman 20-25 meter, tetapi air sumur bor di Kelurahan Kayuringin Jaya masih berada dibawah ambang batas Peraturan Menteri Kesehatan No.32 Tahun 2017.

Kata Kunci : Coliform, *E.coli*, Kontaminasi, Kualitas Air, Sumur Bor, Tangki septik

ABSTRACT

MELYNIA TRY YULIA. 2022. **Analysis of Pollution Levels of Coliform Bacteria in Well Water in Densely Populated Settlements, Kayuringin Jaya Village, Bekasi City as a Teaching Material Supplement.** Department of Biology Education, Teaching and Education Faculty, Siliwangi University, Tasikmalaya.

Generally, clean water that is used for daily purposes, both in quality and quantity, must meet health requirements. One of them is Escherichia Coli and Total Coliform. This study aims to determine the level of Coliform bacteria pollution in borehole water in densely populated settlements in Bekasi City. This research is a quantitative research with quantitative descriptive method and analysis of physical, chemical, and bacteriological parameter testing. Bacteriological research in this study used the Most Probable Number (MPN) method, to determine the difference in E.coli and total coliform bacteria where researchers took 3 samples of borehole water in the settlement of Kayuringin Jaya Village, Bekasi City, then laboratory testing was carried out and the results of the research data presented in tabular form were compared with water quality requirements based on PerMenKes no. 32 of 2017 concerning water quality for hygiene and sanitation purposes. The results of the borehole water research showed E.coli 0 CFU/100ml, and total Coliform 0 CFU/100ml or borehole water was not identified as coliform bacteria contamination, although the distance between the septic tank and the water source was <10 meters with a depth of 20-25 meters, but the borehole water in Kayuringin Jaya Village was still below the threshold of the Minister of Health Regulation No.32 of 2017.

Keywords : Bore Well, Coliform, Contamination E.coli, Septic tank, Water Quality