

ABSTRAK

Delania Riska Erasih

Hubungan Teknis Bangunan Sumur Gali dengan Kandungan Bakteri *Total Coliform* sebagai Indikator Kualitas Air Bersih

xv + 61 Halaman + 9 Tabel + 9 Gambar + 11 Lampiran

Sumur gali masih digunakan sebagai sumber air bersih oleh masyarakat di Dusun Kras, namun kualitas airnya belum seluruhnya memenuhi syarat kesehatan karena terkontaminasi mikroorganisme. Penelitian ini bertujuan untuk mengetahui hubungan antara teknis bangunan sumur gali dengan kandungan bakteri *Total Coliform* sebagai indikator kualitas air bersih.

Desain penelitian yang digunakan adalah analitik observasional dengan pendekatan *cross-sectional*. Jumlah sampel sebanyak 32 sumur gali, dengan data yang diperoleh melalui observasi teknis bangunan dan uji laboratorium terhadap kandungan *Total Coliform*.

Hasil penelitian teknis bangunan sumur gali dinilai cukup (bibir sumur cukup, dinding sumur kurang, lantai sumur kurang, dan sumber pencemar kurang). Kandungan bakteri *Total Coliform* pada air sumur gali tidak memenuhi syarat. Terdapat hubungan antara teknis bangunan sumur gali dan kandungan *Total Coliform* dengan $p = 0,000 < 0,05$. Penelitian selanjutnya disarankan untuk meneliti perilaku pemilik sumur gali yang dapat mempengaruhi kualitas air sumur.

Kata Kunci: sumur gali, *total coliform*, air bersih.

ABSTRACT

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Technical Relationship of Dug Well Building with Total Coliform Bacteria Content as an Indicator of Clean Water Quality

xv + 61 Pages + 9 Tables + 9 Images + 11 Attachments

Dug wells were still used as a source of clean water by the community in Dusun Kras; however, the water quality did not fully meet health standards due to contamination by microorganisms. This study aimed to determine the relationship between the construction technique of dug wells and the presence of Total Coliform bacteria as an indicator of clean water quality.

The research design used was observational analytics with a cross-sectional approach. The sample consisted of 32 dug wells, with data obtained through technical observations of the well structures and laboratory testing for Total Coliform content.

The results showed that the technical condition of the dug wells was rated as fair (well lips were adequate, well walls were poor, well floors were poor, and sources of pollution were also poor). The Total Coliform content in the well water did not meet the required standards. There was a significant relationship between the construction technique of the dug wells and the Total Coliform content, with a $p\text{-value} = 0.000 < 0.05$.

Future research was recommended to examine the behavior of dug well owners that might affect the water quality.

Keywords: dug well, total coliform, clean water.