

Water Testing & Reporting.

The Central Water Authority (CWA) Laboratory performs chemical and bacteriological testing of water samples in accordance with the requirements of the ISO/IEC 17025:2017 — *General Requirements for the Competence of Testing and Calibration Laboratories*.

For all water samples analysed, the Laboratory issues a test report that includes the following:

- The results of the analysis;
- The applicable drinking water standards, where relevant;
- Measurement uncertainty associated with chemical parameters;
- Confidence intervals for microbiological results.

Statement of Conformity

Upon request, the Laboratory may issue a Statement of Conformity indicating whether a water sample complies with the Drinking Water Standards established under the Environment Act 2024 and prescribed by Regulations GN No. 55 of 1996.

How Compliance is Determined?

Chemical Parameters

1. When not specified by client, statement of conformity is given without considering measurement uncertainty.
2. When the client makes a request to consider measurement uncertainty when giving a statement of conformity, the laboratory provides the following remarks;
 - Compliant (Pass): The result, including its uncertainty, is within the prescribed limit.
 - Non-compliant (Fail): The result, including its uncertainty, exceeds the prescribed limit.
 - Inconclusive: The result is close to the limit and the uncertainty overlaps the boundary, making compliance uncertain. An “Inconclusive” result means that the laboratory cannot confirm compliance due to measurement uncertainty.

Microbiological Parameters

Compliance is determined based on the following criteria;

- **For APHA methods (9221 B & 9221 F):**
 - Pass: Less than 1.1 MPN/100 mL
 - Fail: 1.1 MPN/100 mL or higher
- **For Colilert-18 method (ISO 9308-2):**
 - Pass: Less than 1.0 MPN/100 mL
 - Fail: 1.0 MPN/100 mL or higher

All microbiological results are reported together with an Upper and a Lower limit at 95% confidence intervals.