

Technical Bulletin - ISO/IEC 17025 Water Microbiology Stability and *Legionella* Standards

28 November 2019

UKAS Policy Reminder on Reporting Deviating Samples

ISO/IEC 17025 requires that the condition of samples to be evaluated on receipt and that the laboratory shall consult the customer for further instruction should there be doubt over the suitability of a test item. If the customer requires the item of concern to be tested, the laboratory shall include a disclaimer on reports indicating results may be affected by the deviation (ISO/IEC 17025:2017 Clause 7.4.3).

UKAS assessments regularly cover the requirements for sample handling and the subsequent reporting of water microbiology tests. During the course of assessments this year we continue to identify issues associated with the management of sample stability at accredited laboratories.

It is expected that guidance relating to transport, storage and stability of samples as specified in reference methods and publications is adopted. Relevant references would include for example; Microbiology of Drinking Water Part 2 (2010), BS EN ISO 19458:2006 *Water quality. Sampling for microbiological analysis*. Specific guidance for stability times for *Legionella* water samples is given in BS 7592:2008. It is however recognised that published standard can specify different requirements and the laboratory should be technically aware of current best practice.

UKAS's expectation is that the laboratory's customers will provide sufficient information in order that the laboratory can fully evaluate the suitability of samples at the point of testing, and where information, or lack of it indicates that sample stability requirements have been breached then test reports will reflect this using an appropriate comment. Reports should contain sufficient sample information (sampling time and date in particular) to demonstrate stability times have been observed at the point of testing. In the case of interim or simplified reports however issued to the customer (e.g. spreadsheets, online portal downloads etc), sufficient information should be provided as not to mislead the customer or end user of the test result.

This topic will continue to be a focus of assessments in accredited water microbiology laboratories with mandatory action findings raised as needed. UKAS's expectation is that all laboratories should already be meeting these requirements as they are not new.

Specific Guidance for Laboratories Conducting *Legionella* Testing

Those laboratories that undertake accredited *Legionella* examination of waters and continue to reference methods as being based on ISO 11731:1998 / BS 6068-4.12:1998 will have their testing schedules updated over the coming weeks to identify these references as being withdrawn. UKAS accept that it may remain appropriate to continue to offer testing based on these withdrawn standards as they continue to be quoted in publications such as HSE HSG274 series. It is expected by now that all laboratories referencing these withdrawn standards will have assessed their continued suitability for their customers in order to confirm the continued appropriateness of using these withdrawn standards.

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Laboratories are also reminded that when examining *Legionella* plates, cases of significant overgrowth by competing organisms not inhibited by acid or heat treatments (if used), or contamination by mould, which can potentially compromise the growth or obscure the visibility and detection of the presence of *Legionellae* colonies, cannot be reported as “Not Detected” or “Less Than” as this would be misleading. In such cases testing of the sample should be repeated using dilutions if possible, otherwise a test result cannot be issued, and customers should be informed accordingly. If this is a frequently encountered problem with certain customer waters, the suitability of the test method employed should be reviewed.

Should you require any clarification on the subject covered by this bulletin, please contact; Lee Humpheson, Technical Focus Person - Food, Water and Environmental Microbiology - Lee.Humpheson@ukas.com or Kevin Belson, Technical Manager - Kevin.Belson@ukas.com

Note: Please also see publication TPS 63 *UKAS Policy on Deviating Samples*.