

Proficiency testing provider organisation accredited by NAH under No NAH-8-0003/2014.

SURFACE WATER TESTING

Work instructions 2018/Round II.

1. General instructions

1.1. Sample storage:

Analyses should be performed as soon as possible after arrival of samples and immediately after preparing the prescribed dilutions, if applicable. Samples should be stored unopened at $4 \pm 2^\circ\text{C}$ in the dark until analysis. Please follow the safety instructions for laboratory chemicals when handling samples. Samples should be treated as routine samples.

1.2. Sample preparation:

Samples are preserved according to ISO 5667-3:2013 if applicable. All parameters are present in soluble form, thus samples should not be filtered. Samples are either natural surface water of origin, to be analysed directly, or synthetic solutions which should be diluted by the factor prescribed prior to analysis.

Please remember to check sample pH before analysis.

Measurement results should be reported for the diluted samples in case of synthetic solutions, and for the original samples in case of natural surface water (where dilution is not prescribed).

2. Samples:

2.1. General parameters and elements:

2.1.1. Sample code: SW/BW-G/M-1, SW/BW-G/M-2 Dilution not required

Parameters:

Cl⁻, Ca, Mg, total hardness, Ni, Pb, Zn

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2.1.2. Sample code: SW-M-1, SW-M-2

Dilution not required

Parameter:

Hg

2.2. Nutrients:

2.2.1. Sample code: SW/BW-N-1, SW/BW-N-2

Dilution not required

Parameters and expected concentration ranges:

NH₄⁺-N, NO₃⁻-N, PO₄³⁻-P

Attention! Please note that nutrient measurement results should be reported in nitrogen (N) or phosphorus (P).

2.3. Organic parameters:

2.3.1. Sample code: SW/BW-Org-1, SW/BW-Org-2

Dilution factor: 50

Parameters and expected concentration ranges:

COD_{Mn}	2 – 10	mg/dm³
TOC	3 – 15	mg/dm³

Attention! COD_{Mn} and TOC analyses should be performed within 2 weeks from the time of arrival of samples to your laboratory.

2.3.2. Sample code: SW/BW-Org-3, SW/BW-Org-4

Dilution factor: 100

Parameter and expected concentration range:

MBAS	40 – 200	µg/dm³
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3. Reporting of results:

Participants are asked to report their expanded measurement uncertainty together with the measurement results using a coverage factor of $k = 2$, so that E_n numbers can be calculated during evaluation. E_n numbers help participants to assess the validity of their uncertainty estimation. Please make sure that expanded measurement uncertainties are reported in the **same unit of measurement** as the measurement results.

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Results can be reported as chosen on the application form:

- **Electronically via our website** (www.qualcoduna.hu) using your personal login ID communicated earlier by e-mail. (Choose *Login to online services*, then go to *Reporting of results* to see the online data report forms. After required fields are filled in and data report form is sent, you will receive a confirmation that your data is received. This can be saved and printed for your later use. If you do not receive the confirmation, reporting of your results failed. In this case please try again.
- **By fax (+36-1-872-3806) or post using the data report form** enclosed (also available in pdf format on our website – see *Downloads*). Postal address is **WESSLING Public Benefit Nonprofit Ltd., Proficiency Testing Department (Anonymus utca 6., H-1045 Budapest, Hungary).**

Reporting deadline: June 19, 2018

Please make the appropriate rounding and report in the unit of measurement stated on data report forms. **Results reported after the above deadline or as „< LOD/LOQ” will be excluded from evaluation, results reported in inappropriate units of measurement will not be converted.** (Reference: ISO 13528:2015 Statistical methods for use in proficiency testing by interlaboratory comparisons.)

Budapest, May 10, 2018

Zsigmond Szegény
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