

To: Laboratories participating in ProfTest Syke proficiency tests

Proficiency test NW 06/2026 – Natural water analyses II

ProfTest Syke will organise a proficiency test (PT) for the analysis of chlorophyll *a*, oxygen, salinity, SiO₂, TIC, and TOC in natural waters.

The purpose of this proficiency test is to ensure the comparability and accuracy of the results of the participants. About 30 laboratories are expected to participate in this proficiency test. The measurands and samples of this proficiency test are included in the Water chemistry scheme of the ProfTest Syke accreditation scope (finas.fi/sites/en).

Sample matrices

Synthetic sample, brackish water, and river water.

Timetable

Registration	11 March – 10 April 2026	
Sample dispatch date	5 May 2026 (see Chapter 4 <i>Sample delivery</i>)	
Analysis of the samples	Chlorophyll <i>a</i> , oxygen, TIC	7 April 2026
	TOC	at the latest on 13 May 2026
	Salinity, SiO ₂	at the latest on 18 May 2026
Reporting of the results	6 May – 19 May 2026	

Participation fee

The participation fee is **885 €** (+ VAT) including all measurements and samples.
See detailed information in Chapter 9 *Participation fee*.



Päivi Grönroos,
Coordinator



Mirja Leivuori,
Group manager

ProfTest Syke is proficiency testing provider PT01
(EN ISO/IEC 17043:2010) accredited by FINAS
(Finnish Accreditation Service, finas.fi/sites/en).



ProfTest Syke guide for participants is available on ProfTest Syke website (syke.fi/proftest/en).

ProfTestWEB is the electronic client interface for ProfTest Syke proficiency tests wwwp5.ymparisto.fi/Labtest/en. Within the pages, instructions are available on every page. A short *Getting started* manual is available on ProfTestWEB front page.

Organising the proficiency test

1 Organiser

ProfTest Syke, Finnish Environment Institute Syke
 Address: Mustialankatu 3, FI-00790 Helsinki, Finland
 Email: profTest@syke.fi

Contact

Coordinator: Päivi Grönroos, tel. +358 295 252 174
 Substitute for coordinator: Riitta Koivikko, tel. +358 295 251 750
 Email: firstname.lastname@syke.fi
 Technical assistance: profTest@syke.fi

Analytical experts

Chlorophyll <i>a</i> , oxygen, SiO ₂ , TIC, TOC	Mika Sarkkinen (Syke), tel. +358 295 251 620
Salinity	Riikka Mattsson (Syke), tel. +358 295 251 016
Email: firstname.lastname@syke.fi	

Expert laboratory Finnish Environment Institute, Oulu and Helsinki (T003, finas.fi/sites/en)

2 Sample and measurands

The sample matrices in this proficiency test are: synthetic sample, brackish water and river water. Samples, measurands, concentration ranges and sample preservations are presented in Appendix 1.

Sample A1K is a synthetic chlorophyll *a* sample in ethanol. The sample is used to check the spectrophotometer absorbance. The laboratories using fluorescence spectroscopy can use the sample as an external assurance for spectrophotometer, which is used to check the calibration of the spectrofluorometer.

The dissolved oxygen in the oxygen samples has been precipitated into a solid manganese precipitate in accordance with standard EN 25813.

Note! Check the samples volumes and, in case needed, order additional samples.

Note! The TOC samples can be ordered as preserved in hydrochloric acid or phosphoric acid. Please choose the right type of preservation when placing your order.

3 Registration

The registration for this proficiency test is open until **10 April 2026**.

Registration is done via the electronic client interface, ProfTestWEB: wwwp5.ymparisto.fi/Labtest/en. If there are problems when using ProfTestWEB or you need username and password, please contact profTest@syke.fi.

4 Sample delivery

The sample dispatch day for national participants is **5 May 2026**. To ensure timely arrival, the samples are dispatched earlier for participants abroad.

If the sample package does not arrive **at the latest on 6 May 2026**, or there are missing and/or broken sample containers, please contact the provider immediately (profest@syke.fi). More contact details in Chapter 1 *Organiser*.

5 Sample storage and analysis

The samples are stored at 4 °C and they are stabilised to room temperature before analysis. **Samples are analysed within the laboratory where they are delivered to, and analyses are conducted according to the participant's normal procedures.**

Other samples except oxygen samples, chlorophyll *a* synthetic sample, and TOC samples are unpreserved. Samples are preserved immediately after arrival if the participant's analytical method requires it.

For the samples and measurements, replicated analyses are done no more than according to the method of analysis or the instructions within the sample letter.

Timetable for sample analyses is on the first page of this letter.

6 Reporting the results

The participant results are reported to Profest Syke at the latest on **19 May 2026**.

Profest Syke delivers the preliminary results report to the participants at the latest in the week 23 (1 – 5 June 2026). The final report will be published at the latest in October 2026 and it is then available on ProfestWEB and on Profest Syke website (syke.fi/profest/en). The availability of the report will be informed to the participants.

7 Assigned values and evaluation of the results

Either the calculated concentration (synthetic samples) or the robust mean, the median, or the mean of the results reported by the participants will be used as the assigned value for the measurand. The calculation of the assigned value is based on the results reported according to the given guidelines. Also, when needed, the result of the expert laboratory can be used as the assigned value. The evaluation of the results will be based on z scores. The preliminary values for standard deviation for proficiency assessment will be given in the cover letter of the sample. In special cases also E_n or $D\%$ scores can be used for the performance evaluation.

8 Confidentiality

The results of participants are treated anonymously. The participants' results and the preliminary results report of the round are confidential and shall not be shared with third parties during the implementation of the round.

9 Participation fee

The participation fee is **885 €** (+ VAT) including all measurements and samples. The basic fee is **460 €** (+ VAT) and the fees for each sample and measurand are as follows:

Chlorophyll <i>a</i>	40 €/ sample	(3 samples)
Oxygen	30 €/sample	(2 samples)
Salinity	30 €/ sample	(2 samples)
SiO ₂	20 €/sample	(3 samples)
TIC	25 €/sample	(2 samples)
TOC	25 €/sample	(3 samples)

The invoice will be sent after the delivery of the preliminary result report. If the participant orders additional samples, they are charged according to the prices listed above.

Note! In Finland VAT is 25,5 %. Further, if the invoicing address or any other additional information has to be corrected after the invoicing, the extra handling cost will be charged. The participant is also responsible for possible custom clearance or customs fee of the sample.

10 Appendices

Appendix 1 Samples, measurands, concentration ranges and preservations.

Appendix 1. Samples, measurands, concentration ranges and preservations.

Measurand	Sample matrix	Sample code	Sample volume ¹⁾ and container	Concentration range and preservation
Chlorophyll <i>a</i>	Synthetic sample	A1K	30 ml, glass tube	0.01-0.5 abs/cm <i>Preserved with ethanol at Syke.</i>
	Brackish water	B2K	1000 ml, plastic bottle	1–50 µg/l
	River water	N3K		
Oxygen O₂	Brackish water	B2O	circa 100 ml, glass bottle	5–40 mg/l <i>Precipitated at Syke acc. to EN 25813</i>
	River water	N3O		
Salinity	Synthetic sample	A1S	250 ml, plastic bottle	0.5–8 PSU
	Brackish water	B2S		
SiO₂	Synthetic sample	A1P	250 ml, plastic bottle	0.5–40 mg/l
	Brackish water	B2P		
	River water	N3P		
TIC	Synthetic sample	A1T	24 ml, gas tight glass tube	1–10 mg/l
	River water	N3T		
TOC	Synthetic sample	A1C	125 ml, plastic bottle	1–20 mg/l <i>Preserved at Syke ²⁾:</i> <i>1 ml 2 mol/l HCl/100 ml or</i> <i>1 ml 2 mol/l H₃PO₄/100 ml</i>
	Brackish water	B2C		
	River water	N3C		

¹⁾ Please check the sample volume and, in case needed, order additional samples.

²⁾ Please choose the preservation acid when ordering samples.

Sample codes (first letter showing sample matrix):

A = Synthetic sample

B = Brackish water

G = Natural water (river water)