16 December 2025

To: Laboratories participating in Proftest Syke proficiency tests

Proficiency test NW 02/2026 – Natural water analyses I

Proftest Syke will organise a proficiency test (PT) for the analysis of alkalinity, conductivity 25 °C, NH_4-N, NO_2-N+NO_3-N, N_{tot}, PO_4-P, PO_4-$P_{dissolved}$, P_{tot}, $P_{tot,\ dissolved}$, and pH in natural waters.

The purpose of this proficiency test is to ensure the comparability and accuracy of the results of the participants. About 35 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	**16 December 2025 – 23 January 2026**	
Sample dispatch date	17 February 2026 (see Chapter 4 *Sample delivery*)	
Analysis of the samples	Alkalinity	19 February 2026
	NH_4-N, NO_2-N+NO_3-N, PO_4-P, PO_4-$P_{dissolved}$	19 February 2026
	pH, conductivity 25 °C	19 February 2026
	N_{tot}, P_{tot}, $P_{tot,\ dissolved}$	at the latest on 6 March 2026
Reporting the participant results	**18 February – 6 March 2026**	

Participation fee

The participation fee is **884 €** (+ VAT) including all measurements and samples.
See detailed information in Chapter 9 *Participation fee.*

Mervi Pajula,
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, Research Infrastructure
Address: Mustialankatu 3, FI-00790 Helsinki, Finland
Email: proftest@syke.fi

Contact

Coordinator: Mervi Pajula, tel. +358 295 252 320
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Expert laboratory

Finnish Environment Institute, Oulu (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.

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

3 Registration

The registration for this proficiency test is open until **23 January 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 **17 February 2026**. To ensure timely arrival, the samples are dispatched earlier for participants abroad.

If the sample package does not arrive **at the latest on 18 February 2026**, or there are missing and/or broken sample containers, please contact the provider immediately (proftest@syke.fi). More contact details in Chapter 1 *Organiser*.

5 Sample storage and analysis

The samples are stored at 4 °C. Samples are analysed within the laboratory where they are delivered to, and analyses are conducted according to the participant's normal procedures. Samples A1N, B2N and N3N are autoclaved, all the other samples are not preserved. The samples are preserved immediately at the arrival if required by the participant's normal procedure.

The nutrient analyses are performed as replicate determinations, and two results are reported. For the other samples and measurements, replicated analyses should not be performed more than what is required by the laboratory's normal practice.

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

6 Reporting the results

The participant results are reported to Proftest Syke at the latest on **6 March 2026**. An electronic survey about the methodological backgrounds shall be reported to Proftest Syke together with results.

Proftest Syke delivers the preliminary result report to the participants latest in the week 12 (16 – 20 March 2026). The final report will be published at the latest in June 2026 and it is then available via ProftestWEB and via Proftest Syke website (syke.fi/proftest/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 standard deviation for proficiency assessment will be given in the cover letter of the samples. 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 should not be shared with third parties during the implementation of the round.

9 Participation fee

The participation fee for this proficiency test is **884 €** (+ VAT) including all measurements and samples. The final fee includes the basic charge **460 €** (+ VAT) and the measurement and sample-specific fees (+ VAT) based on the order placed at registration, as follows:

Alkalinity	28 €/sample	(3 samples)
pH, conductivity 25 °C	15 €/sample	(4 samples)
N compounds	40 €/sample	(3 samples)
P compounds	30 €/sample	(3 samples)
Dissolved P compounds	35 €/sample	(2 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

Measurands	Sample matrix	Sample code	Sample volume [1], container and *preservation*	Concentration range
Alkalinity	Synthetic sample	**A1A**	250 ml, plastic bottle Not preserved at Syke.	0.02 – 3 mmol/l
	Brackish water	**B2A**		
	River water	**N3A**		
Conductivity 25 °C	Synthetic sample	**A1J**	100 ml, glass bottle Not preserved at Syke.	2 – 1200 mS/m
	Brackish water	**B2H**		
	River water	**N3H**		
NH_4-N **NO_2-N+NO_3-N** **N_{tot}**	Synthetic sample	**A1N**	Further details will be provided in the cover letter of the samples.	NH_4-N > 10 µg/l NO_2-N+NO_3-N > 100 µg/l N_{tot} > 100 µg/l
	Brackish water	**B2N**		
	River water	**N3N**		
PO_4-P **P_{tot}**	Synthetic sample	**A1P**	250 ml, plastic bottle Not preserved at Syke.	PO_4-P > 5 µg/l P_{tot} > 10 µg/l
	Brackish water	**B2P**		
	River water	**N3P**		
PO_4-$P_{dissolved}$ **$P_{tot,\ dissolved}$**	Brackish water	**B4P**	500 ml, plastic bottle Not preserved at Syke.	PO_4-$P_{dissolved}$ > 5 µg/l $P_{tot,\ dissolved}$ > 5 µg/l
	River water	**N5P**		
pH	Synthetic sample	**A1H**	100 ml, glass bottle Not preserved at Syke.	5 – 9 pH unit
	Brackish water	**B2H**		
	River water	**N3H**		

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

Sample codes (first letter showing sample matrix):
A = Synthetic sample
B = Brackish water
N = River water