3 December 2025

To: Laboratories participating in Proftest Syke proficiency tests

Proficiency test SPW 01/2026 – Swimming pool water analyses

Proftest Syke will organise a proficiency test (PT) for the analysis of free, combined and total chlorine, $KMnO_4$, NO_3^-, pH, turbidity, and urea in swimming pool waters.

The purpose of this proficiency test is to ensure the comparability and accuracy of the results of the participants. About 25 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 (for urea) and swimming pool water.

Timetable

Registration	**3 December 2025 – 7 January 2026**
Sample dispatch date (national participants)	27 January 2026 (see Chapter 4 *Sample delivery)*
Analysis of the samples	**All samples are analysed on 29 January 2026**
Reporting of the results	**28 January – 3 February 2026**

Participation fee

The participation fee is **820 €** (+ VAT) including all measurements and samples.
See detailed information in Chapter 9 *Participation fee.*

Mirja Leivuori,
Group manager, Coordinator

Päivi Grönroos,
Substitute for coordinator

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:	Mirja Leivuori, tel. +358 295 251 366
Substitutes for coordinator:	Päivi Grönroos, tel. +358 295 252 174
Email:	firstname.lastname@syke.fi
Technical assistance:	proftest@syke.fi

Analytical experts

Free, combined and total chlorine, urea	Marjo Laurén (MetropoliLab Oy), tel. +358 10 391 3595 firstname.lastname@metropolilab.fi
NO_3^-, pH, turbidity, $KMnO_4$	Mika Sarkkinen (Syke), tel. +358 295 251 620 firstname.lastname@syke.fi

Expert laboratory

Finnish Environment Institute, Oulu (T003, finas.fi/sites/en)

Subcontracting

Chlorine and urea measurements: MetropoliLab Oy (T058, finas.fi/sites/en)

2 Sample and measurands

The sample matrices in this proficiency test are: synthetic sample (for urea) and swimming pool 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 **7 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 **27 January 2026**. To ensure timely arrival, the samples are dispatched earlier for participants abroad.

If the sample package does not arrive **at the latest on 28 January 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 and they are stabilised to room temperature before analysis. The samples are preserved if required by the participant´s normal procedure. Samples are analysed within the laboratory where they are delivered to, and analyses are conducted according to the participant's normal procedures. For the samples and measurements, replicated analysis are done no more than according to the method of analysis or the instructions within the sample letter**.** For the analysis for the chlorine, turbidity and urea two replicate result are reported.

All samples are analysed on 29 January 2026.

6 Reporting the results

The participant results are reported to Proftest Syke at the latest on **3 February 2026**.

Proftest Syke delivers the preliminary result report to the participants latest in the week 7 (9 – 13 February 2026). The final report will be published at the latest in May 2026 and it is then available on ProftestWEB and on 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 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 must not be shared with third parties during the implementation of the round.

9 Participation fee

The participation fee is **820 €** (+ VAT) including all measurements and samples. The basic fee is **460 €** (+ VAT) and the fees for each sample and measurand are as follows:

Chlorine (free, combined and total)	47 €/ sample	(2 samples)
pH	22 €/ sample	(2 samples)
NO_3^-	22 €/ sample	(2 samples)
KMnO4	22 €/ sample	(2 samples)
Turbidity	27 €/ sample	(2 samples)
Urea	40 €/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 type	Sample code	Sample volume [2], container and *preservation* [3]	Concentration range
Chlorine, combined [1] **[$Cl_{2, comb}$]** **Chlorine, free** [1] **[$Cl_{2, free}$]** **Chlorine, total** [1] **[$Cl_{2, total}$]**	Swimming pool water	**U1K**	500 ml plastic bottle *not preserved*	$Cl_{2, comb}$ < 1 mg/l $Cl_{2, free}$ < 2 mg/l $Cl_{2, total}$ < 2.5 mg/l
	Swimming pool water	**U2K**		
	Addition solution	**L1K**	4 ml vial	
	Addition solution	**L2K**		
$KMnO_4$	Swimming pool water	**U1P**	100 ml plastic bottle *preserved with H_2SO_4*	5 – 15 mg/l
	Swimming pool water	**U2P**		
NO_3^-	Swimming pool water	**U1N**	100 ml plastic bottle *not preserved*	15 – 60 mg/l
	Swimming pool water	**U2N**		3 – 15 mg/l
pH	Swimming pool water	**U1H**	100 ml glass bottle *not preserved*	5 – 8 pH units
	Swimming pool water	**U2H**		
Turbidity	Swimming pool water	**U1S**	250 ml plastic bottle *not preserved*	0.2 – 1.5 FNU/FTU
	Swimming pool water	**U2S**		
Urea	Synthetic sample	**A1U**	250 ml plastic bottle *not preserved*	0.3 – 2 mg/l
	Swimming pool water	**U2U**		

[1] Combined, free and total chlorine will be analysed from the same sample container. Samples are prepared by the participant according to the guidelines given in the sample letter. The addition solutions L1K and L2K are included in the order.

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

[3] $KMnO_4$ samples U1P and U2P have been preserved. Other samples have not been preserved.

Sample codes (first letter showing the sample matrix):
A = Synthetic sample
U = Swimming pool water
L = Addition solution