

Proficiency Testing Program  
Organised by  
Center for Laboratory Proficiency Testing  
Department of Science Service,  
Ministry of Science and Technology, Bangkok, Thailand

pH - value in water

PTEN - W03 - 1801

21 February 2018

SUMMARY SHEET

Laboratory Name : Technical Training and Support Service, Center for Scientific and Technological Equipment, Walailak University

Laboratory Code : W03 - 1801 - 246

Test item	Sample	No. of results	Assigned value		Standard deviation for proficiency assessment ( $\sigma_{pt}$ )	Lab's result		z-score
			$x_{pt}$	MU		Value	MU	
pH-value at 25 °C	A	382	4.300	0.017	0.050	4.32	0.06	0.40
	B	382	9.729	0.022		0.050	9.59	0.12

Note

- Assigned values ( $x_{pt}$ ) are the reference values determined by reference laboratory (National Institute of Metrology, Thailand).
- Standard deviations for proficiency assessment ( $\sigma_{pt}$ ) are the target standard deviations by perception from the standard methods for the examination of water and wastewater, AWWA, APHA, 23<sup>rd</sup> ed., 2017. part 4500-H<sup>+</sup> B. and ISO 10523:2008, Water quality-determination of pH.
- MU is measurement uncertainty at 95% confidence level.
- Each z-score marked with "A" is an outlier ( $|z| \geq 3.0$ ). Therefore, laboratory which is marked with "A" shall investigate the result. Laboratory is also encouraged to review the result which has an absolute z - score value between two and three ( $2.0 < |z| < 3.0$ ) marked with "W".
- This summary sheet shall be read in conjunction with the final report.

Reported by

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