



## SUMMARY SHEET

PTS-0763



Final report

2020 Proficiency Testing Program of Physical and Chemical Properties in Soil  
Organized by System Research of Soil and Water Quality Sub-group,  
Agricultural Chemistry Group,  
Agricultural Production Sciences Research and Development Division,  
Department of Agriculture

Report No: 01/2020  
Participant (TH): ศูนย์เครื่องมือวิทยาศาสตร์และเทคโนโลยี มหาวิทยาลัยวลัยลักษณ์  
(EN): The Center for Scientific and Technological Equipments,  
Walailak University  
Participant ID: 63-S-27

Parameters	No. of reported results	Assigned Values ( $X_{pt}$ )	Standard Deviations for Proficiency assessment ( $\sigma_{pt}$ )	Reported mean results	z-score
pH	48	7.33	0.25	7.50	0.68
Electrical Conductivity (dS/m at 25 °C)	47	0.164	0.029	0.147	-0.59
Organic Matter (%)	49	2.66	0.21	2.62	-0.19
Available Phosphorus (mg/kg)	43	510.8	51.1	542	0.61
Exchangeable Potassium (mg/kg)	42	343.8	24.1	315	-1.20
Exchangeable Calcium (mg/kg)	36	2925.7	204.8	3216	1.42
Exchangeable Magnesium (mg/kg)	36	252.7	17.7	272	1.09

## Note:

- Assigned values ( $X_{pt}$ ) are the robust averages calculated from the results reported by participants in this round, according to Algorithm A (ISO 13528: 2015).
- Standard deviations for proficiency assessment ( $\sigma_{pt}$ ) of pH and electrical conductivity are calculated from the results reported by participants in this round, according to Algorithm A (ISO 13528: 2015), while others are the reproducibility standard deviations from soil reference method (WPEP, 2013).
- Laboratory whose z-score marked with "A" means unacceptable result ( $|z\text{-score}| \geq 3.0$ ) and z-score marked with "W" means warning result ( $2.0 < |z\text{-score}| < 3.0$ ). Laboratory shall review and investigate result.
- This summary sheet shall be read in conjunction with the final report, available at <https://forms.gle/XyhU6PEjTVPzeXWm7>

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