



Proficiency Testing Program

Organised by

Center for Laboratory Proficiency Testing

Department of Science Service,

Ministry of Science and Technology, Bangkok, Thailand

※ Heavy metals (Cd, Cr, Ni and Pb) in soil (pilot study)

PTEN - SL01 - 1801

9 July 2018

SUMMARY SHEET

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

Laboratory Code : SL01 - 1801 - 038

Test items (mg/kg)	Number of results	Assigned value (X_{pt})	Standard deviation for proficiency assessment (σ_{pt})	Lab's result		z-score
				Value	MU	
Cadmium (Cd)	68	4.91	0.98	5.30	-	0.40
Chromium (Cr)	68	41.01	8.20	55.4	-	1.75
Nickel (Ni)	65	24.55	4.91	27.8	-	0.66
Lead (Pb)	70	27.02	5.40	26.7	-	-0.06

Note

- Assigned values (X_{pt}) are the robust averages of the participant results in this round, calculated by using Algorithm A (ISO 13528:2015).
- Standard deviations for proficiency assessment (σ_{pt}) are the target standard deviations from expert judgement.
- 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.

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