Explanation Monthly Review Report

OELM-MRR_EN.v6[08-2019]

Monthly Review Report

The Monthly Review Report gives a summary of results for the month shown. Click on the field arrow in the 'Sample' box and select the sample/month for which you wish to see the report. If results for more than one method/instrument have been submitted, separate reports may be selected from the 'Method Set' box.

The Unit refers to the units in which you have chosen to report your results (either mass or molar).

Your Z-score is calculated as $(x-X)/\sigma_{PT}$ where x = your result, X = the assigned value (robust mean of all results) and σ_{PT} = the standard deviation for proficiency testing, defined by the organisers before the launch of the annual cycle on the basis of biological variability and/or the state of the art (see for example Arnaud *et al.* Clinical Chemistry 2008; 54: 1892-9). The tables below show, for each test, the quality specifications (QS) for the results, calculated as 2 σ_{PT}, i.e. the intervals around the assigned value corresponding to z-scores between +2 and -2 when performance is acceptable. A z-score of more than ±3 indicates unsatisfactory performance.

Test Serum	**QS criteria($2\sigma_{PT}$) for proficiency assessment**	
Aluminium	± 0.18 µmol/L or ± 20%, whichever is the greater	± 5.00 µg/L or ± 20%, whichever is the greater
Cobalt	± 25 nmol/L or ± 15%, whichever is greater	± 1.50 µg/L or ± 15%, whichever is greater
Chromium	± 38 nmol/L or ± 20%, whichever is greater	± 2.00 µg/L or ± 20%, whichever is greater
Copper	± 0.84 µmol/L or ± 12%, whichever is the greater	± 53 µg/L or ± 12%, whichever is the greater
Lithium	± 0.03 mmol/L or ± 10%, whichever is greater	± 0.20 mg/L or ± 10%, whichever is greater
Magnesium	± 0.01 mmol/L or ± 7.2%, whichever is greater	± 0.24 mg/L or ± 7.2%, whichever is greater
Selenium	± 0.072 µmol/L or ± 12%, whichever is the greater	± 5.69 µg/L or ± 12%, whichever is the greater
Thallium	± 0.05 nmol/L or ± 25%, whichever is greater	± 0.01 µg/L or ± 25%, whichever is greater
Vanadium	± 0.20 nmol/L or ± 25%, whichever is greater	± 0.01 µg/L or ± 25%, whichever is greater
Zinc	± 1.20 µmol/L or ± 15%, whichever is the greater	± 78.5 µg/L or ± 15%, whichever is the greater

Test Blood	**QS criteria($2\sigma_{PT}$) for proficiency assessment**	
Arsenic	± 100 nmol/L or ± 15%, whichever is the greater	± **7.5** µgl/L or ± 15%, whichever is the greater
Cadmium	± 4.00 nmol/L or ± 20%, whichever is greater	± 0.45 µg/L or ± 20%, whichever is greater
Cobalt	± 25 nmol/L or ± 20%, whichever is greater	± 1.50 µg/L or ± 20%, whichever is greater
Chromium	± 38 nmol/L or ± 20%, whichever is greater	± 2.00 µg/L or ± 20%, whichever is greater
Mercury	± 5.00 nmol/L or ± 25%, whichever is greater	± 1.00 µg/L or ± 25%, whichever is greater
Magnesium	± 0.01 mmol/L or ± 7.2%, whichever is greater	± 0.24 mg/L or ± 7.2%, whichever is greater
Manganese	± 30.00 nmol/L or ± 15%, whichever is greater	± 1.65 µg/L or ± 15%, whichever is greater
Lead	± 0.10 µmol/L or ± 10%, whichever is greater	± 20.00 µg/L or ± 10%, whichever is greater
Selenium	± 0.072 µmol/L or ± 12%, whichever is the greater	± 5.69 µg/L or ± 12%, whichever is the greater
Thallium	± 0.98 nmol/L or ± 25%, whichever is greater	± 0.20 µg/L or ± 25%, whichever is greater
Zinc	± 1.50 µmol/L or ± 10%, whichever is the greater	± 0.10 mg/L or ± 10%, whichever is the greater

Test Urine	**QS criteria($2\sigma_{PT}$) for proficiency assessment**	
Aluminium	± 0.08 µmol/L or ± 20%, whichever is the greater	± 2.16 µgl/L or ± 20%, whichever is the greater
Antimony	± 4.93 nmol/L or ± 15%, whichever is the greater	± 0.60 µgl/L or ± 15%, whichever is the greater
Arsenic	± 100 nmol/L or ± 15%, whichever is the greater	± 7.5 µgl/L or ± 15%, whichever is the greater
Berillyum	± 4.44 nmol/L or ± 20%, whichever is the greater	± 0.04 µgl/L or ± 20%, whichever is the greater
Cadmium	± 4.00 nmol/L or ± 15%, whichever is greater	± 0.45 µg/L or ± 15%, whichever is greater
Cobalt	± 25 nmol/L or ± 15%, whichever is greater	± 1.50 µg/L or ± 15%, whichever is greater
Chromium	± 58 nmol/L or ± 20%, whichever is greater	± 3.00 µg/L or ± 20%, whichever is greater
Copper	± 0.25 µmol/L or ± 20%, whichever is the greater	± 16 µg/L or ± 20%, whichever is the greater
Iodine	± 150 nmol/L or ± 25%, whichever is greater	± 19 µg/L or ± 25%, whichever is greater
Iron	± 0.60 µmol/L or ± 20%, whichever is the greater	± 0.03 mg/L or ± 20%, whichever is the greater
Mercury	± 15.00 nmol/L or ± 30%, whichever is greater	± 3.00 µg/L or ± 30%, whichever is greater
Magnesium	± 0.03 mmol/L or ± 12%, whichever is greater	± 0.73 mg/L or ± 12%, whichever is greater
Manganese	± 10.00 nmol/L or ± 25%, whichever is greater	± 0.55 µg/L or ± 25%, whichever is greater
Nickel	± 25.5 nmol/L or ± 15%, whichever is greater	± 1.50 µg/L or ± 15%, whichever is greater

Test Urine	QS criteria($2\sigma_{PT}$) for proficiency assessment	
Lead	± 40.00 nmol/L or ± 20%, whichever is greater	± 8.3 µg/L or ± 20%, whichever is greater
Selenium	± 0.30 µmol/L or ± 25%, whichever is the greater	± 23.7 µg/L or ± 25%, whichever is the greater
Thallium	± 0.49 nmol/L or ± 25%, whichever is greater	± 0.10 µg/L or ± 25%, whichever is greater
Vanadium	± 10.00 nmol/L or ± 25%, whichever is greater	± 0.50 µg/L or ± 25%, whichever is greater
Zinc	± 1.20 µmol/L or ± 15%, whichever is the greater	± 0.08 mg/L or ± 15%, whichever is the greater

Your performance score is calculated as follows (ignoring the + or – sign).

Z-score	Performance score	Print Colour
≤1	3	black
>1 – 2	2	black
>2 – 3	1	amber
>3	0	red
No result submitted	0	red

Your cumulative performance score is the sum of all performance scores of the samples in the annual cycle you have assayed untill now. Your cumulative performance score is printed in green, amber or red. A green score implies a satisfying score and is applicable for scores >66% of the maximum achievable score. A red score indicates unsatisfactory performance and is applicable for scores ≤33% of the maximum achievable score. An amber score is questionable but will be fully unsatisfactory when there is no improvement in the rest of the year (score >33% and ≤66% of the maximum achievable score).

The maximum achievable score for each sample is 3 (see above). The cumulative maximum achievable score is equal to the sample number (1 to 24) multiplied by 3. The colour of your cumulative score is linked to the percentage of the maximum achievable score according to the criteria in the table below..

Cumulative score (%)	Score	Colour
>66	satisfactory	green
33 – 66	questionable	amber
≤33	unsatisfactory	red

The median cumulative performance score refers to the scores of all participants.

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If applicable a sample specific comment can be present at the report.