

## EQA round: TE2/24 - Trace Elements

Deadline: 24.9.2024

Setup: all data

RoM = robust average	AV = assigned value	D <sub>max</sub> = acceptable difference
SD = standard deviation	CVE = consensus of the experts	LL = lower limit
CV = coefficient of variation	U <sub>AV</sub> = expanded uncertainty of the assigned value (k = 2)	UL = upper limit
N <sub>tot</sub> = total number of the results		N <sub>eva</sub> = number of the results assessed
N <sub>out</sub> = number of the results removed before calculation		N <sub>suc</sub> = number of successful results
		S <sub>rel</sub> = relative success

Test Sample Group	[unit]	RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	Comparability					N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL			
<b>Set 1 (plasma)</b>														
(361) Al - plasma	[µmol/L]				1							1	1	100
<b>Sample A1</b>												1	1	100
All results		0,549			1	0	CVE	0,534	0,096	25%	0,4	0,668	1	
<b>Sample B1</b>												1	1	100
All results		1,57			1	0	CVE	1,4	0,21	25%	1,05	1,75	1	
(360) Co - plasma	[nmol/L]				1							1	1	100
<b>Sample A1</b>												1	1	100
All results		80,1			1	0	CVE	80,8	7,8	25%	60,6	101	1	
<b>Sample B1</b>												1	1	100
All results		47,9			1	0	CVE	48,2	5,1	25%	36,1	60,3	1	
(357) Cr - plasma	[nmol/L]				2							2	2	100
<b>Sample A1</b>												2	2	100
All results		69,8	4,6	6,6	2	0	CVE	64,4	10	25%	48,3	80,5	2	
<b>Sample B1</b>												2	2	100
All results		347	25	7,3	2	0	CVE	337	43	25%	252	422	2	
(351) Cu - plasma	[µmol/L]				24							24	24	100
<b>Sample A1</b>												24	24	100
All results		13,5	1,3	9,9	24	0	CVE	14	1,2	25%	10,5	17,5	24	
<b>Sample B1</b>												24	24	100
All results		20,2	2	10	24	0	CVE	20,9	1,8	25%	15,6	26,2	24	
(359) Mg - plasma	[mmol/L]				5							5	5	100
<b>Sample A1</b>												5	5	100
All results		0,74	0,03	4	5	0	CVE	0,749	0,049	25%	0,561	0,937	5	
<b>Sample B1</b>												5	5	100
All results		1,03	0,03	2,9	5	0	CVE	1,04	0,058	25%	0,78	1,3	5	
(352) Mn - plasma	[nmol/L]				3							3	2	67
<b>Sample A1</b>												3	2	67
All results		59,5	9,7	16	3	0	CVE	56,4	7,3	25%	42,3	70,5	3	
<b>Sample B1</b>												3	3	100
All results		394	9,4	2,4	3	0	CVE	400	40	25%	300	500	3	
(355) Se - plasma	[µmol/L]				5							5	5	100
<b>Sample A1</b>												5	5	100
All results		0,88	0,089	10	5	0	CVE	0,913	0,1	25%	0,684	1,15	5	
<b>Sample B1</b>												5	5	100
All results		1,26	0,062	4,9	5	0	CVE	1,23	0,12	25%	0,922	1,54	5	
(350) Zn - plasma	[µmol/L]				23							23	18	78
<b>Sample A1</b>												23	18	78
All results		11,4	1,6	14	23	0	CVE	10,9	1,2	25%	8,17	13,7	23	
<b>Sample B1</b>												23	23	100
All results		28,6	1,9	6,5	23	0	CVE	29,5	2,2	25%	22,1	36,9	23	
<b>Set 2 (blood)</b>														
(353) Cd - blood	[nmol/L]				2							2	2	100
<b>Sample A2</b>												2	2	100
All results		11,7	0,1	0,85	2	0	CVE	13,3	1,4	25%	9,97	16,7	2	
<b>Sample B2</b>												2	2	100
All results		40	0,85	2,1	2	0	CVE	43,7	3,7	25%	32,7	54,7	2	
(356) Hg - blood	[nmol/L]				1							1	1	100
<b>Sample A2</b>												1	1	100
All results		18,9			1	0	CVE	17,4	3	25%	13	21,8	1	
<b>Sample B2</b>												1	1	100
All results		46,9			1	0	CVE	43,9	6	25%	32,9	54,9	1	
(339) Mn - blood	[nmol/L]				2							2	0	0
<b>Sample A2</b>												2	0	0
All results		139	0	0	2	1	CVE	207	22	25%	155	259	2	
<b>Sample B2</b>												2	1	50
All results		479	0	0	2	1	CVE	471	44	25%	353	589	2	
(354) Pb - blood	[nmol/L]				7							7	6	86
<b>Sample A2</b>												7	6	86
All results		326	7	2,1	7	1	CVE	321	29	25%	240	402	7	
<b>Sample B2</b>												7	6	86
All results		2790	250	8,8	7	3	CVE	2970	220	25%	2220	3720	7	

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Test Sample Group	[unit]	RoM	SD	CV [%]	N <sub>tot</sub>	N <sub>out</sub>	Comparability					N <sub>eva</sub>	N <sub>suc</sub>	S <sub>rel</sub> [%]
							AV	U <sub>AV</sub>	D <sub>max</sub>	LL	UL			
<b>Set 3 (urine)</b>														
(348) Al - urine	[µmol/L]				1							1	1	100
Sample A3												1	1	100
All results	0,425				1	0	CVE	0,426	0,082	25%	0,319	0,533	1	
Sample B3												1	1	100
All results	2,65				1	0	CVE	2,47	0,36	25%	1,85	3,09	1	
(343) Cd - urine	[nmol/L]				3							3	3	100
Sample A3												3	3	100
All results	29,7	1,1	3,7		3	0	CVE	29,1	3,4	25%	21,8	36,4	3	
Sample B3												3	3	100
All results	97	4,1	4,2		3	0	CVE	93,6	8,9	25%	70,2	117	3	
(347) Cr - urine	[nmol/L]				2							2	2	100
Sample A3												2	2	100
All results	42,2	2	4,8		2	0	CVE	44,2	3,8	25%	33,1	55,3	2	
Sample B3												2	2	100
All results	416	2,9	0,7		2	0	CVE	412	35	25%	309	515	2	
(341) Cu - urine	[µmol/L]				6							6	5	83
Sample A3												6	5	83
All results	0,16	0,03	19		6	0	CVE	0,181	0,022	25%	0,135	0,227	6	
Sample B3												6	5	83
All results	1,01	0,079	7,9		6	0	CVE	1,08	0,082	25%	0,81	1,35	6	
(346) Hg - urine	[nmol/L]				1							1	1	100
Sample A3												1	1	100
All results	3,99				1	0	CVE	5,98	2	50%	2,99	8,97	1	
Sample B3												1	1	100
All results	64,8				1	0	CVE	72,8	14	25%	54,6	91	1	
(362) I - urine	[µmol/L]				2							2	1	50
Sample A3												2	2	100
All results	0,508	0,058	11		2	0	CVE	0,542	0,057	25%	0,406	0,678	2	
Sample B3												2	1	50
All results	1,07	0,22	20		2	0	CVE	1,24	0,12	25%	0,93	1,55	2	
(342) Mn - urine	[nmol/L]				2							2	2	100
Sample A3												2	2	100
All results	88,3	2,3	2,6		2	0	CVE	91	11	25%	68,2	114	2	
Sample B3												2	2	100
All results	594	26	4,4		2	0	CVE	584	47	25%	438	730	2	
(358) Ni - urine	[nmol/L]				2							2	1	50
Sample A3												2	1	50
All results	79,9	28	35		2	0	CVE	56,2	6,8	25%	42,1	70,3	2	
Sample B3												2	2	100
All results	315	10	3,2		2	0	CVE	315	31	25%	236	394	2	
(344) Pb - urine	[nmol/L]				2							2	2	100
Sample A3												2	2	100
All results	65,1	4	6,1		2	0	CVE	57,8	5	25%	43,3	72,3	2	
Sample B3												2	2	100
All results	364	8,8	2,4		2	0	CVE	311	30	25%	233	389	2	
(345) Se - urine	[µmol/L]				1							1	1	100
Sample A3												1	1	100
All results	0,142				1	0	CVE	0,158	0,025	25%	0,118	0,198	1	
Sample B3												1	1	100
All results	1,63				1	0	CVE	1,76	0,2	25%	1,32	2,2	1	
(340) Zn - urine	[µmol/L]				3							3	2	67
Sample A3												3	2	67
All results	3,29	0,46	14		3	0	CVE	3,61	0,34	25%	2,7	4,52	3	
Sample B3												3	3	100
All results	6,94	0,33	4,7		3	0	CVE	7,38	0,59	25%	5,53	9,23	3	