

Laboratorio Emotest s.r.l.

# MONTHLY HAEMATOLOGY

CYCLE 16 SAMPLE 4

## Explanation of codes used in this report

R - Results removed due to reconstitution error  
N - No result returned  
C - Result corrected

Authorised by: Stephen Doherty, RIQAS Manager

Issue No: 1

Issue Date: 13/04/2023

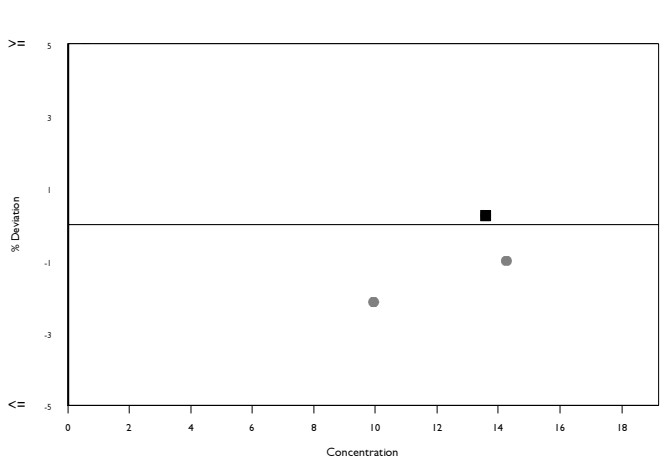
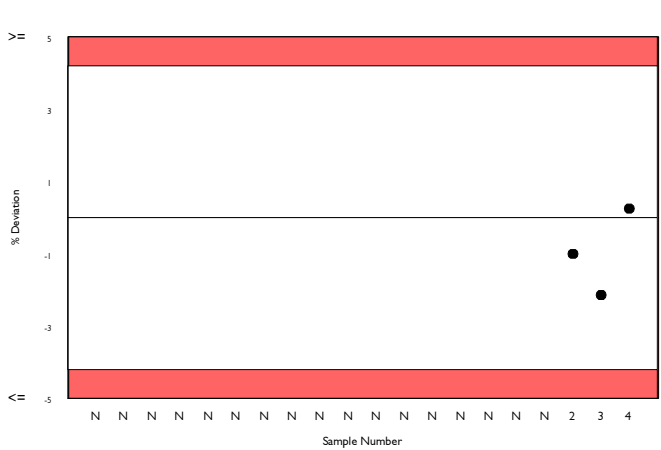
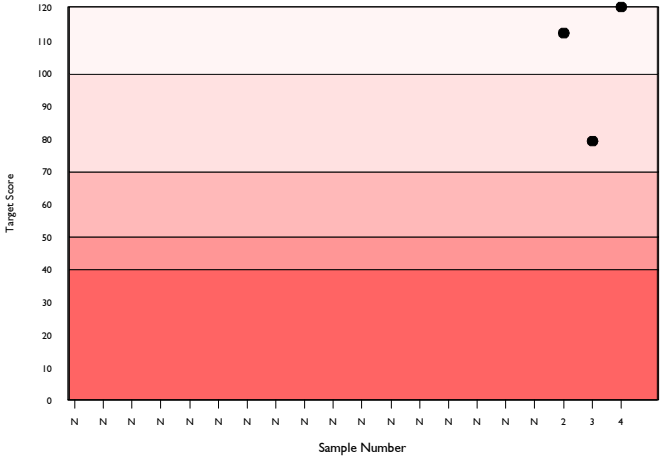
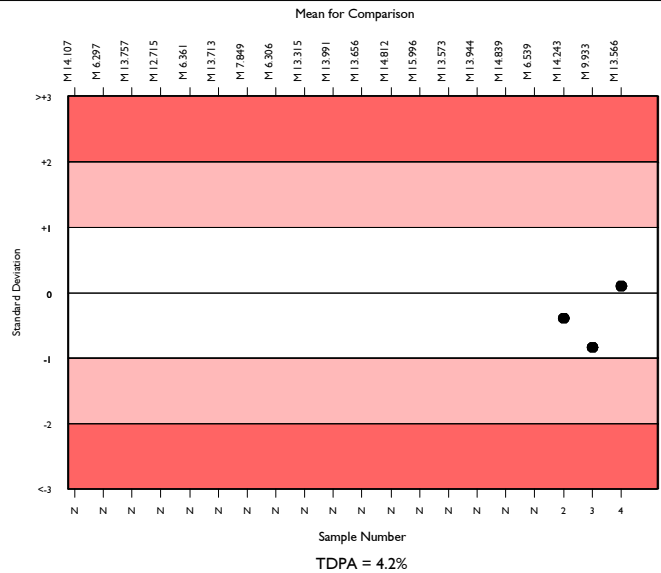
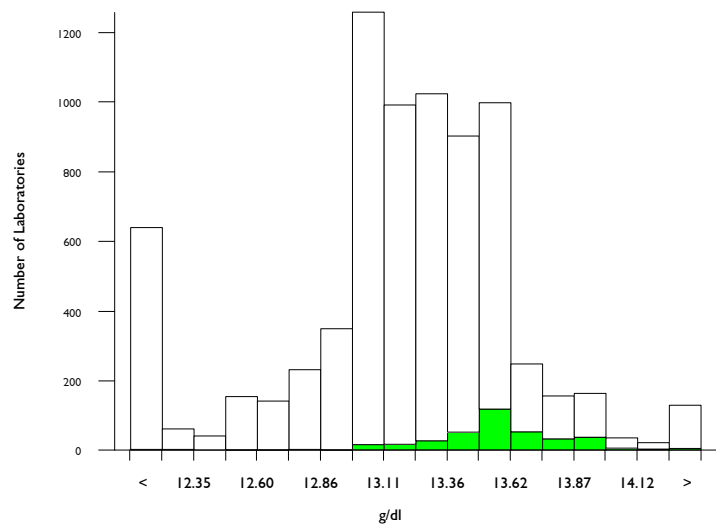
Randox Laboratories Limited  
55 Diamond Road  
CRUMLIN BT29 4QY  
Tel: +44 (0)28 9445 4399  
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# Haemoglobin, g/dl

	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	6871	13.240	2.6	0.01	0.34	672
Abbott Cell-Dyn Ruby	346	13.566	1.6	0.01	0.35	31

▲ Your Result	13.600	SDI	0.10
		RMSDI	Too Few
■ Mean for Comparison	13.566	TS	120
		RMTS	Too Few
		%DEV	0.2
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	4.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1639	13.307	1.1	0.00
Sysmex XN-L Series (330/350/450/550)	616	13.154	0.9	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	352	13.328	1.1	0.01
Abbott Cell-Dyn Ruby	346	13.566	1.6	0.01
Beckman Coulter DxH 600/800/900 Series	333	12.858	1.2	0.01
Calculated from HCT	248	11.673	3.1	0.03
Sysmex XP Series	238	13.041	1.6	0.02
Sysmex XS series	230	13.239	1.2	0.01
Siemens/Bayer Advia 120/2120	238	13.516	1.5	0.02
Mindray BC 1000/2000/3000 series	209	13.314	2.5	0.03
Manual Methods	165	11.862	3.7	0.04
Sysmex XT series	150	13.212	1.1	0.02
Mindray BC 5100/5180/5300/5380/5390	148	13.365	1.9	0.04
Nihon Kohden Celltac Alpha/plus	127	13.579	2.7	0.03
Mindray BC 5000/5150/5140/5130/5120	128	13.213	1.7	0.02
ABX Micros/Minos/ABC VET	108	13.045	2.7	0.04
Beckman Coulter DxH 500 Series	105	12.106	2.1	0.03
Horiba Yumizen H500/ 550	93	12.989	1.4	0.02
Mindray BC 10/20/30	89	13.510	1.8	0.03
Sysmex KX 21	92	13.052	1.7	0.03
Horiba ABX Pentra 60/80/XLR	86	13.228	1.9	0.03

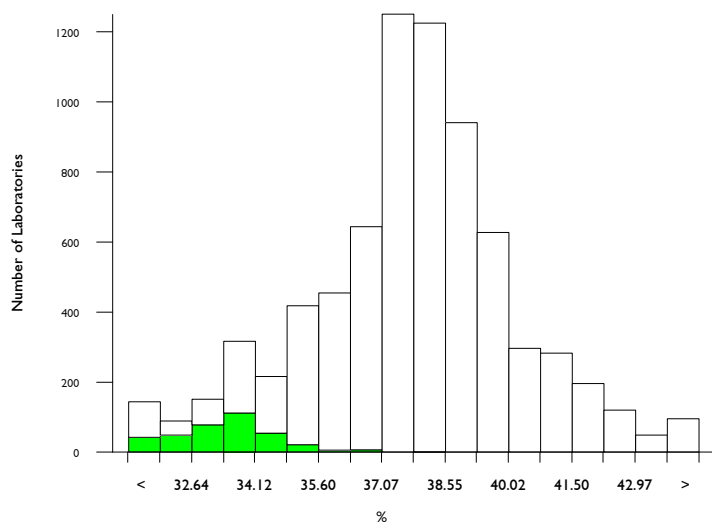


# Haematocrit (HCT), %

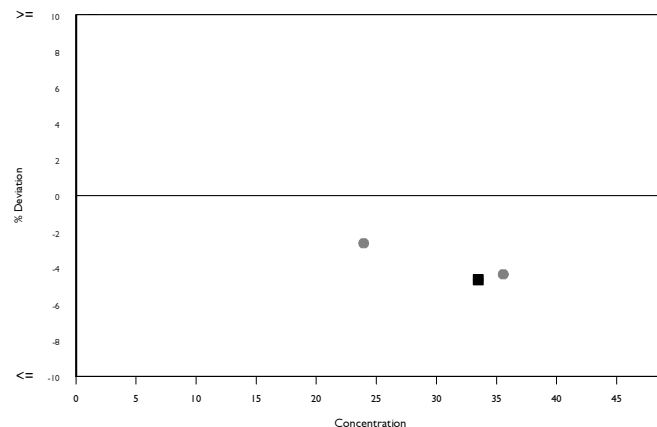
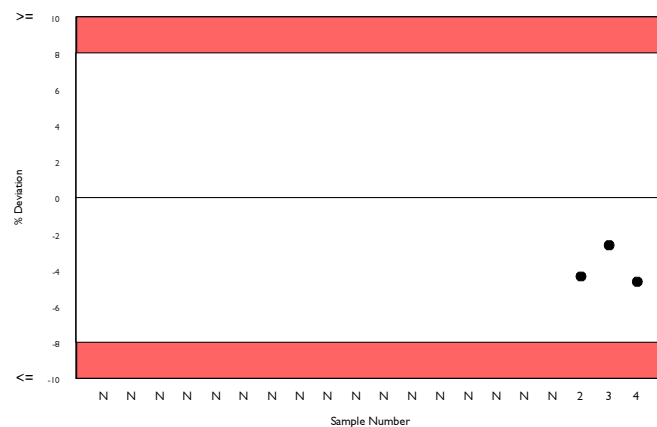
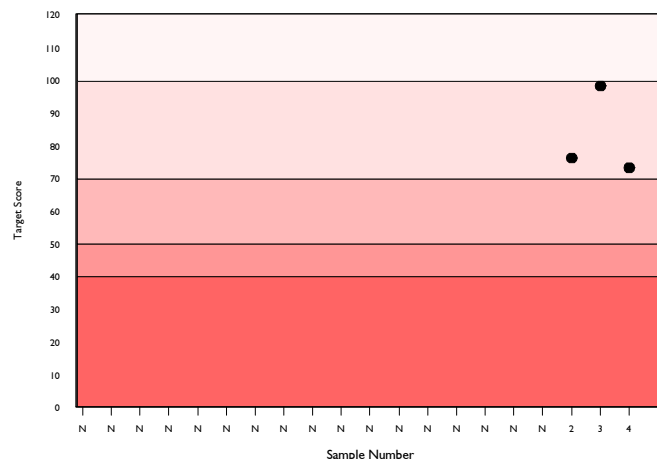
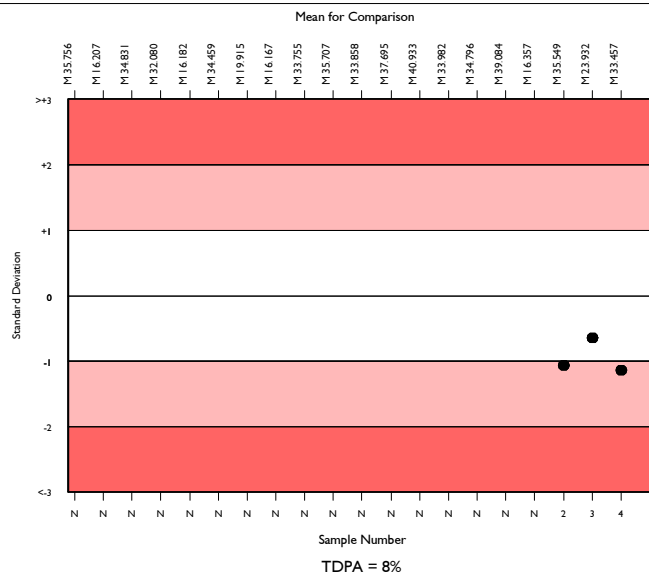
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	6971	37.814	5.2	0.03	1.54	538
Abbott Cell-Dyn Ruby	339	33.457	2.8	0.06	1.37	31

▲ Your Result	31.900	SDI	-1.14
		RMSDI	Too Few
■ Mean for Comparison	33.457	TS	73
		RMTS	Too Few
		%DEV	-4.7
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1651	37.947	1.8	0.02
Sysmex XN-L Series (330/350/450/550)	619	37.752	2.1	0.04
Mindray BC-6000/6200/6600/6800/6800Plus	359	41.752	1.9	0.05
Abbott Cell-Dyn Ruby	339	33.457	2.8	0.06
Beckman Coulter DxH 600/800/900 Series	319	39.010	1.4	0.04
Microhematocrit Centrifugation	279	35.383	3.0	0.08
Sysmex XP Series	230	35.276	2.4	0.07
Sysmex XS series	228	37.808	2.0	0.06
Siemens/Bayer Advia 120/2120	229	34.061	2.7	0.07
Mindray BC 1000/2000/3000 series	214	39.129	3.5	0.12
Manual Methods	173	35.639	2.9	0.10
Sysmex XT series	155	37.955	2.5	0.09
Mindray BC 5100/5180/5300/5380/5390	144	39.902	2.8	0.12
Nihon Kohden Celltac Alpha/plus	125	39.450	3.2	0.14
Mindray BC 5000/5150/5140/5130/5120	129	39.467	2.6	0.11
ABX Micros/Minos/ABC VET	110	37.711	3.2	0.14
Beckman Coulter DxH 500 Series	106	38.515	2.3	0.11
Horiba Yumizen H500/ 550	97	37.535	2.6	0.12
Sysmex KX 21	91	35.531	3.0	0.14
Mindray BC 10/20/30	95	39.084	3.1	0.16
Horiba ABX Pentra 60/80/XLR	83	36.568	2.1	0.10

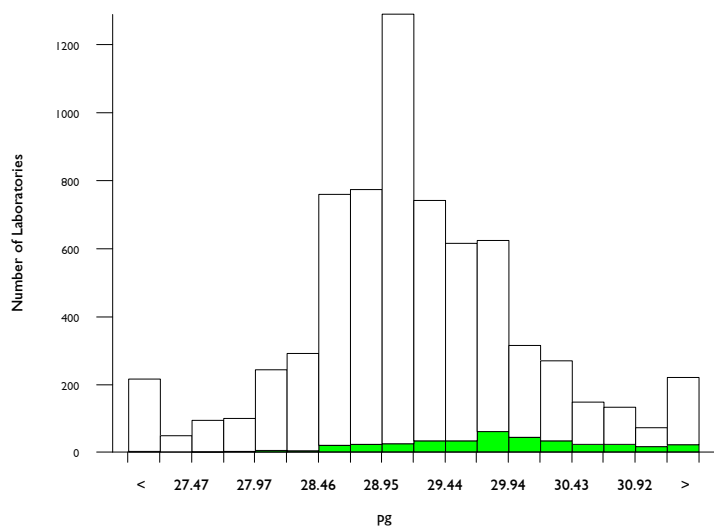


# MCH, pg

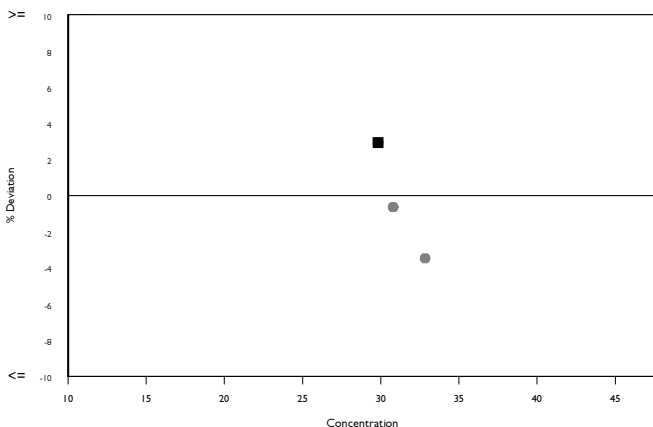
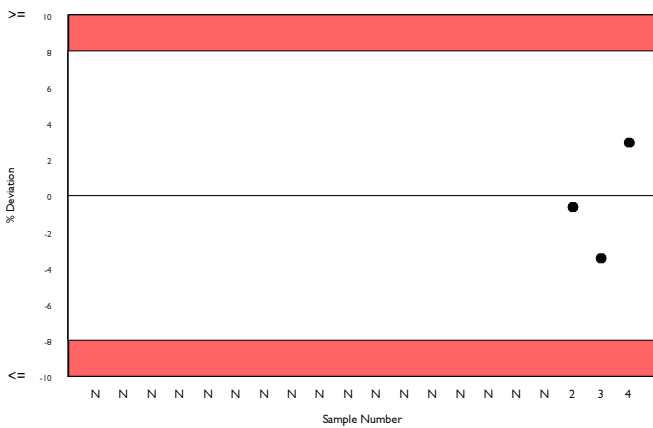
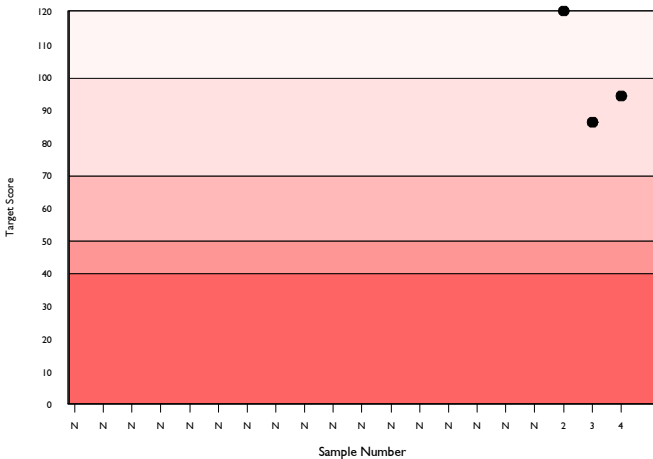
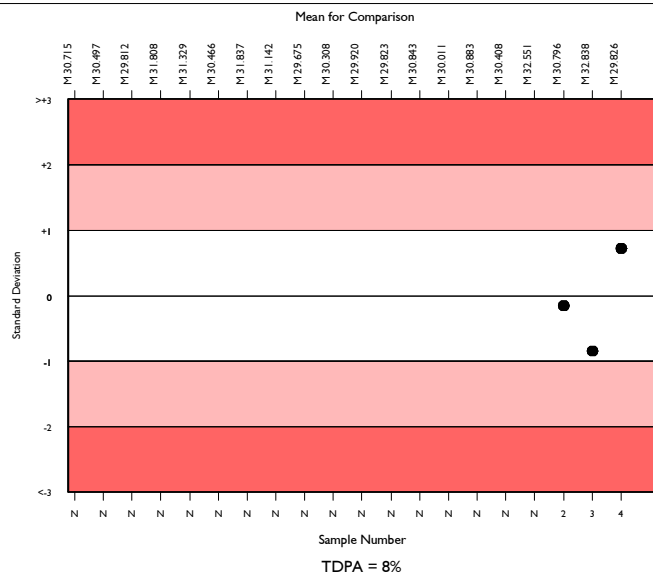
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	6383	29.202	2.3	0.01	1.19	556
Abbott Cell-Dyn Ruby	349	29.826	2.4	0.05	1.22	21

▲ Your Result	30.700	SDI	0.72
		RMSDI	Too Few
■ Mean for Comparison	29.826	TS	94
		RMTS	Too Few
		%DEV	2.9
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1633	29.120	1.3	0.01
Sysmex XN-L Series (330/350/450/550)	616	29.000	1.2	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	358	29.243	1.4	0.03
Abbott Cell-Dyn Ruby	349	29.826	2.4	0.05
Beckman Coulter DxH 600/800/900 Series	326	28.680	1.4	0.03
Sysmex XP Series	234	29.178	2.0	0.05
Sysmex XS series	226	29.251	1.4	0.03
Siemens/Bayer Advia 120/2120	224	29.989	1.8	0.05
Mindray BC 1000/2000/3000 series	208	29.103	3.0	0.08
Sysmex XT series	150	28.963	1.5	0.05
Mindray BC 5100/5180/5300/5380/5390	144	29.648	1.8	0.05
Nihon Kohden Celltac Alpha/plus	127	29.626	2.8	0.09
Mindray BC 5000/5150/5140/5130/5120	123	29.352	2.5	0.08
Beckman Coulter DxH 500 Series	108	26.793	2.5	0.08
ABX Micros/Minos/ABC VET	108	28.960	3.3	0.12
Horiba Yumizen H500/ 550	90	28.392	1.8	0.07
Mindray BC 10/20/30	92	30.462	2.7	0.11
Sysmex KX 21	89	29.285	1.9	0.07
Horiba ABX Pentra 60/80/XLR	80	29.318	1.5	0.06
Abbott Cell-Dyn Emerald 22	70	27.637	2.2	0.09
Abbott Alinity iq	68	29.554	1.7	0.08

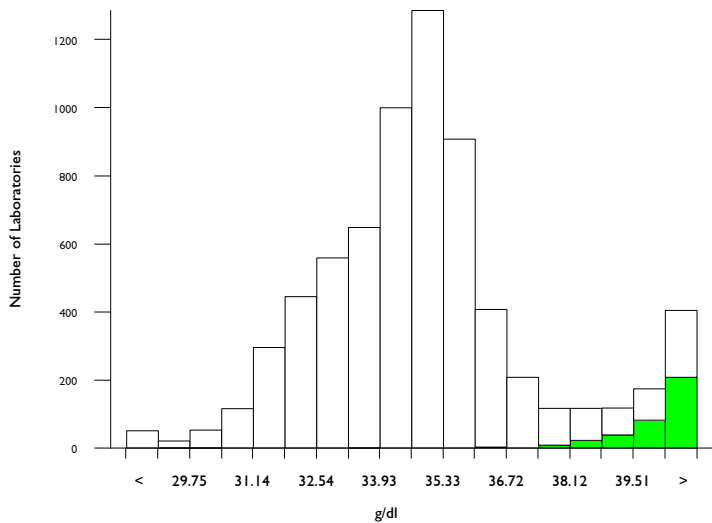


# MCHC, g/dl

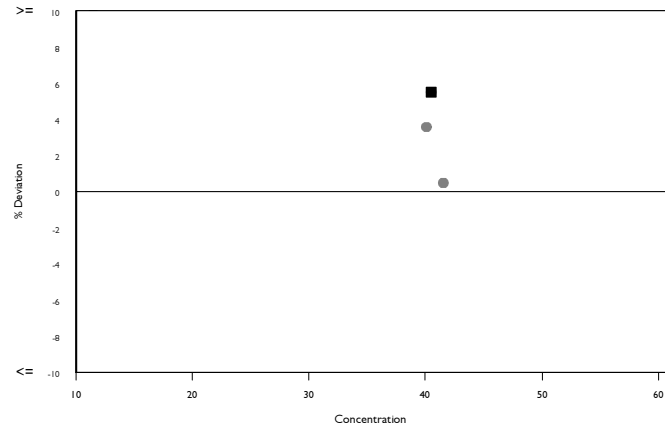
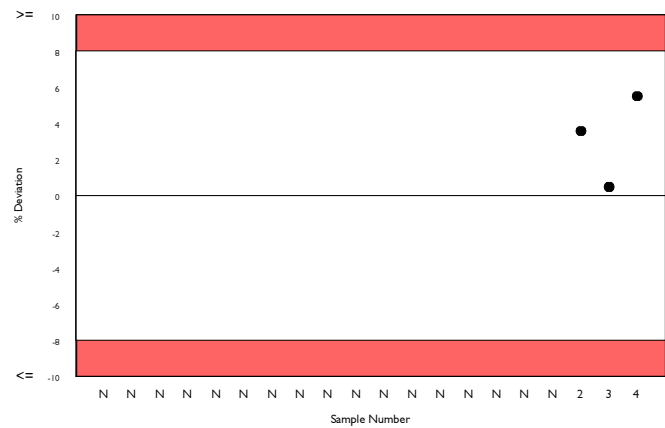
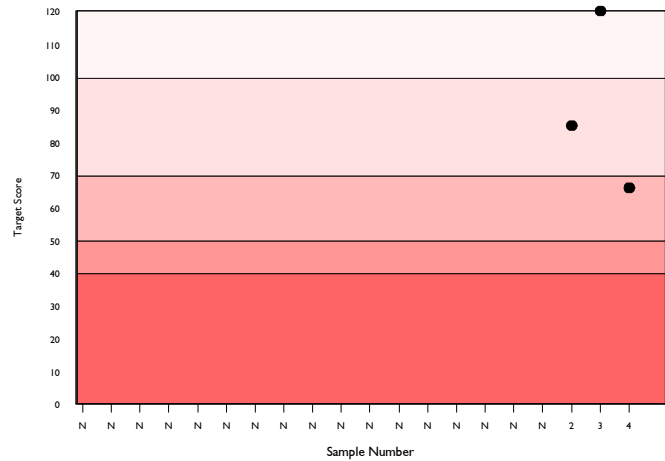
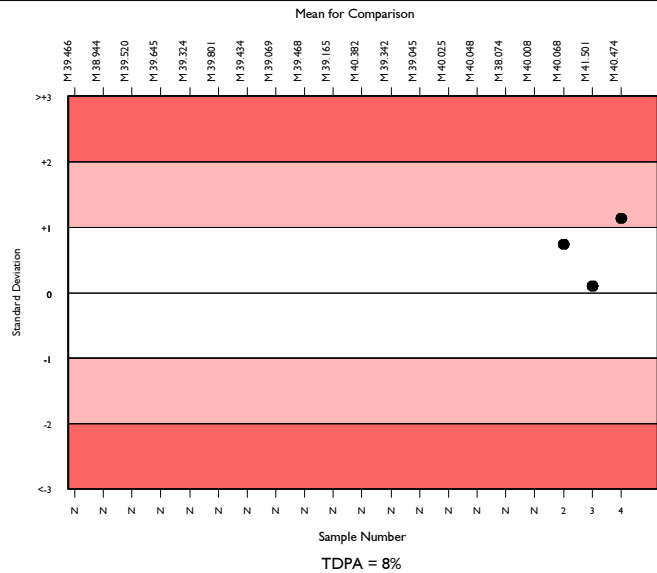
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All Methods	6351	34.635	5.4	0.03	1.68	568
Abbott Cell-Dyn Ruby	339	40.474	2.9	0.08	1.97	28

▲ Your Result	42.700	SDI	1.13
		RMSDI	Too Few
■ Mean for Comparison	40.474	TS	66
		RMTS	Too Few
		%DEV	5.5
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1636	35.095	1.9	0.02
Sysmex XN-L Series (330/350/450/550)	616	34.850	1.8	0.03
Mindray BC-6000/6200/6600/6800/6800Plus	349	31.909	1.6	0.03
Abbott Cell-Dyn Ruby	339	40.474	2.9	0.08
Beckman Coulter DxH 600/800/900 Series	319	32.962	1.6	0.04
Sysmex XP Series	228	36.829	3.0	0.09
Sysmex XS series	226	35.086	1.9	0.06
Siemens/Bayer Advia 120/2120	223	39.678	2.5	0.08
Mindray BC 1000/2000/3000 series	198	33.932	3.4	0.10
Sysmex XT series	150	34.858	2.3	0.08
Mindray BC 5100/5180/5300/5380/5390	144	33.482	3.1	0.11
Mindray BC 5000/5150/5140/5130/5120	126	33.428	2.6	0.10
Nihon Kohden Celltac Alpha/plus	119	34.311	3.7	0.15
Beckman Coulter DxH 500 Series	111	31.526	2.6	0.10
ABX Micros/Minos/ABC VET	102	34.705	3.6	0.15
Horiba Yumizen H500/ 550	90	34.509	2.7	0.12
Mindray BC 10/20/30	94	34.541	3.5	0.15
Sysmex KX 21	87	36.964	2.9	0.14
Horiba ABX Pentra 60/80/XLR	76	36.333	1.9	0.10
Abbott Cell-Dyn Emerald 22	69	32.922	2.0	0.10
Erba Lachema Elite series	64	33.401	3.9	0.20

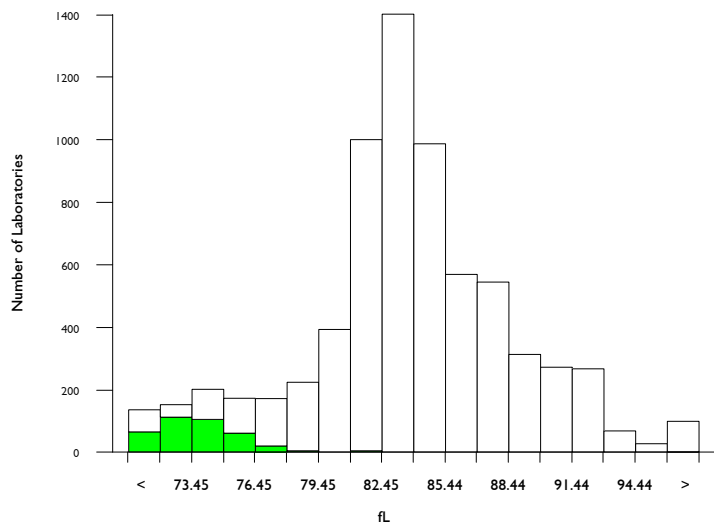


# MCV, fL

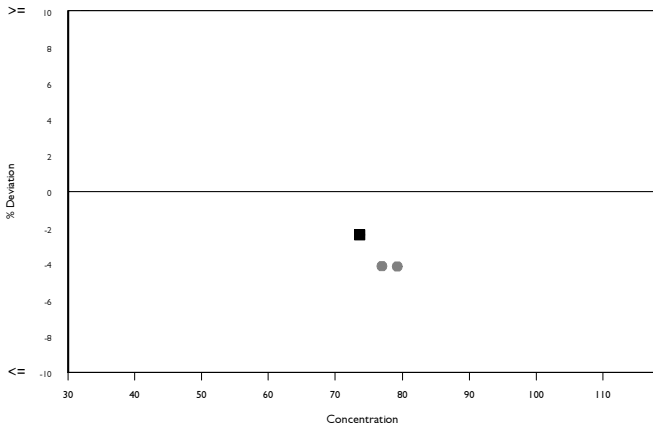
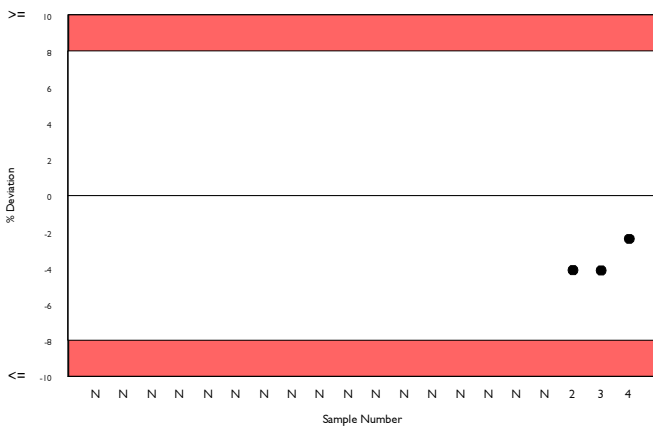
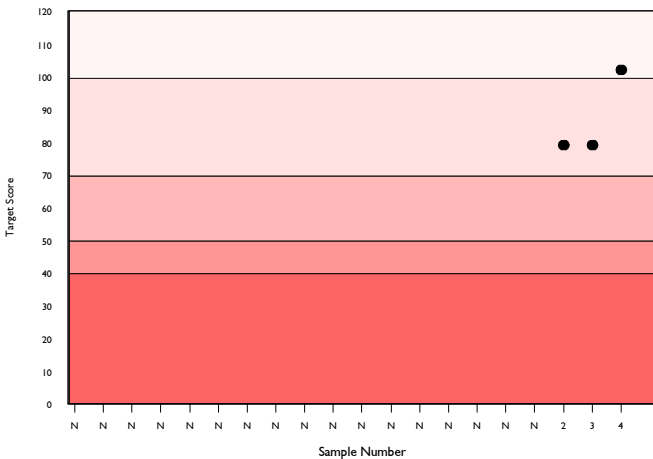
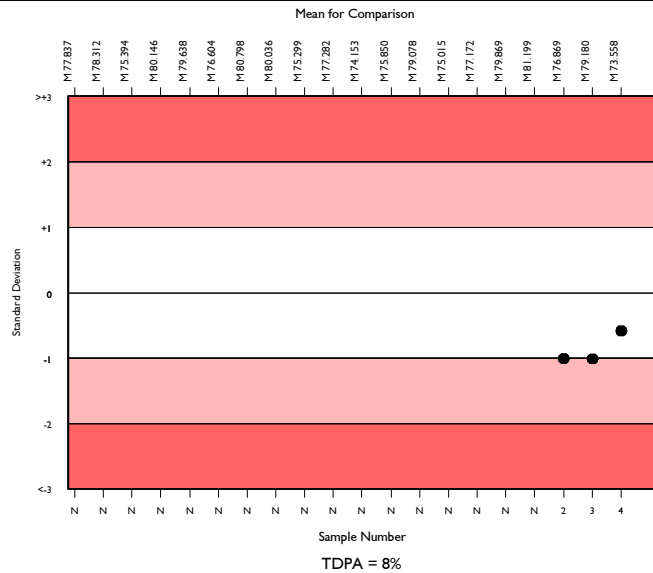
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
<input type="checkbox"/> All Methods	6493	83.950	4.8	0.06	3.43	499
<input checked="" type="checkbox"/> Abbott Cell-Dyn Ruby	340	73.558	2.0	0.10	3.00	32

<input checked="" type="checkbox"/> Your Result	71.800	SDI	-0.59
		RMSDI	Too Few
<input checked="" type="checkbox"/> Mean for Comparison	73.558	TS	102
		RMTS	Too Few
		%DEV	-2.4
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1632	82.977	1.5	0.04
Sysmex XN-L Series (330/350/450/550)	617	83.238	1.5	0.06
Mindray BC-6000/6200/6600/6800/6800Plus	350	91.620	1.1	0.07
Abbott Cell-Dyn Ruby	340	73.558	2.0	0.10
Beckman Coulter DxH 600/800/900 Series	317	87.039	1.0	0.06
Sysmex XP Series	235	79.201	2.1	0.13
Sysmex XS series	229	83.226	1.9	0.13
Siemens/Bayer Advia 120/2120	229	75.544	2.0	0.13
Mindray BC 1000/2000/3000 series	215	85.935	2.9	0.21
Sysmex XT series	145	83.293	1.6	0.14
Mindray BC 5100/5180/5300/5380/5390	151	88.303	2.8	0.25
Nihon Kohden Celltac Alpha/plus	124	86.508	2.9	0.28
Mindray BC 5000/5150/5140/5130/5120	122	87.725	1.8	0.18
Beckman Coulter DxH 500 Series	110	84.984	1.4	0.14
ABX Micros/Minos/ABC VET	104	83.129	2.7	0.27
Horiba Yumizen H500/ 550	93	82.153	1.6	0.17
Mindray BC 10/20/30	91	87.489	1.9	0.22
Sysmex KX 21	85	79.309	2.2	0.24
Horiba ABX Pentra 60/80/XLR	81	80.708	1.7	0.19
Abbott Cell-Dyn Emerald 22	70	83.899	1.7	0.21
Erba Lachema Elite series	66	87.900	2.8	0.38

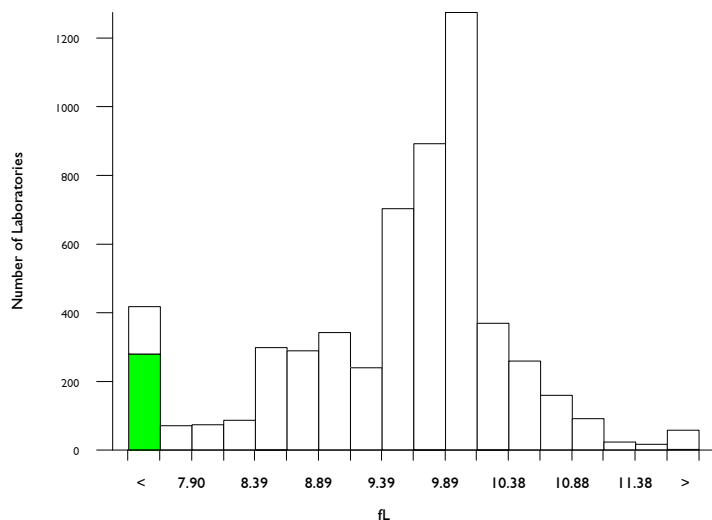


# Mean Platelet Volume, fL

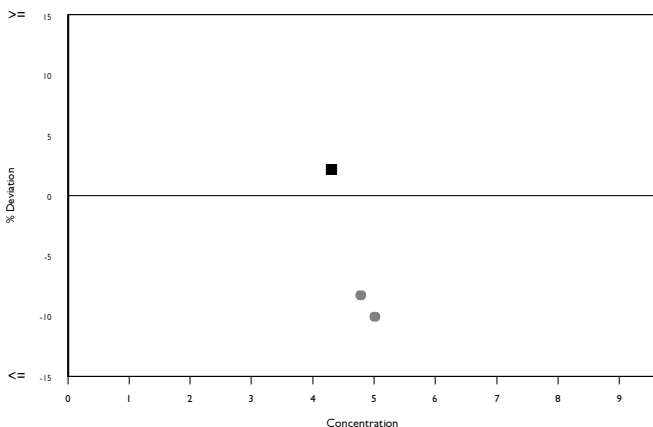
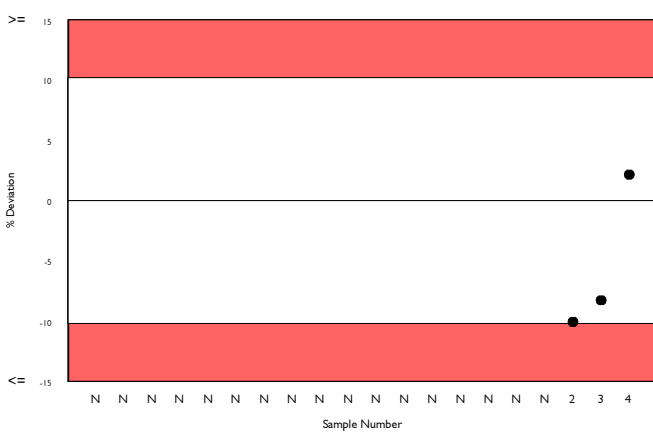
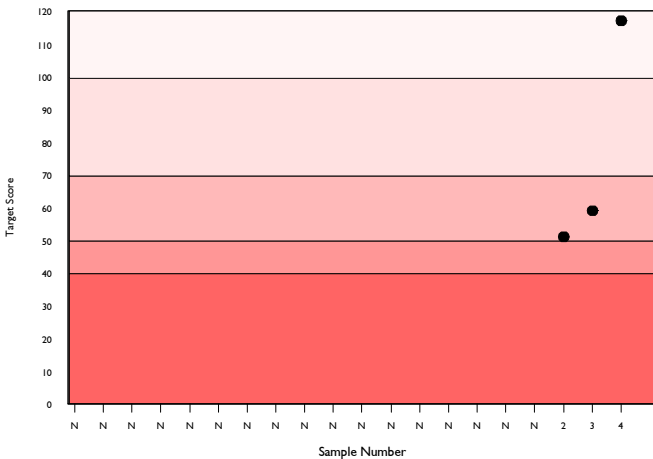
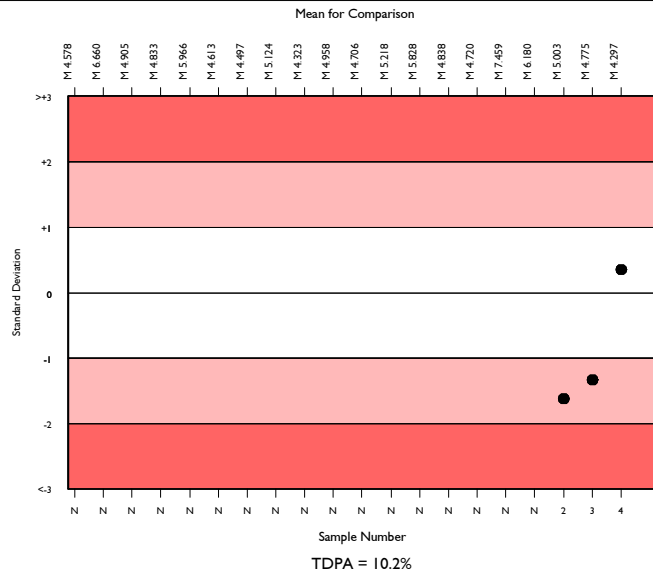
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	5158	9.643	6.9	0.01	0.60	504
Abbott Cell-Dyn Ruby	259	4.297	5.7	0.02	0.27	26

▲ Your Result	4.390	SDI	0.35
		RMSDI	Too Few
■ Mean for Comparison	4.297	TS	117
		RMTS	Too Few
		%DEV	2.2
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	10.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1380	9.874	1.9	0.01
Sysmex XN-L Series (330/350/450/550)	419	9.886	2.0	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	325	10.495	3.4	0.02
Beckman Coulter DxH 600/800/900 Series	260	8.660	2.3	0.02
Abbott Cell-Dyn Ruby	259	4.297	5.7	0.02
Sysmex XP Series	187	9.527	1.9	0.02
Sysmex XS series	185	10.008	2.7	0.03
Mindray BC 1000/2000/3000 series	183	9.097	5.2	0.04
Siemens/Bayer Advia 120/2120	168	10.349	5.6	0.06
Sysmex XT series	127	9.749	2.2	0.02
Mindray BC 5000/5150/5140/5130/5120	111	10.140	2.3	0.03
Mindray BC 5100/5180/5300/5380	95	9.030	2.8	0.03
Nihon Kohden Celltac Alpha/plus	102	8.678	7.0	0.08
Beckman Coulter DxH 500 Series	96	8.917	3.2	0.04
Mindray BC 10/20/30	78	9.756	2.3	0.03
Horiba Yumizen H500/ 550	86	10.344	4.3	0.06
Sysmex KX 21	75	9.445	3.7	0.05
ABX Micros/Minos/ABC VET	72	8.575	5.9	0.07
Horiba ABX Pentra 60/80/XLR	69	9.683	3.4	0.05
Abbott Cell-Dyn Emerald 22	50	9.818	2.5	0.04
Erba Lachema Elite series	52	9.494	3.8	0.06

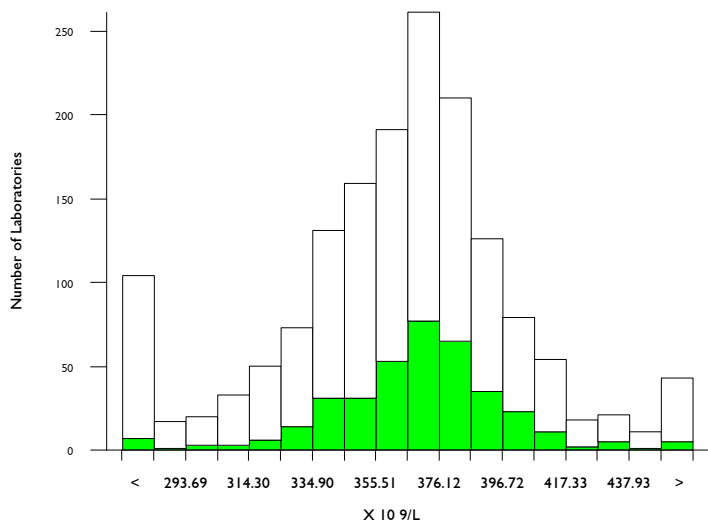


# Platelets (Optical Count), X 10<sup>9</sup>/L

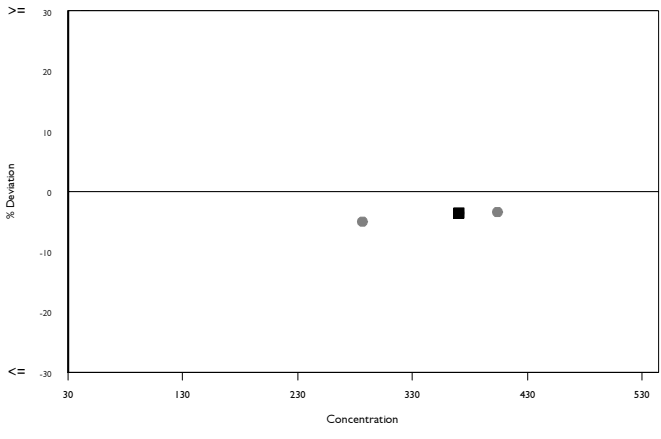
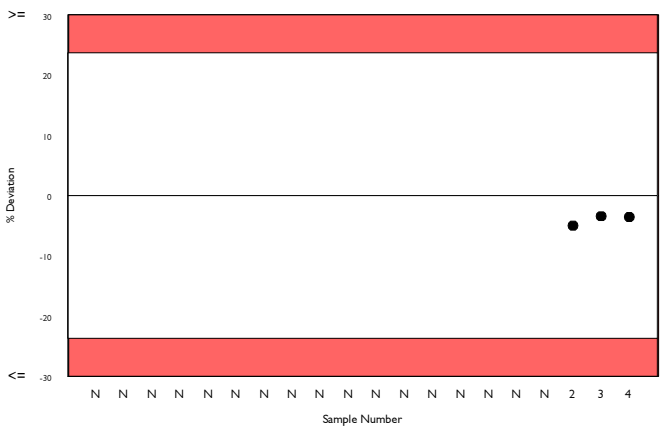
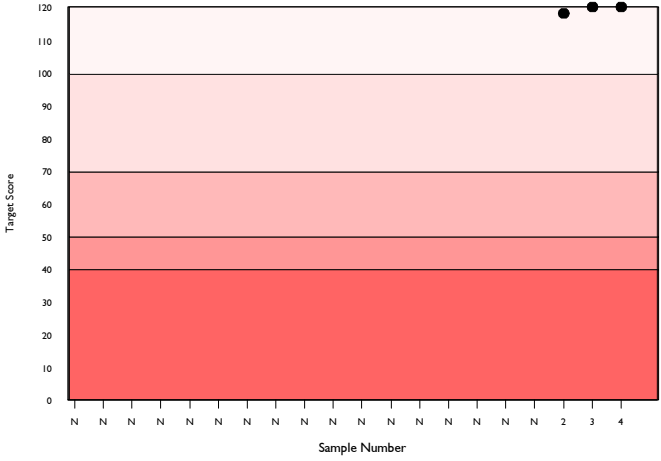
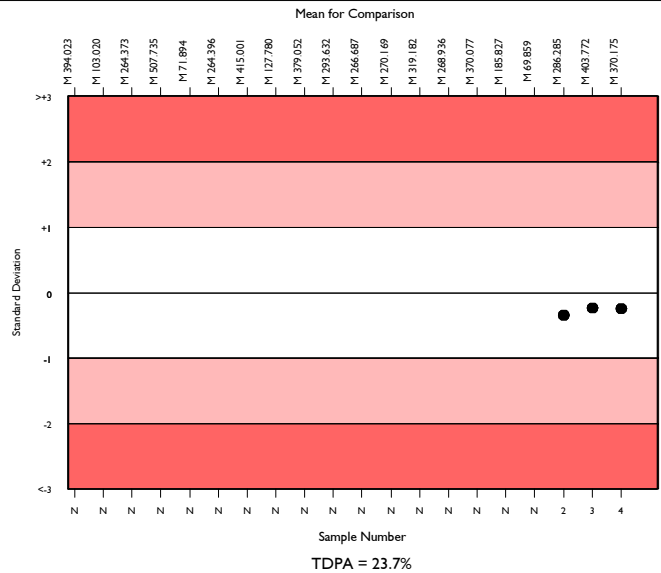
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1436	365.817	7.5	0.91	52.71	166
Abbott Cell-Dyn Ruby	344	370.175	5.5	1.38	53.34	29

▲ Your Result	357.000	SDI	-0.25
		RMSDI	Too Few
■ Mean for Comparison	370.175	TS	120
		RMTS	Too Few
		%DEV	-3.6
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	23.70%



Method	N	Mean	CV%	U <sub>m</sub>
Manual Methods	347	343.986	9.9	2.28
Abbott Cell-Dyn Ruby	344	370.175	5.5	1.38
Siemens/Bayer Advia 120/2120	230	355.101	6.1	1.80
Sysmex XN Series PLT-O	131	400.504	9.1	3.96
Abbott Alinity hq	70	379.529	3.8	2.14
Mindray BC-6000/6200/6600/6800/6800Plus	57	373.053	6.2	3.81
Sysmex XN-L Series (330/350/450/550)	54	379.037	4.3	2.79
Sysmex XS Series	40	369.788	3.4	2.51
Sysmex XT Series	28	370.309	3.3	2.85
Abbott Cell-Dyn 3200	23	334.761	12.9	11.28
Beckman Coulter DxH 600/800/900 Series	19	377.300	3.5	3.75
Abbott Cell-Dyn Sapphire	12	385.417	4.1	5.76
Sysmex KX21	11	394.455	5.1	7.55
Horiba Yumizen H500/ 550	11	385.636	5.7	8.26
Sysmex XN Series PLT-F	9	382.111	4.5	7.19
Beckman Coulter DxH 500 Series	6	405.600	6.3	13.05
UDIHEM-D	7	376.143	9.3	16.45
ABX Micros/Minos/ABC VET	6	373.333	9.3	17.70
Horiba ABX Pentra 60/80/XLR	7	380.571	6.3	11.38
Mindray BC760/780	5	379.600	2.4	5.04
Horiba Yumizen H1500/ 2500	5	395.000	4.5	9.91



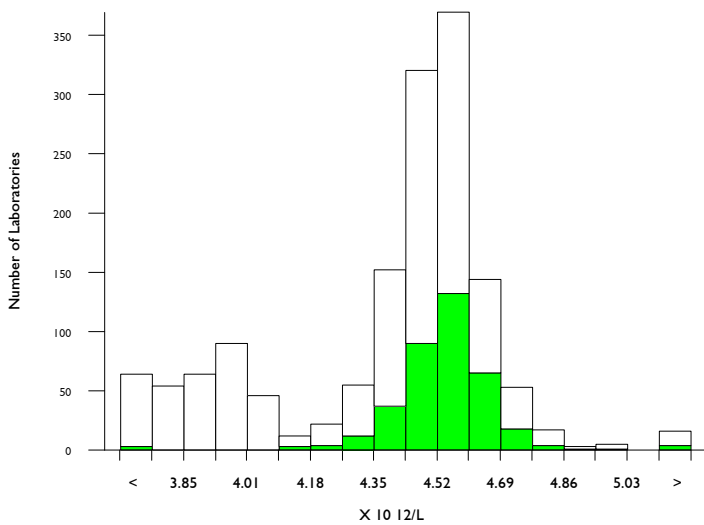


# RBC (Optical Count), X 10<sup>12</sup>/L

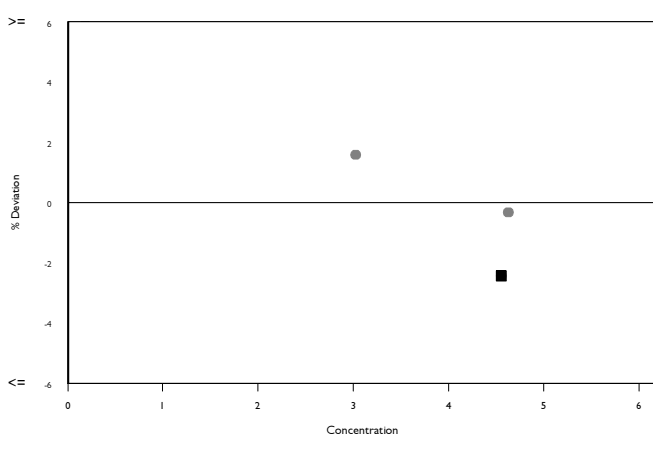
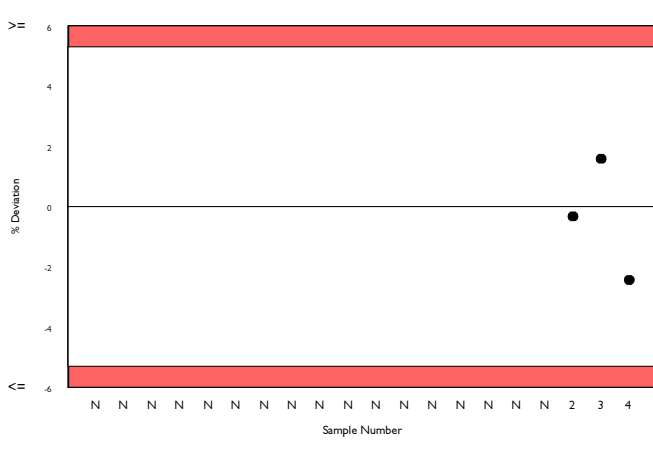
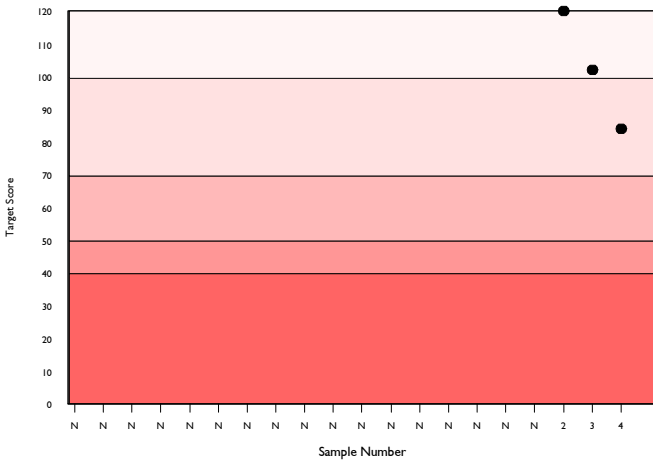
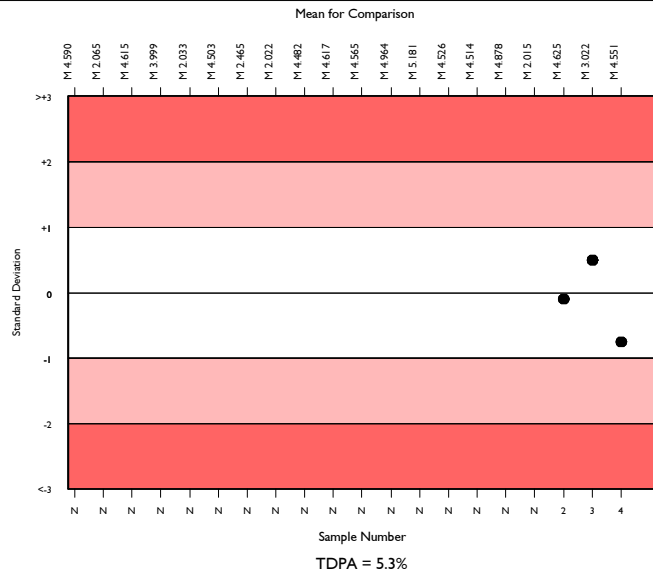
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1347	4.443	5.1	0.01	0.14	140
Abbott Cell-Dyn Ruby	339	4.551	1.8	0.01	0.15	35

▲ Your Result	4.440	SDI	-0.76
		RMSDI	Too Few
■ Mean for Comparison	4.551	TS	84
		RMTS	Too Few
		%DEV	-2.4
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	5.30%



Method	N	Mean	CV%	U <sub>m</sub>
Abbott Cell-Dyn Ruby	339	4.551	1.8	0.01
Manual Methods	300	3.939	3.3	0.01
Siemens/Bayer Advia 120/2120	227	4.508	1.8	0.01
Sysmex XN Series	164	4.541	2.0	0.01
Abbott Alinity iq	71	4.522	1.6	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	46	4.542	1.9	0.02
Sysmex XS Series	41	4.514	1.8	0.02
Sysmex XT Series	33	4.511	3.0	0.03
Abbott Cell-Dyn 3200	23	4.487	2.2	0.03
Beckman Coulter DxH 600/800/900 Series	18	4.478	1.1	0.01
Sysmex KX21	12	4.443	1.0	0.02
Horiba Yumizen H500/ 550	10	4.565	2.1	0.04
Abbott Cell-Dyn Sapphire	8	4.676	2.2	0.05
Horiba ABX Pentra 60/80/XLR	8	4.503	2.3	0.05
Beckman Coulter DxH 500 Series	6	4.513	2.0	0.05
UDIHEM-D	7	4.717	3.0	0.07
ABX Micros/Minos/ABC VET	5	4.620	4.2	0.11
Avantor Benesphera H-51	3	4.503	1.0	0.03
ABX Pentra 120/Nexus Series	3	4.587	2.6	0.09
B&E Scientific Hemax 530	2	4.420	2.2	0.09
Horiba Yumizen H1500/ 2500	2	4.580	0.6	0.02

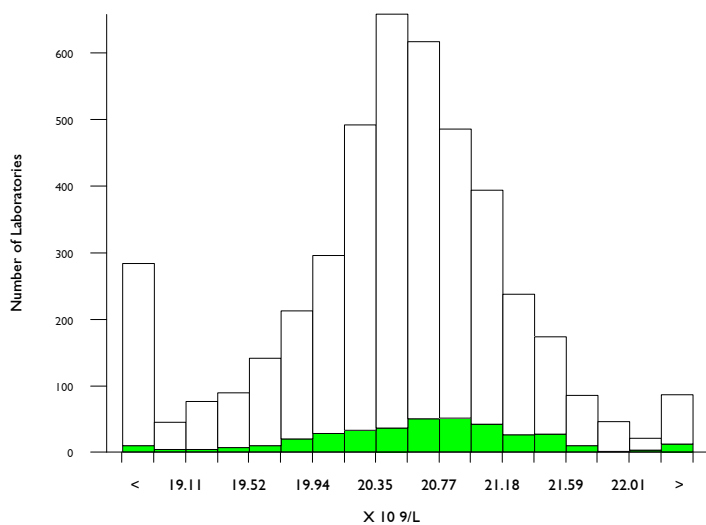


# WBC (Optical Count), X 10<sup>9</sup>/L

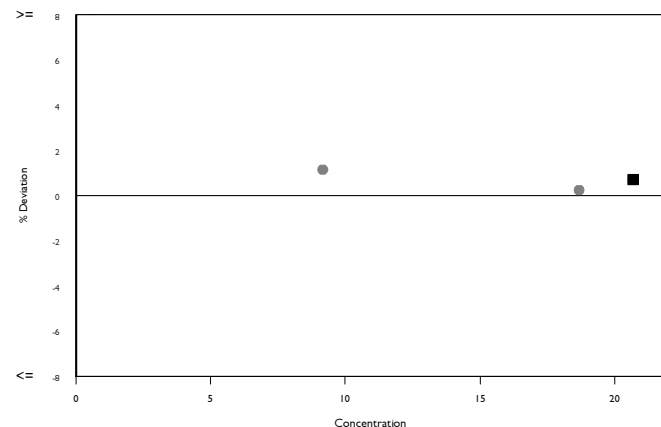
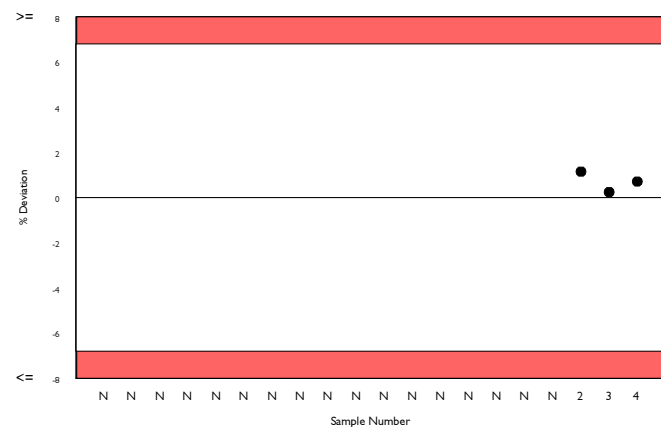
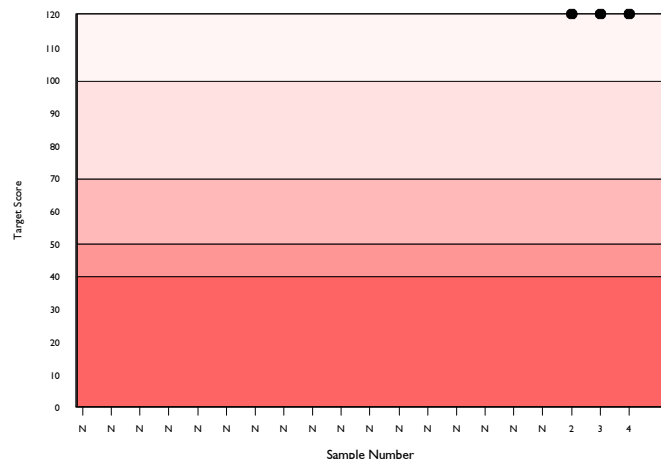
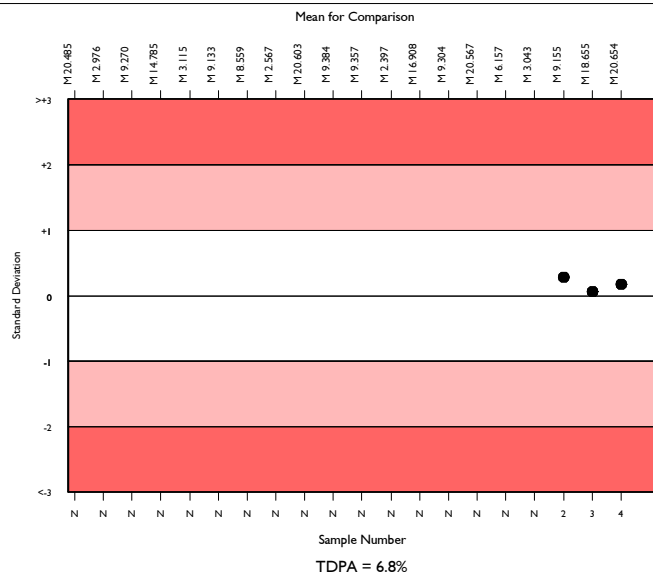
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	3990	20.564	2.7	0.01	0.85	445
Abbott Cell-Dyn Ruby	340	20.654	2.6	0.04	0.85	34

▲ Your Result	20.800	SDI	0.17
		RMSDI	Too Few
■ Mean for Comparison	20.654	TS	120
		RMTS	Too Few
		%DEV	0.7
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	6.80%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1522	20.591	1.6	0.01
Manual methods	392	19.895	6.0	0.08
Sysmex XN-L Series (330/350/450/550)	381	21.011	1.9	0.03
Abbott Cell-Dyn Ruby	340	20.654	2.6	0.04
Mindray BC-6000/6200/6600/6800/6800Plus	336	20.287	1.8	0.02
Siemens/Bayer Advia 120/2120	227	19.953	3.6	0.06
Sysmex XS Series	228	20.967	2.4	0.04
Sysmex XT Series	141	20.948	2.5	0.06
Mindray BC 5000/5150/5140/5130/5120	113	20.360	2.2	0.05
Abbott Alinity hq	68	20.368	2.4	0.07
Mindray BC 5600/5800	49	20.891	3.5	0.13
Beckman Coulter DxH 600/800/900 Series	29	20.332	1.1	0.05
Abbott Cell-Dyn 3200	23	20.539	3.6	0.19
Sysmex KX21	17	20.068	3.7	0.23
Horiba Yumizen H500/ 550	16	19.205	1.8	0.11
Mindray BC760/780	11	21.255	2.1	0.17
Beckman Coulter DxH 500 Series	12	20.628	2.9	0.22
Abbott Cell-Dyn Sapphire	11	20.836	1.3	0.10
Horiba ABX Pentra 60/80/XLR	11	20.573	2.1	0.17
Shenzhen Dymind DF50	10	21.273	2.2	0.19
Mindray BC 5200/5500	7	21.080	1.8	0.18



Analyte	Mean for Comparison	Your Result	SDI	RMSDI	%DEV	RM%DEV	TS	RMTS	Performance
Haemoglobin	13.566	13.600	0.10	Too Few	0.2	Too Few	120	Too Few	
Haematocrit (HCT)	33.457	31.900	-1.14	Too Few	-4.7	Too Few	73	Too Few	
MCH	29.826	30.700	0.72	Too Few	2.9	Too Few	94	Too Few	
MCHC	40.474	42.700	1.13	Too Few	5.5	Too Few	66	Too Few	
MCV	73.558	71.800	-0.59	Too Few	-2.4	Too Few	102	Too Few	
Mean Platelet Volume	4.297	4.390	0.35	Too Few	2.2	Too Few	117	Too Few	
Platelets (Optical Count)	370.175	357.000	-0.25	Too Few	-3.6	Too Few	120	Too Few	
RBC (Optical Count)	4.551	4.440	-0.76	Too Few	-2.4	Too Few	84	Too Few	
WBC (Optical Count)	20.654	20.800	0.17	Too Few	0.7	Too Few	120	Too Few	

ORMSDI N/A

ORM%DEV N/A

ORMTS N/A

END OF REPORT