

Laboratorio Emotest s.r.l.

# MONTHLY HAEMATOLOGY

CYCLE 16 SAMPLE 5

## 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: 11/05/2023

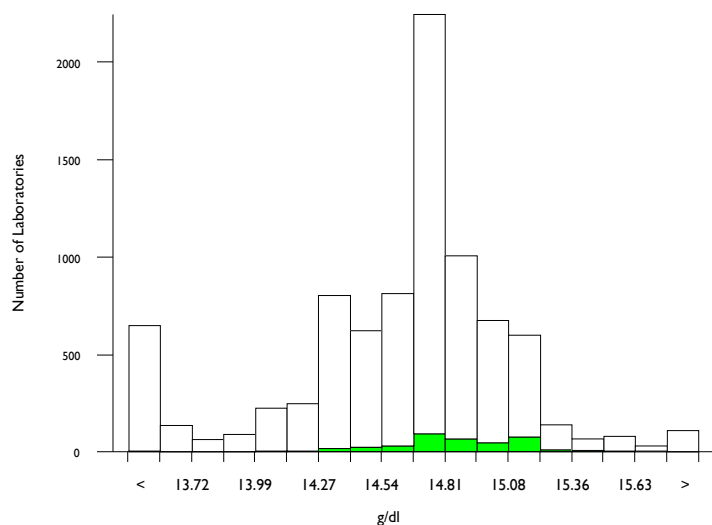
Randox Laboratories Limited  
55 Diamond Road  
CRUMLIN BT29 4QY  
Tel: +44 (0)28 9445 4399  
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# Haemoglobin, g/dl

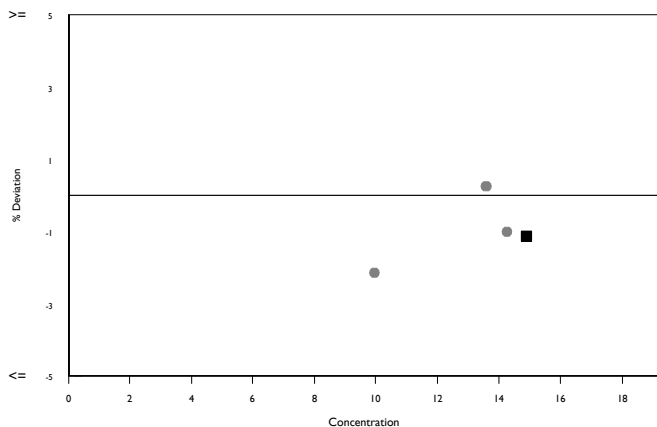
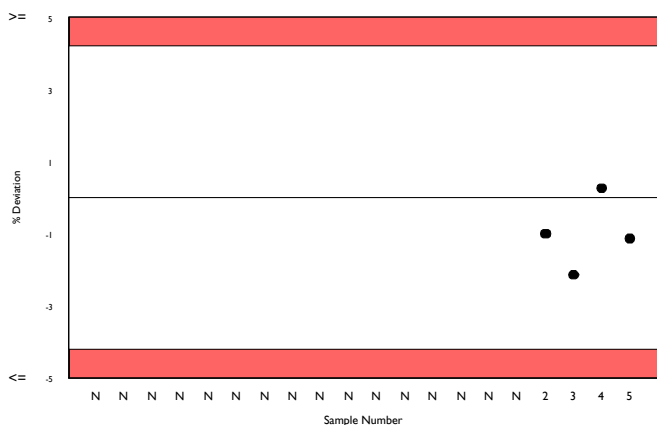
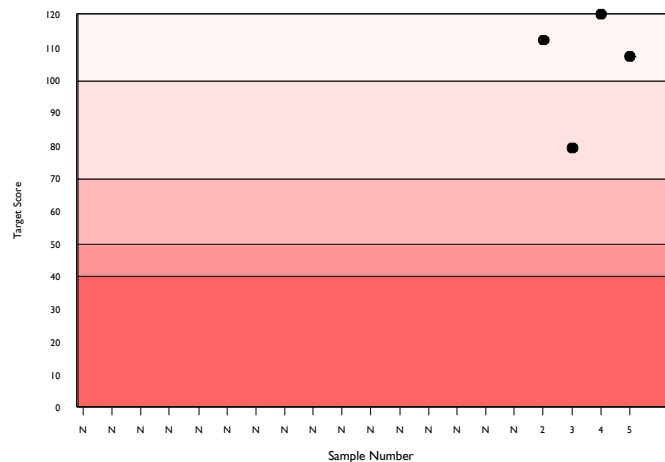
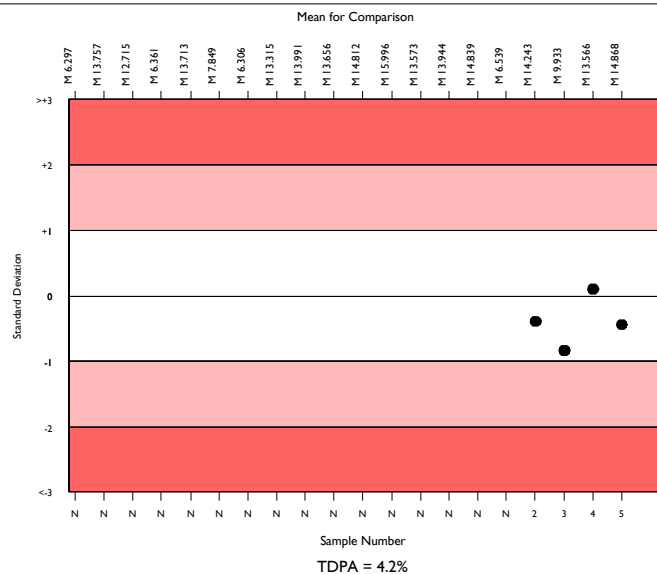
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7886	14.680	2.5	0.01	0.37	694
Abbott Cell-Dyn Ruby	376	14.868	1.6	0.02	0.38	27

▲ Your Result	14.700	SDI	-0.44
		RMSDI	Too Few
■ Mean for Comparison	14.868	TS	107
		RMTS	Too Few
		%DEV	-1.1
		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	1777	14.845	1.1	0.00
Sysmex XN-L Series (330/350/450/550)	649	14.688	1.6	0.01
Abbott Cell-Dyn Ruby	376	14.868	1.6	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	375	14.863	1.1	0.01
Beckman Coulter DxH 600/800/900 Series	370	14.361	1.0	0.01
Sysmex XP Series	325	14.456	1.7	0.02
Mindray BC 1000/2000/3000 series	300	14.596	3.0	0.03
Nihon Kohden Celltac Alpha/plus	284	14.911	2.6	0.03
Sysmex XS series	274	14.775	1.3	0.01
Siemens/Bayer Advia 120/2120	263	14.752	1.3	0.02
Calculated from HCT	241	13.307	2.8	0.03
Sysmex XT series	162	14.725	1.2	0.02
Manual Methods	150	13.371	2.4	0.03
Mindray BC 5100/5180/5300/5380/5390	154	14.610	1.9	0.03
Mindray BC 5000/5150/5140/5130/5120	134	14.692	1.6	0.03
ABX Micros/Minos/ABC VET	140	14.465	3.0	0.05
Beckman Coulter DxH 500 Series	109	13.161	2.7	0.04
Sysmex KX 21	115	14.512	1.9	0.03
Mindray BC 10/20/30	107	14.797	2.0	0.04
Horiba ABX Pentra 60/80/XLR	100	14.661	1.4	0.03
Horiba Yumizen H500/ 550	101	14.471	1.4	0.02

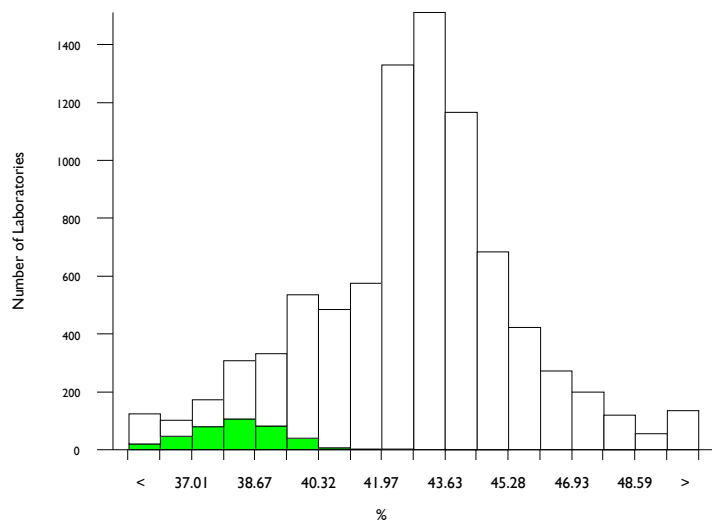


# Haematocrit (HCT), %

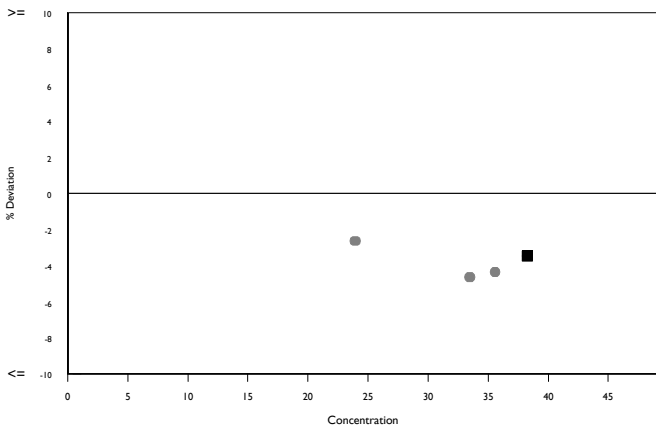
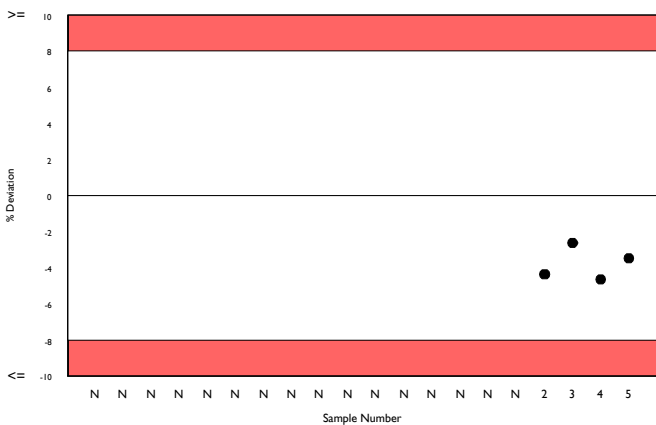
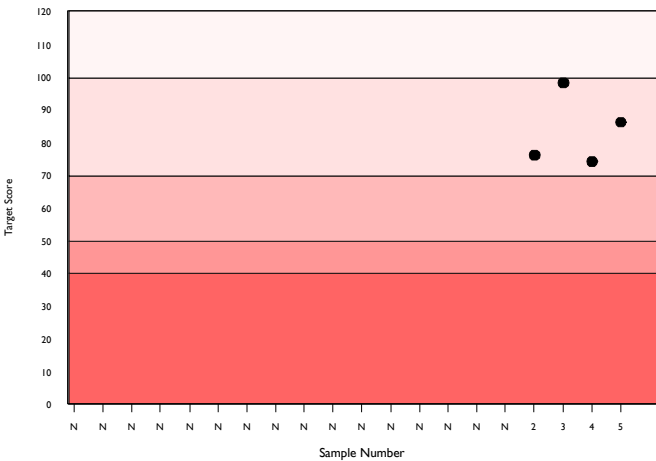
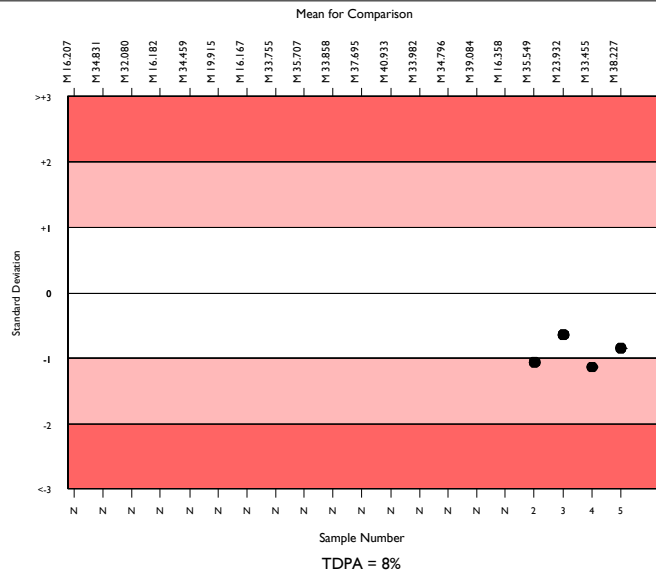
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All Methods	7968	42.805	5.2	0.03	1.75	571
Abbott Cell-Dyn Ruby	366	38.227	2.7	0.07	1.56	28

▲ Your Result	36.900	SDI	-0.85
		RMSDI	Too Few
■ Mean for Comparison	38.227	TS	86
		RMTS	Too Few
		%DEV	-3.5
		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	1753	43.216	1.9	0.02
Sysmex XN-L Series (330/350/450/550)	647	43.016	2.2	0.05
Mindray BC-6000/6200/6600/6800/6800Plus	373	47.023	2.0	0.06
Abbott Cell-Dyn Ruby	366	38.227	2.7	0.07
Beckman Coulter DxH 600/800/900 Series	362	43.712	1.4	0.04
Sysmex XP Series	328	40.008	2.6	0.07
Mindray BC 1000/2000/3000 series	295	43.988	3.7	0.12
Nihon Kohden Celltac Alpha/plus	278	44.084	3.3	0.11
Microhematocrit Centrifugation	273	40.195	2.7	0.08
Sysmex XS series	265	42.962	2.4	0.08
Siemens/Bayer Advia 120/2120	265	38.380	2.5	0.07
Sysmex XT series	163	42.911	1.9	0.08
Manual Methods	153	40.396	2.1	0.09
Mindray BC 5100/5180/5300/5380/5390	152	45.082	2.8	0.13
Mindray BC 5000/5150/5140/5130/5120	137	44.669	2.8	0.13
ABX Micros/Minos/ABC VET	135	42.244	3.8	0.17
Sysmex KX 21	113	40.313	3.2	0.15
Beckman Coulter DxH 500 Series	111	42.967	2.9	0.15
Mindray BC 10/20/30	106	44.070	2.6	0.14
Horiba ABX Pentra 60/80/XLR	101	40.418	2.2	0.11
Horiba Yumizen H500/ 550	105	41.997	2.5	0.13

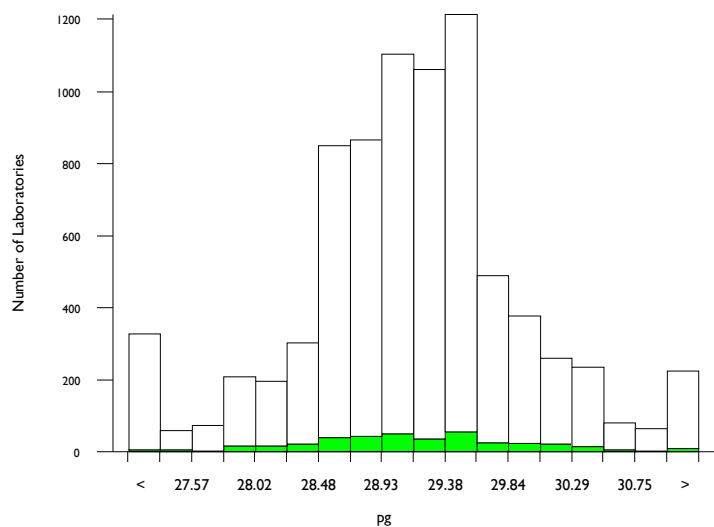


# MCH, pg

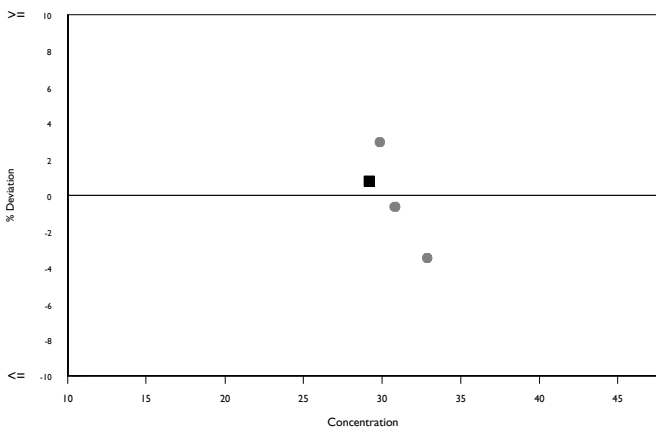
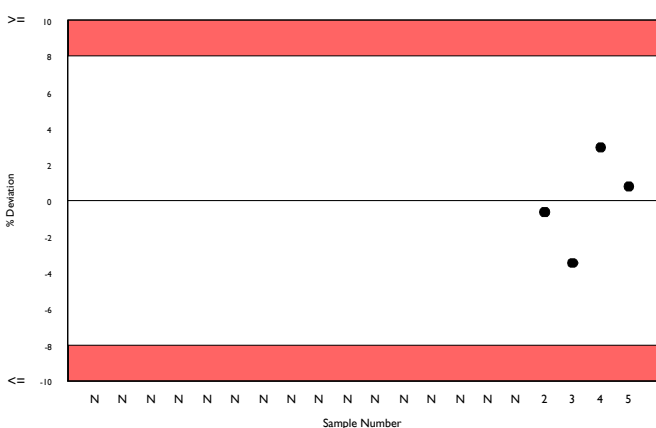
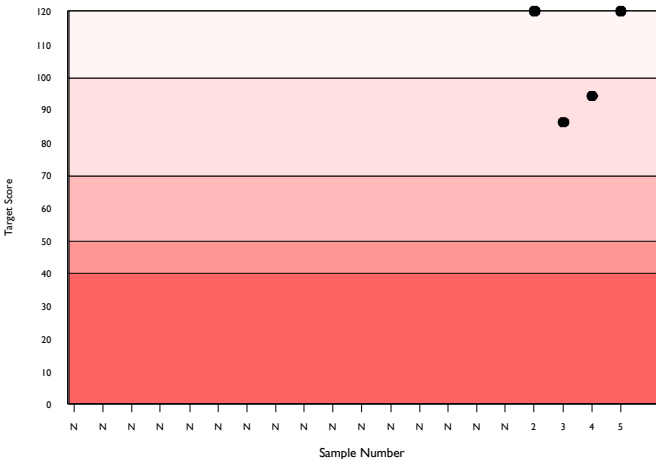
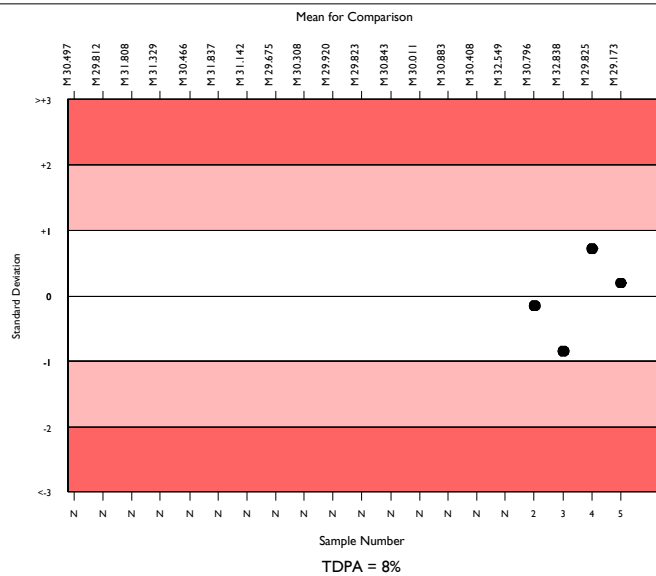
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7345	29.162	2.1	0.01	1.19	640
Abbott Cell-Dyn Ruby	372	29.173	2.3	0.04	1.19	23

▲ Your Result	29.400	SDI	0.19
		RMSDI	Too Few
■ Mean for Comparison	29.173	TS	120
		RMTS	Too Few
		%DEV	0.8
		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	1741	29.165	1.3	0.01
Sysmex XN-L Series (330/350/450/550)	645	29.010	1.2	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	375	29.385	1.5	0.03
Abbott Cell-Dyn Ruby	372	29.173	2.3	0.04
Beckman Coulter DxH 600/800/900 Series	359	28.874	1.3	0.02
Sysmex XP Series	327	29.044	2.1	0.04
Mindray BC 1000/2000/3000 series	287	28.903	2.9	0.06
Nihon Kohden Celltac Alpha/plus	273	29.398	2.8	0.06
Sysmex XS series	260	29.264	1.3	0.03
Siemens/Bayer Advia 120/2120	260	29.696	1.8	0.04
Sysmex XT series	159	29.063	1.3	0.04
Mindray BC 5100/5180/5300/5380/5390	155	29.201	2.0	0.06
Mindray BC 5000/5150/5140/5130/5120	133	29.390	2.1	0.07
ABX Micros/Minos/ABC VET	128	29.049	3.1	0.10
Beckman Coulter DxH 500 Series	107	26.333	2.9	0.09
Sysmex KX 21	109	29.151	2.2	0.08
Mindray BC 10/20/30	109	29.958	2.4	0.09
Horiba ABX Pentra 60/80/XLR	102	29.427	1.5	0.06
Horiba Yumizen H500/ 550	99	28.795	2.3	0.08
Nihon Kohden Celltac E/Es	91	29.359	2.5	0.10
Boule Medonic/ Swelab 3-part diff	82	29.371	1.7	0.07

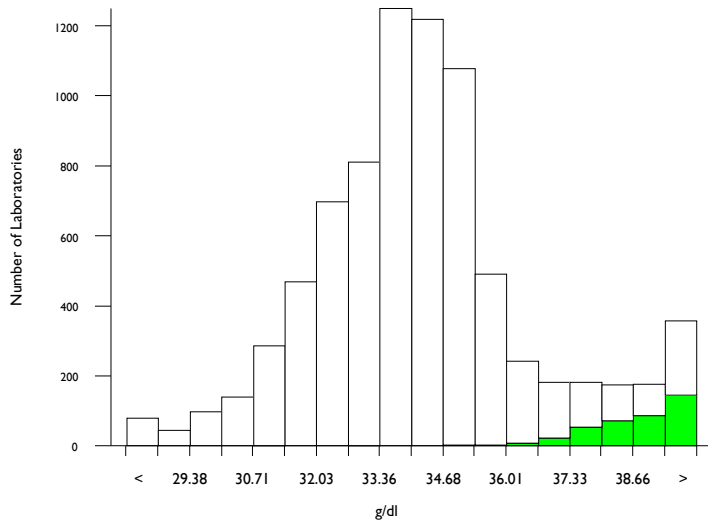


# MCHC, g/dl

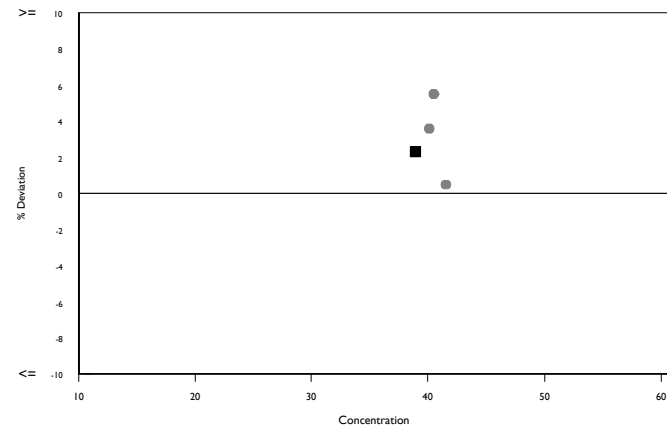
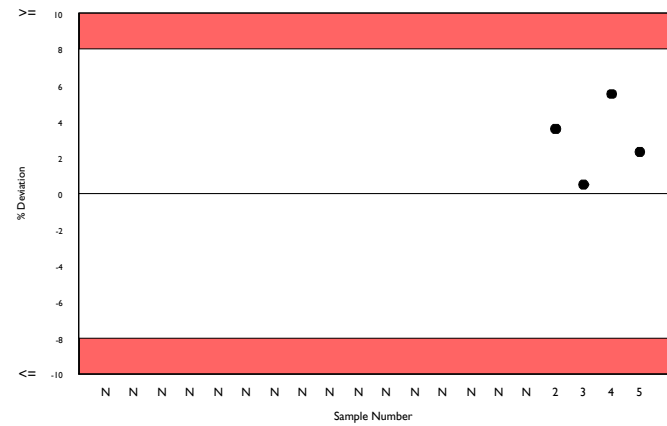
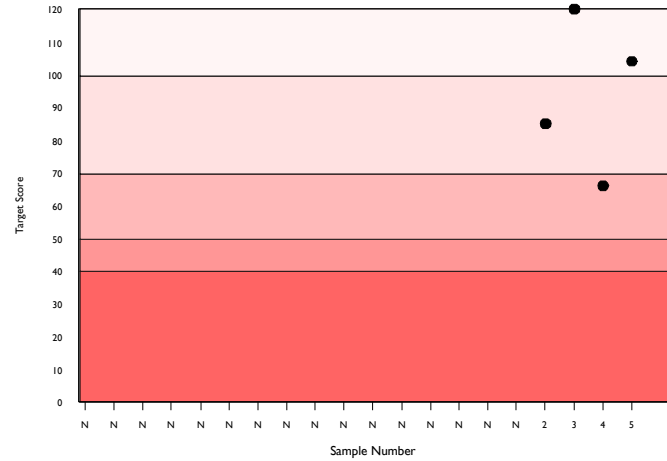
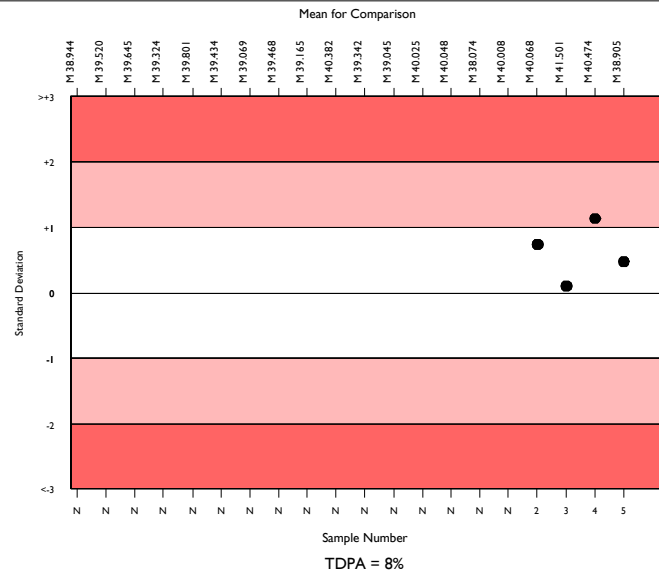
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7326	34.026	5.2	0.03	1.65	639
Abbott Cell-Dyn Ruby	358	38.905	2.6	0.07	1.89	35

▲ Your Result	39.800	SDI	0.47
		RMSDI	Too Few
■ Mean for Comparison	38.905	TS	104
		RMTS	Too Few
		%DEV	2.3
		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	1745	34.364	1.9	0.02
Sysmex XN-L Series (330/350/450/550)	646	34.114	2.1	0.04
Mindray BC-6000/6200/6600/6800/6800Plus	374	31.611	1.7	0.03
Abbott Cell-Dyn Ruby	358	38.905	2.6	0.07
Beckman Coulter DxH 600/800/900 Series	362	32.866	1.5	0.03
Sysmex XP Series	323	36.074	3.1	0.08
Mindray BC 1000/2000/3000 series	281	33.203	3.8	0.09
Nihon Kohden Celltac Alpha/plus	267	33.907	3.8	0.10
Sysmex XS series	258	34.445	2.0	0.05
Siemens/Bayer Advia 120/2120	258	38.548	2.6	0.08
Sysmex XT series	163	34.338	2.1	0.07
Mindray BC 5100/5180/5300/5380/5390	151	32.491	2.5	0.08
Mindray BC 5000/5150/5140/5130/5120	134	32.859	2.7	0.09
ABX Micros/Minos/ABC VET	127	34.222	3.5	0.13
Beckman Coulter DxH 500 Series	106	30.720	3.0	0.11
Sysmex KX 21	111	36.025	3.3	0.14
Mindray BC 10/20/30	111	33.666	2.9	0.12
Horiba ABX Pentra 60/80/XLR	99	36.387	2.0	0.09
Horiba Yumizen H500/ 550	101	34.362	2.8	0.12
Nihon Kohden Celltac E/Es	85	33.310	3.2	0.15
Boule Medonic/ Swelab 3-part diff	79	34.401	2.6	0.13

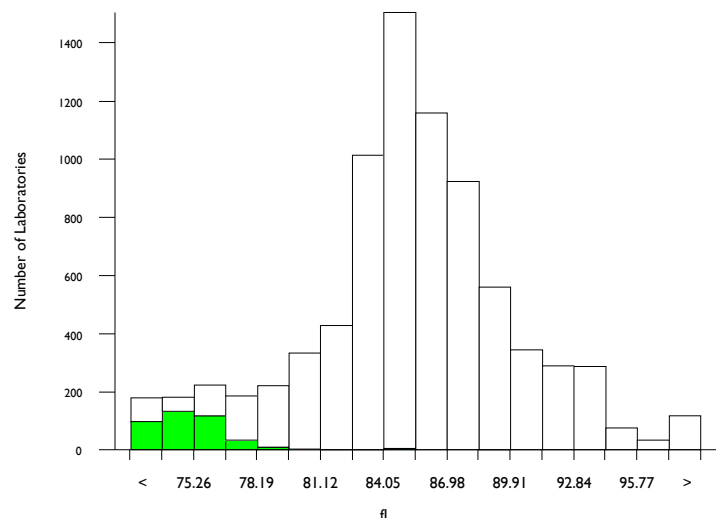


# MCV, fL

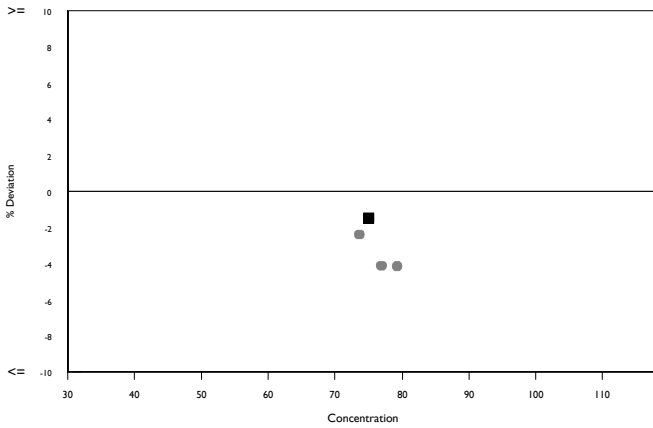
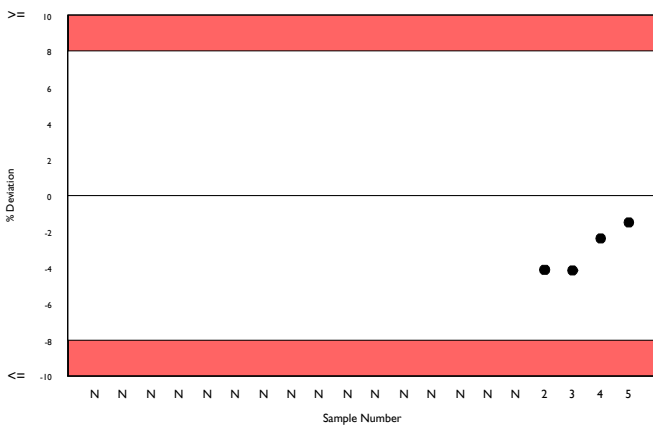
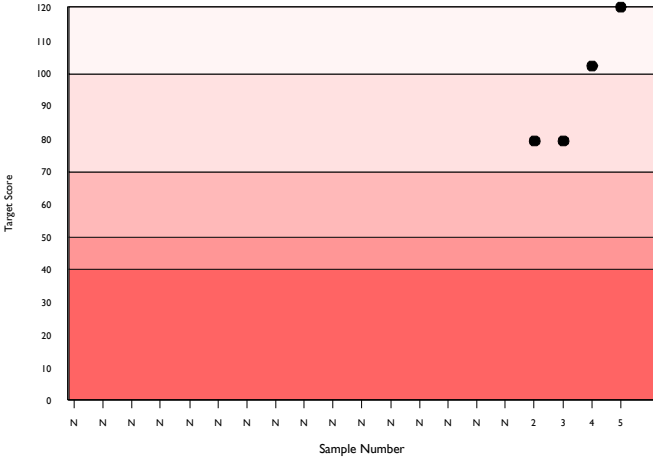
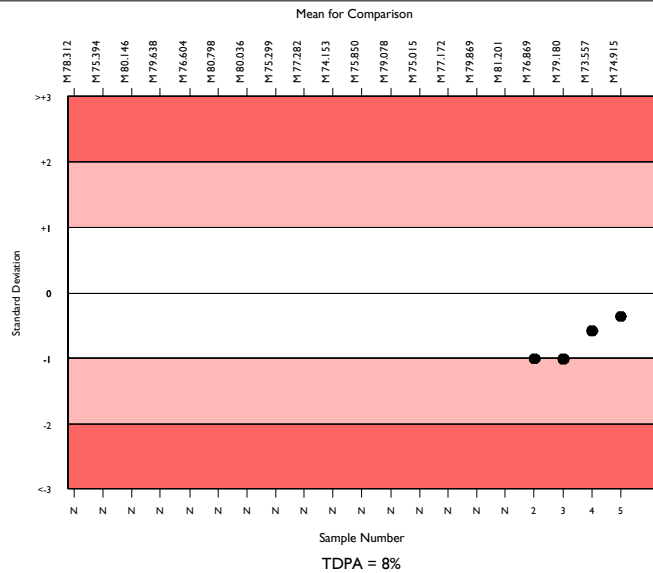
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7472	85.524	4.6	0.06	3.49	573
Abbott Cell-Dyn Ruby	361	74.915	2.0	0.10	3.06	36

▲ Your Result	73.800	SDI	-0.36
		RMSDI	Too Few
■ Mean for Comparison	74.915	TS	120
		RMTS	Too Few
		%DEV	-1.5
		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	1736	84.879	1.6	0.04
Sysmex XN-L Series (330/350/450/550)	646	84.974	1.7	0.07
Mindray BC-6000/6200/6600/6800/6800Plus	366	92.968	1.2	0.07
Abbott Cell-Dyn Ruby	361	74.915	2.0	0.10
Beckman Coulter DxH 600/800/900 Series	361	87.912	0.9	0.05
Sysmex XP Series	321	80.456	2.2	0.12
Mindray BC1000/2000/3000 series	296	87.253	3.1	0.19
Nihon Kohden Celltac Alpha/plus	281	86.868	2.7	0.18
Sysmex XS series	262	84.996	1.8	0.12
Siemens/Bayer Advia 120/2120	266	77.289	2.0	0.12
Sysmex XT series	163	84.677	1.6	0.13
Mindray BC 5100/5180/5300/5380/5390	158	89.945	2.5	0.23
Mindray BC 5000/5150/5140/5130/5120	136	89.496	1.9	0.18
ABX Micros/Minos/ABC VET	131	84.740	3.0	0.28
Beckman Coulter DxH 500 Series	112	86.090	1.8	0.18
Mindray BC 10/20/30	107	88.624	1.8	0.19
Sysmex KX 21	104	81.030	2.4	0.24
Horiba Yumizen H500/ 550	102	83.419	1.7	0.18
Horiba ABX Pentra 60/80/XLR	96	81.022	1.5	0.15
Nihon Kohden Celltac E/Es	87	88.131	2.4	0.28
Boule Medonic/ Swelab 3-part diff	84	85.356	2.3	0.27

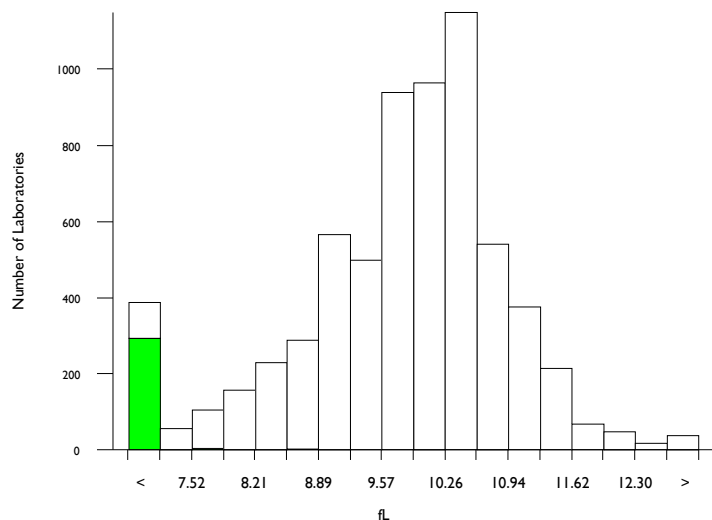


# Mean Platelet Volume, fL

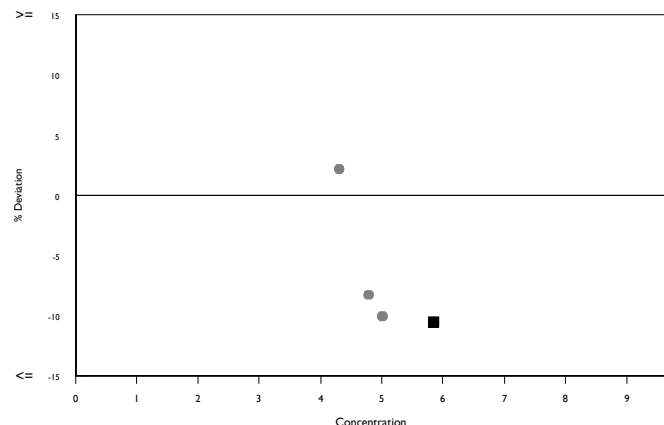
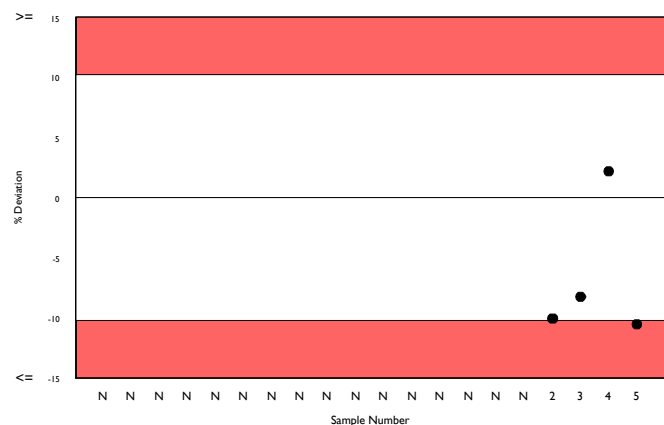
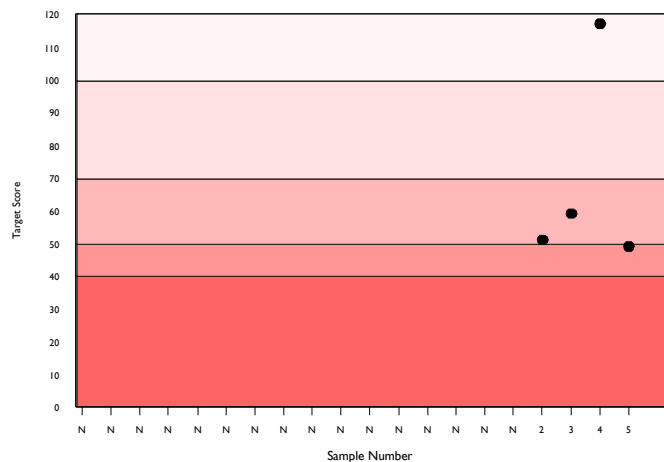
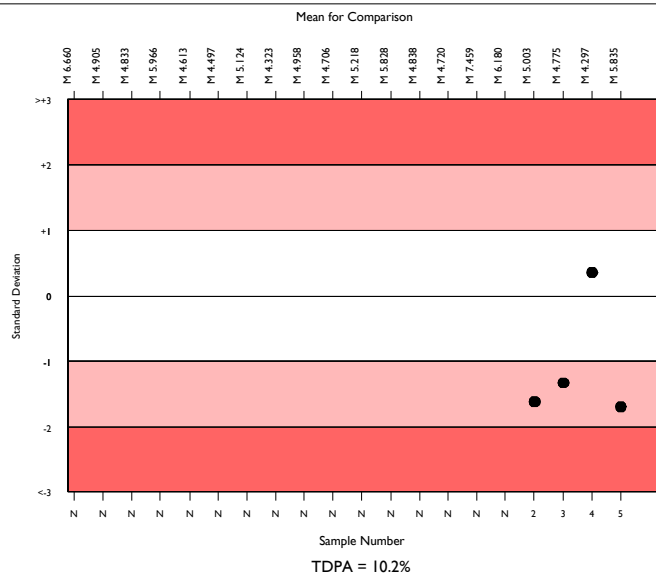
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	6168	9.919	9.2	0.01	0.62	463
Abbott Cell-Dyn Ruby	283	5.835	8.0	0.03	0.36	24

▲ Your Result	5.220	SDI	-1.70
		RMSDI	Too Few
■ Mean for Comparison	5.835	TS	49
		RMTS	Too Few
		%DEV	-10.5
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	10.20%
TS & %DEV outside limits	



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1479	10.315	4.2	0.01
Sysmex XN-L Series (330/350/450/550)	447	10.363	4.6	0.03
Mindray BC-6000/6200/6600/6800/6800Plus	346	10.820	4.8	0.04
Beckman Coulter DxH 600/800/900 Series	299	8.835	3.4	0.02
Abbott Cell-Dyn Ruby	283	5.835	8.0	0.03
Sysmex XP Series	274	9.890	4.9	0.04
Mindray BC 1000/2000/3000 series	270	9.554	6.3	0.05
Nihon Kohden Celltac Alpha/plus	247	8.886	6.2	0.04
Sysmex XS series	223	10.416	4.7	0.04
Siemens/Bayer Advia 120/2120	194	10.492	6.1	0.06
Sysmex XT series	139	10.043	3.8	0.04
Mindray BC 5000/5150/5140/5130/5120	120	10.301	3.8	0.05
Mindray BC 5100/5180/5300/5380	106	9.390	3.9	0.04
Beckman Coulter DxH 500 Series	95	9.927	5.3	0.07
Mindray BC 10/20/30	95	9.997	3.8	0.05
ABX Micros/Minos/ABC VET	92	8.630	5.9	0.07
Sysmex KX 21	85	9.760	5.4	0.07
Horiba Yumizen H500/ 550	85	10.790	6.0	0.09
Horiba ABX Pentra 60/80/XLR	84	10.001	4.4	0.06
Boule Medonic/ Swelab 3-part diff	73	9.232	5.9	0.08
Nihon Kohden Celltac E/Es	68	7.873	3.7	0.04

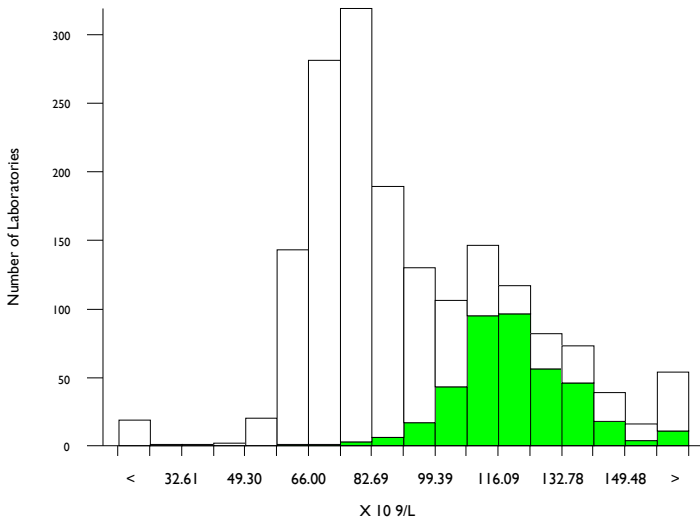


# Platelets (Optical Count), X 10<sup>9</sup>/L

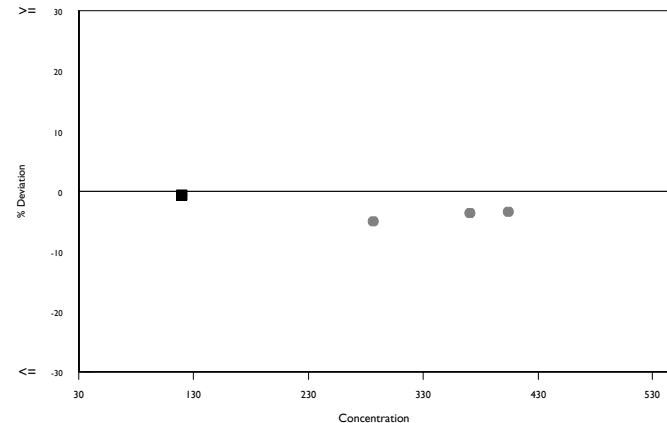
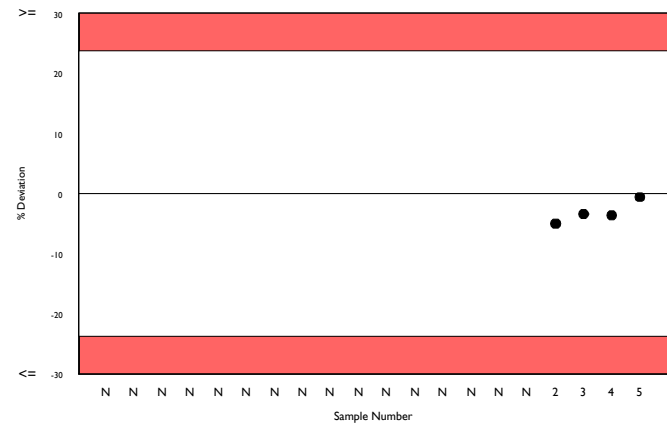
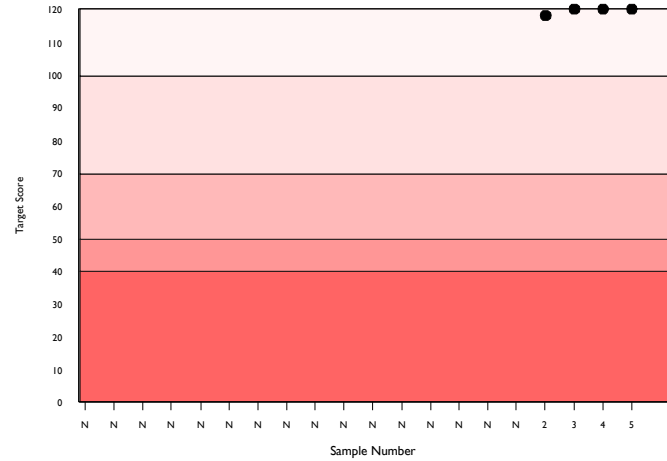
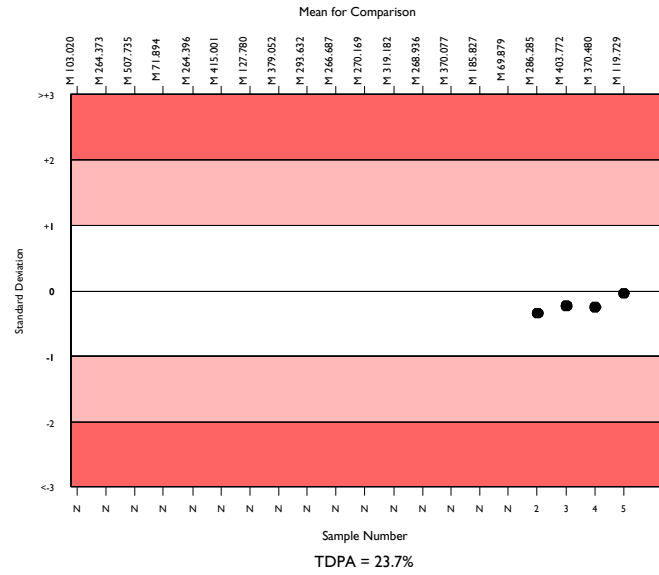
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1620	91.046	24.5	0.69	13.12	118
Abbott Cell-Dyn Ruby	370	119.729	10.2	0.80	17.25	27

▲ Your Result	119.000	SDI	-0.04
		RMSDI	Too Few
■ Mean for Comparison	119.729	TS	120
		RMTS	Too Few
		%DEV	-0.6
		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	340	87.735	15.8	0.94
Abbott Cell-Dyn Ruby	370	119.729	10.2	0.80
Siemens/Bayer Advia 120/2120	264	66.116	7.1	0.36
Sysmex XN Series PLT-O	154	101.393	29.5	3.01
Abbott Alinity iq	83	89.786	11.8	1.45
Mindray BC-6000/6200/6600/6800/6800Plus	67	79.478	7.6	0.92
Sysmex XN-L Series (330/350/450/550)	60	77.569	6.5	0.81
Sysmex XS Series	51	73.450	6.1	0.78
Sysmex XT Series	36	86.440	20.7	3.74
Beckman Coulter DxH 600/800/900 Series	23	80.761	6.0	1.26
Abbott Cell-Dyn 3200	22	107.432	22.1	6.32
Sysmex KX21	11	78.636	6.8	2.00
Horiba Yumizen H500/ 550	10	85.404	9.3	3.13
Abbott Cell-Dyn Sapphire	12	110.975	14.4	5.78
Horiba ABX Pentra 60/80/XLR	9	83.589	9.9	3.45
Beckman Coulter DxH 500 Series	7	83.857	5.3	2.10
UDIHEM-D	7	77.086	8.1	2.93
Sysmex XN Series PLT-F	6	76.833	7.8	3.05
IDEXX ProCyte Dx Haematology Analyser	5	102.200	30.5	17.45
Mindray BC760/780	5	76.700	7.6	3.25
ABX Micros/Minos/ABC VET	5	80.200	17.1	7.68



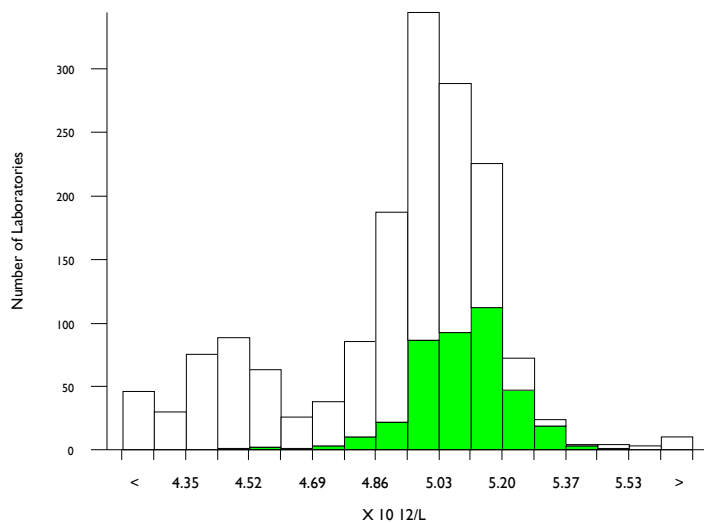


# RBC (Optical Count), X 10<sup>12</sup>/L

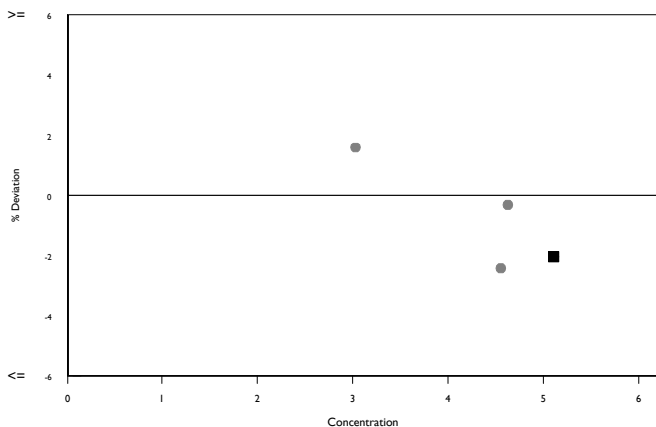
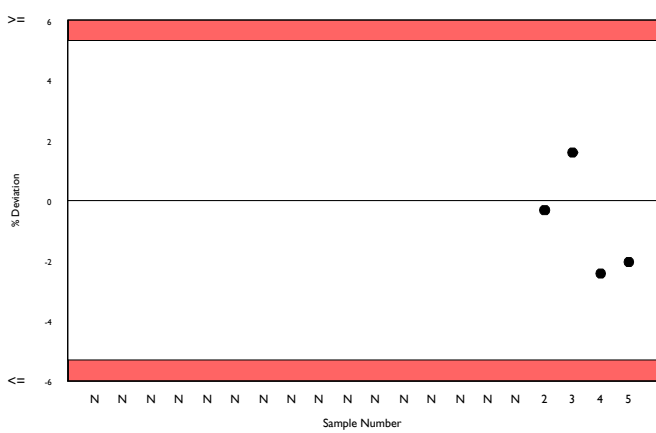
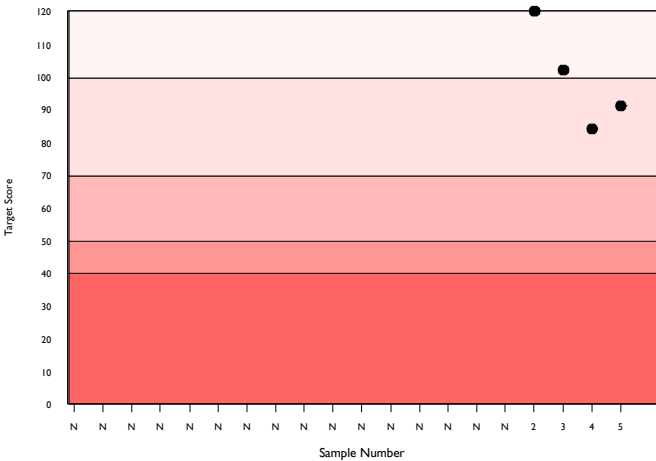
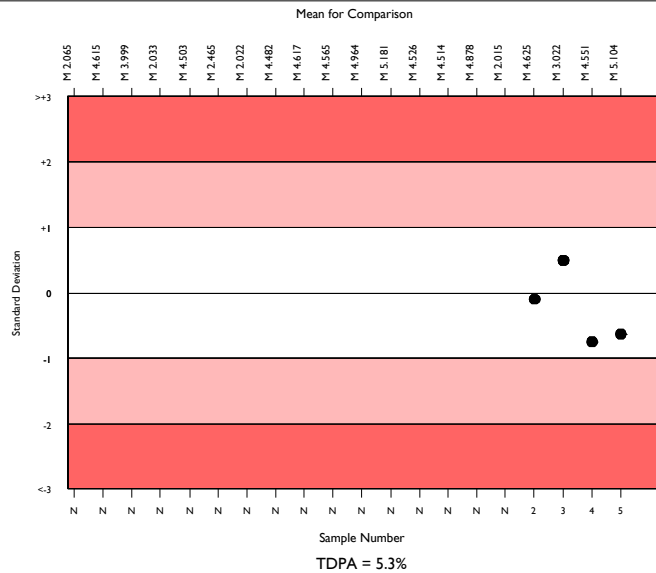
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1507	4.947	4.6	0.01	0.16	106
Abbott Cell-Dyn Ruby	371	5.104	2.0	0.01	0.16	28

▲ Your Result	5.000	SDI	-0.63
		RMSDI	Too Few
■ Mean for Comparison	5.104	TS	91
		RMTS	Too Few
		%DEV	-2.0
		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	371	5.104	2.0	0.01
Manual Methods	291	4.477	2.9	0.01
Siemens/Bayer Advia 120/2120	263	4.968	1.8	0.01
Sysmex XN Series	183	5.067	1.8	0.01
Abbott Alinity iq	79	4.962	1.8	0.01
Sysmex XS Series	52	5.043	1.4	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	53	5.032	2.2	0.02
Sysmex XT Series	36	5.020	2.2	0.02
Beckman Coulter DxH 600/800/900 Series	23	4.952	0.8	0.01
Abbott Cell-Dyn 3200	22	5.031	2.0	0.03
Sysmex KX21	16	4.958	1.5	0.02
Horiba ABX Pentra 60/80/XLR	11	5.006	2.0	0.04
Horiba Yumizen H500/ 550	10	5.100	2.2	0.04
Beckman Coulter DxH 500 Series	9	5.014	2.6	0.05
UDIHEM-D	8	5.099	2.1	0.05
Abbott Cell-Dyn Sapphire	7	5.017	2.3	0.06
Avantor Benesphera H-51	3	4.930	2.4	0.09
Orphee Mythic I8	3	4.890	2.3	0.08
ABX Micros/Minos/ABC VET	3	4.977	1.5	0.05
ABX Pentra 120/Nexus Series	3	4.913	2.2	0.08
MTI Diagnostics Auto Star Diff 5	2	5.090	1.7	0.07

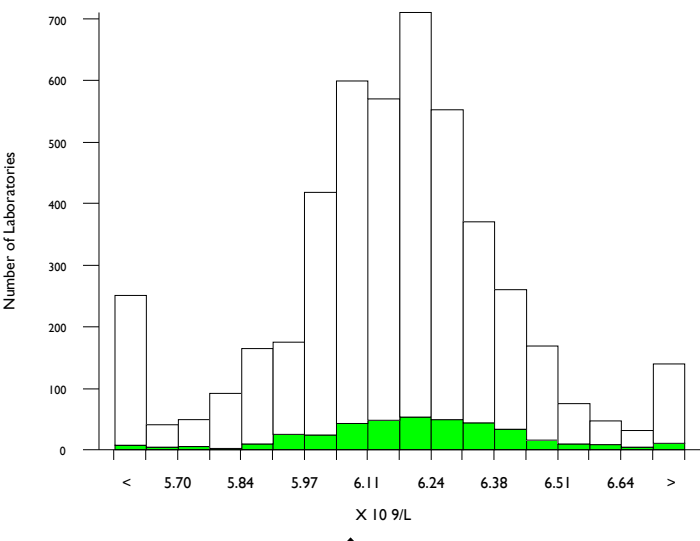


# WBC (Optical Count), X 10<sup>9</sup>/L

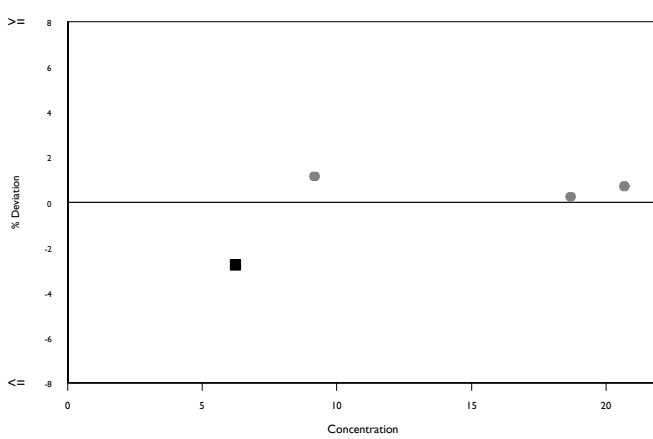
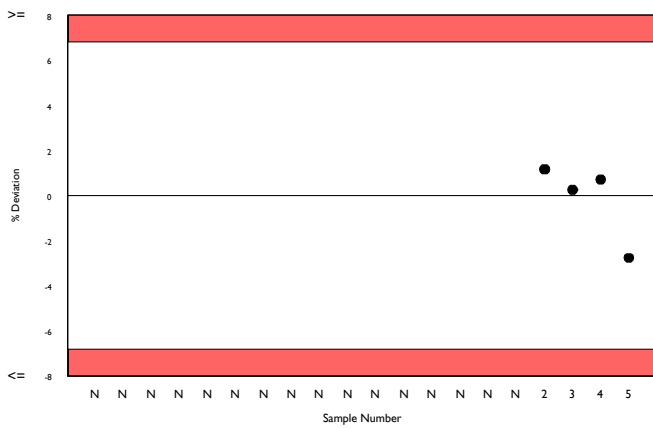
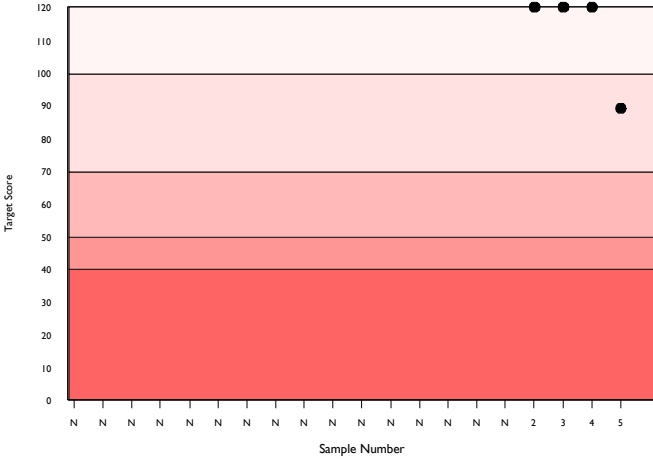
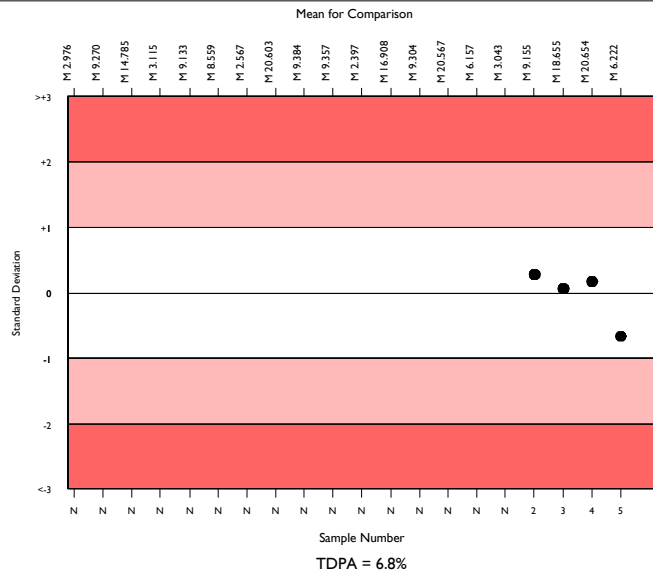
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	4282	6.180	2.9	0.00	0.26	429
Abbott Cell-Dyn Ruby	365	6.222	2.8	0.01	0.26	34

<b>▲ Your Result</b>	6.050	SDI	-0.67
		RMSDI	Too Few
<b>■ Mean for Comparison</b>	6.222	TS	89
		RMTS	Too Few
		%DEV	-2.8
		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	1612	6.173	1.9	0.00
Manual methods	387	6.147	7.1	0.03
Sysmex XN-L Series (330/350/450/550)	397	6.292	2.1	0.01
Abbott Cell-Dyn Ruby	365	6.222	2.8	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	356	6.072	2.4	0.01
Sysmex XS Series	259	6.331	2.8	0.01
Siemens/Bayer Advia 120/2120	258	6.041	3.3	0.02
Sysmex XT Series	152	6.281	2.4	0.02
Mindray BC 5000/5150/5140/5130/5120	124	6.123	2.8	0.02
Abbott Alinity hq	82	6.129	2.5	0.02
Mindray BC 5600/5800	47	6.210	3.6	0.04
Beckman Coulter DxH 600/800/900 Series	37	6.060	2.1	0.03
Abbott Cell-Dyn 3200	23	6.213	3.2	0.05
Sysmex KX21	19	6.104	2.8	0.05
Mindray BC760/780	18	6.324	2.8	0.05
Horiba Yumizen H500/ 550	17	5.889	3.0	0.05
Horiba ABX Pentra 60/80/XLR	15	6.158	2.8	0.05
Beckman Coulter DxH 500 Series	13	6.152	3.5	0.07
Abbott Cell-Dyn Sapphire	9	6.324	1.1	0.03
Shenzhen Dymind DF50	11	6.230	3.5	0.08
Mindray BC 5200/5500	8	6.339	2.5	0.07



Analyte	Mean for Comparison	Your Result	SDI	RMSDI	%DEV	RM%DEV	TS	RMTS	Performance
Haemoglobin	14.868	14.700	-0.44	Too Few	-1.1	Too Few	107	Too Few	
Haematocrit (HCT)	38.227	36.900	-0.85	Too Few	-3.5	Too Few	86	Too Few	
MCH	29.173	29.400	0.19	Too Few	0.8	Too Few	120	Too Few	
MCHC	38.905	39.800	0.47	Too Few	2.3	Too Few	104	Too Few	
MCV	74.915	73.800	-0.36	Too Few	-1.5	Too Few	120	Too Few	
Mean Platelet Volume	5.835	5.220	-1.70	Too Few	<b>-10.5</b>	Too Few	<b>49</b>	Too Few	
Platelets (Optical Count)	119.729	119.000	-0.04	Too Few	-0.6	Too Few	120	Too Few	
RBC (Optical Count)	5.104	5.000	-0.63	Too Few	-2.0	Too Few	91	Too Few	
WBC (Optical Count)	6.222	6.050	-0.67	Too Few	-2.8	Too Few	89	Too Few	

ORMSDI N/A

ORM%DEV N/A

ORMTS N/A

END OF REPORT