

Laboratorio Emotest s.r.l.

# MONTHLY HAEMATOLOGY

CYCLE 16 SAMPLE 11

## Explanation of codes used in this report

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

Authorised by: Sally Picton, RIQAS Manager

Issue No: 1

Issue Date: 16/11/2023

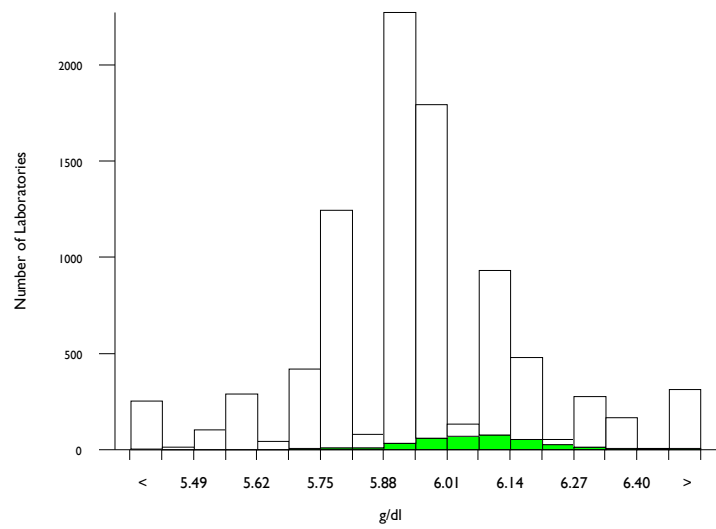
Randox Laboratories Limited  
55 Diamond Road  
CRUMLIN BT29 4QY  
Tel: +44 (0)28 9445 4399  
Fax: +44 (0)28 9445 4398  
Email: mail@riqas.com

# Haemoglobin, g/dl

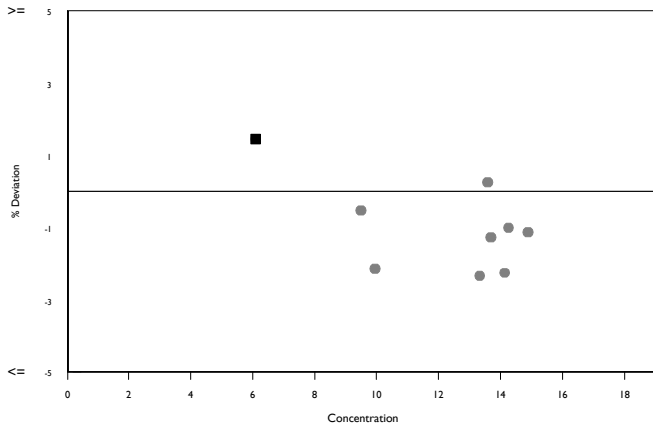
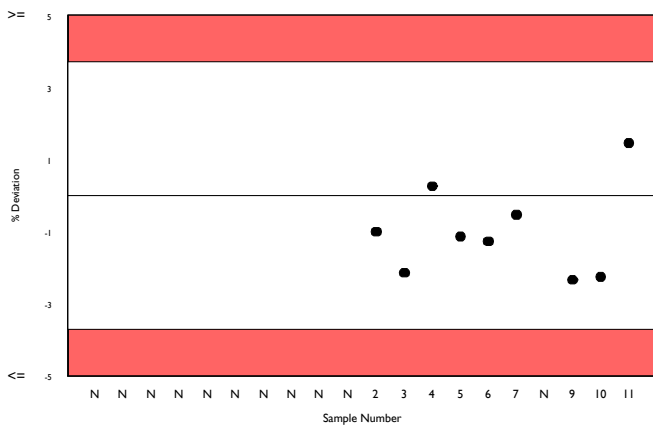
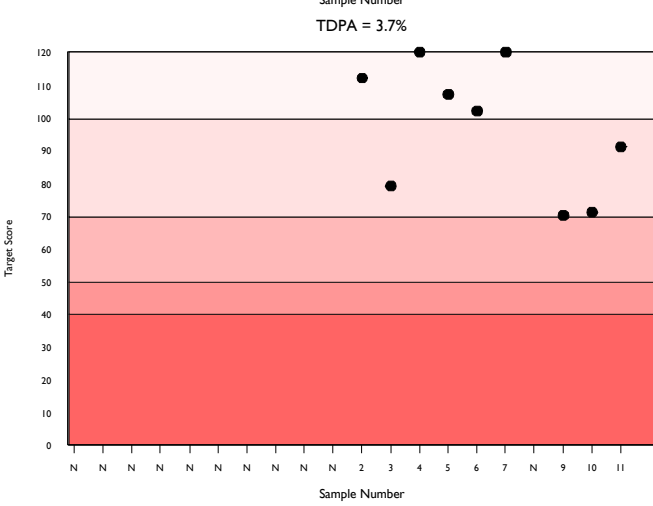
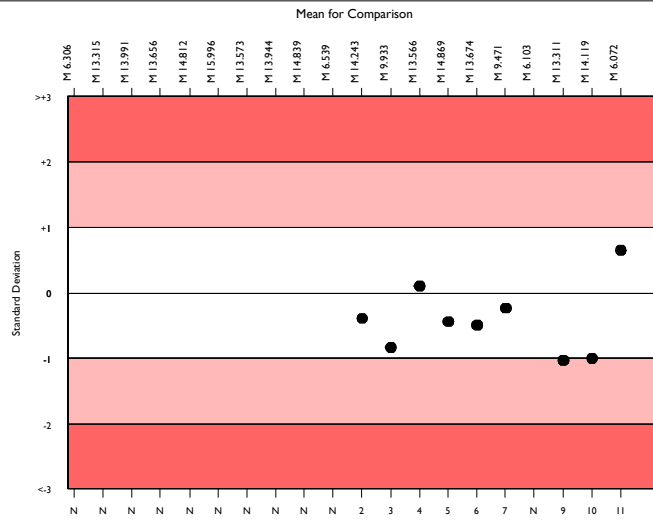
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	8293	5.947	2.9	0.00	0.13	589
Abbott Cell-Dyn Ruby	369	6.072	2.0	0.01	0.14	33

▲ Your Result	6.160	SDI	0.64
		RMSDI	Too Few
■ Mean for Comparison	6.072	TS	91
		RMTS	Too Few
		%DEV	1.4
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	3.70%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1939	5.930	1.4	0.00
Sysmex XN-L Series (330/350/450/550)	727	5.861	1.3	0.00
Mindray BC-6000/6200/6600/6800/6800Plus	441	5.987	1.4	0.01
Abbott Cell-Dyn Ruby	369	6.072	2.0	0.01
Beckman Coulter DxH 600/800/900 Series	362	5.903	1.1	0.00
Sysmex XP Series	352	5.891	2.7	0.01
Mindray BC 1000/2000/3000 series	281	5.941	2.9	0.01
Nihon Kohden Celltac Alpha/plus	284	6.146	3.5	0.02
Siemens/Bayer Advia 120/2120	253	6.293	1.7	0.01
Calculated from HCT	229	5.522	3.6	0.02
Sysmex XS series	231	5.881	1.6	0.01
Mindray BC 5100/5180/5300/5380/5390	176	5.975	2.0	0.01
Manual Methods	168	5.585	4.4	0.02
Mindray BC 5000/5150/5140/5130/5120	149	5.977	1.7	0.01
ABX Micros/Minos/ABC VET	126	5.925	3.1	0.02
Mindray BC 10/20/30	129	6.056	2.2	0.01
Beckman Coulter DxH 500 Series	123	5.665	1.8	0.01
Horiba Yumizen H500/ 550	122	6.016	1.4	0.01
Sysmex XT series	111	5.944	1.4	0.01
Sysmex KX 21	99	5.942	2.8	0.02
Nihon Kohden Celltac E/Es	97	6.054	2.6	0.02

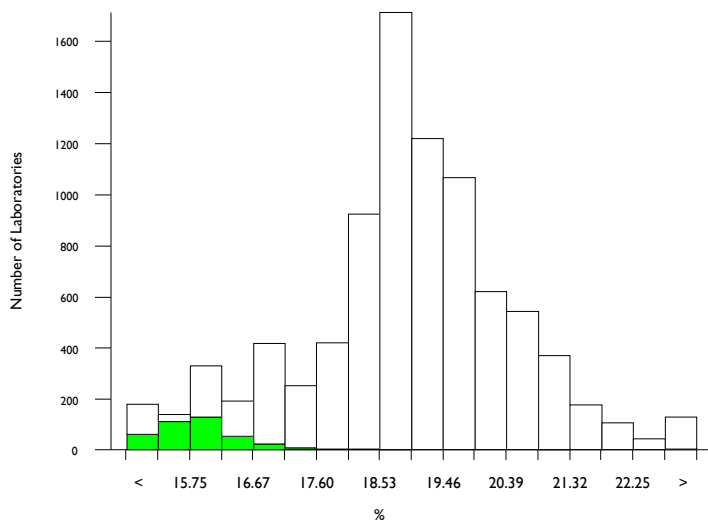


# Haematocrit (HCT), %

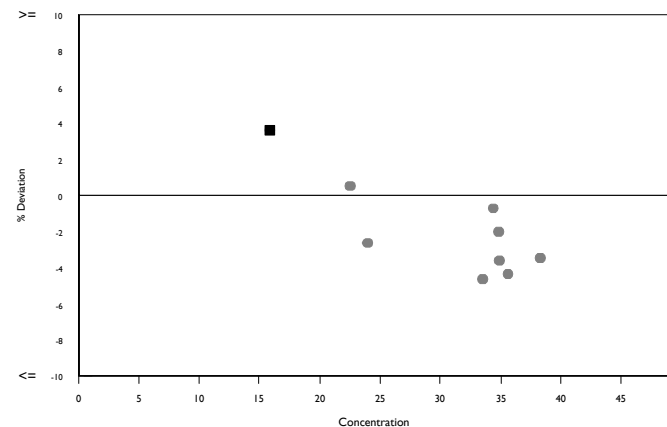
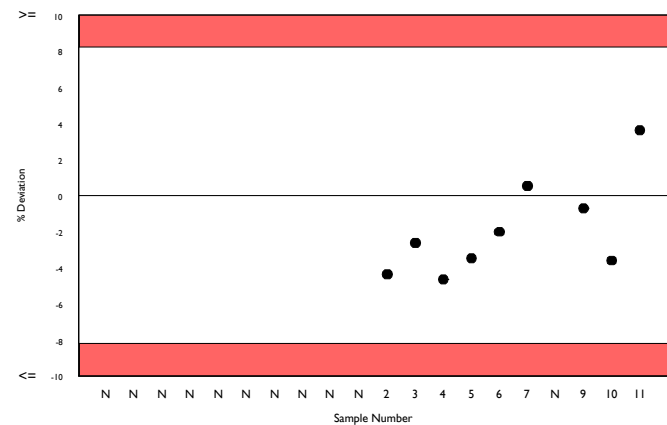
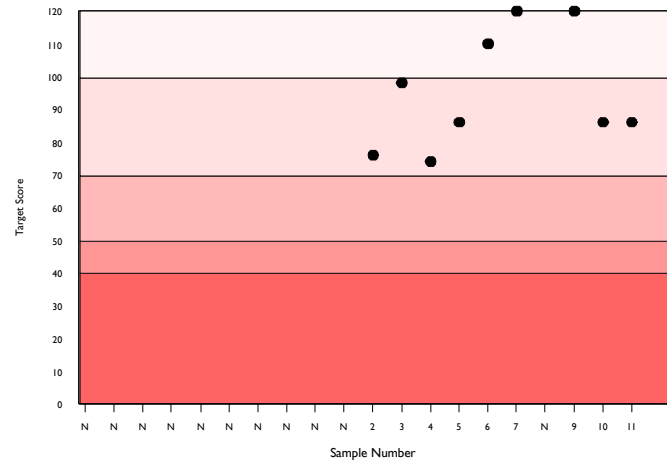
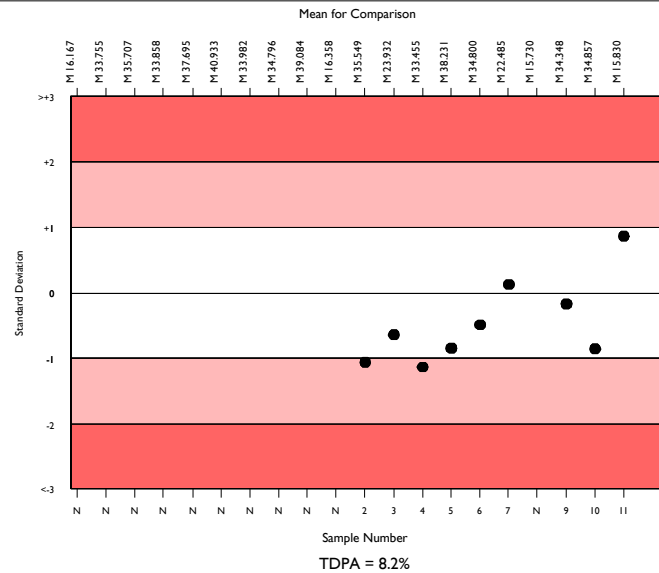
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	8182	19.002	6.5	0.02	0.79	655
Abbott Cell-Dyn Ruby	371	15.830	3.5	0.04	0.66	25

▲ Your Result	16.400	SDI	0.86
		RMSDI	Too Few
■ Mean for Comparison	15.830	TS	86
		RMTS	Too Few
		%DEV	3.6
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1875	18.971	2.6	0.01
Sysmex XN-L Series (330/350/450/550)	706	19.174	2.9	0.03
Mindray BC-6000/6200/6600/6800/6800Plus	439	21.009	2.5	0.03
Beckman Coulter DxH 600/800/900 Series	369	18.838	2.0	0.02
Abbott Cell-Dyn Ruby	371	15.830	3.5	0.04
Sysmex XP Series	340	18.624	3.4	0.04
Mindray BC 1000/2000/3000 series	295	19.375	4.5	0.06
Nihon Kohden Celltac Alpha/plus	281	19.728	4.0	0.06
Microhematocrit Centrifugation	263	16.801	3.3	0.04
Siemens/Bayer Advia 120/2120	243	16.467	2.5	0.03
Sysmex XS series	236	19.778	3.7	0.06
Mindray BC 5100/5180/5300/5380/5390	172	20.186	3.4	0.07
Manual Methods	169	16.833	3.7	0.06
Mindray BC 5000/5150/5140/5130/5120	143	19.751	3.7	0.08
ABX Micros/Minos/ABC VET	126	18.333	4.3	0.09
Mindray BC 10/20/30	127	19.266	3.2	0.07
Beckman Coulter DxH 500 Series	128	19.043	3.4	0.07
Horiba Yumizen H500/ 550	120	17.897	3.1	0.06
Sysmex XT series	114	19.979	3.8	0.09
Sysmex KX 21	99	18.730	3.4	0.08
Nihon Kohden Celltac E/Es	100	20.104	2.9	0.07

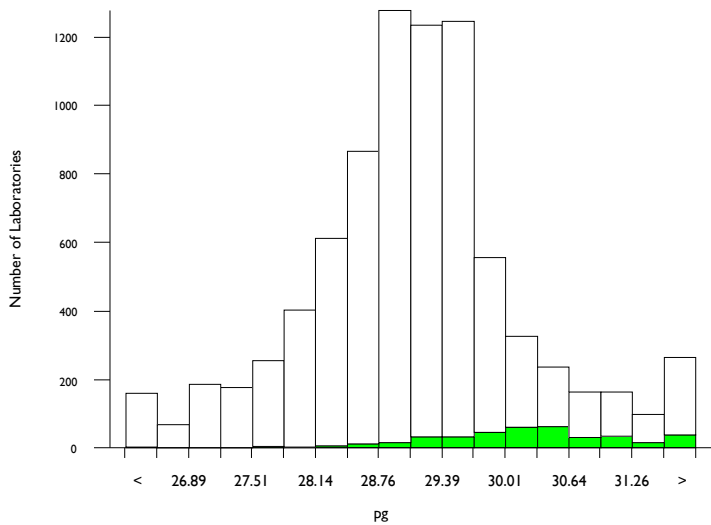


# MCH, pg

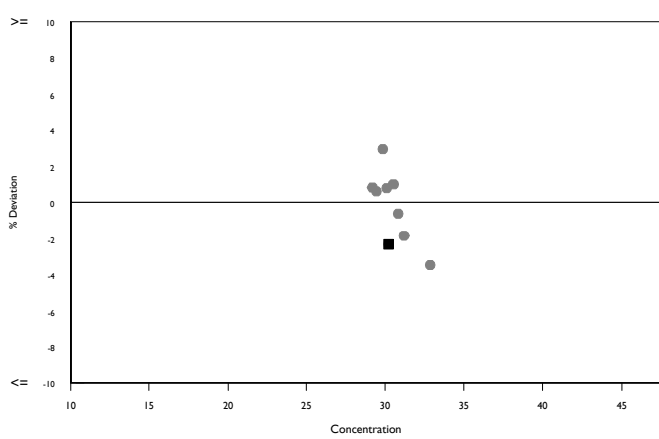
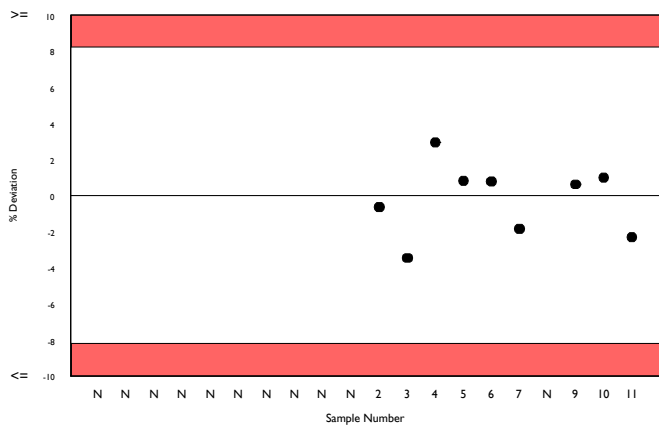
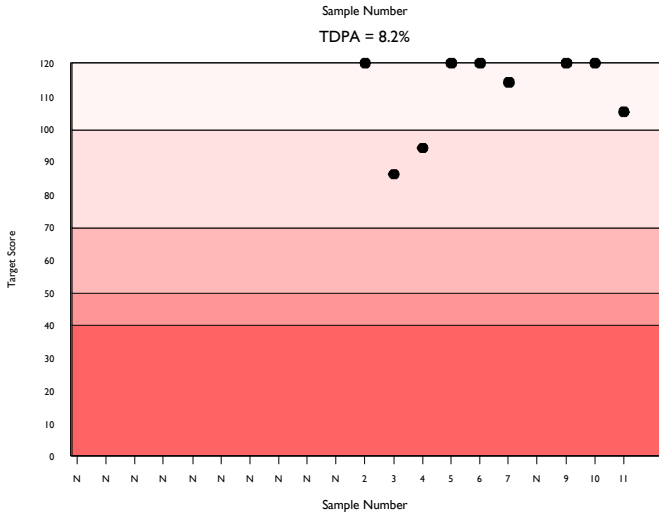
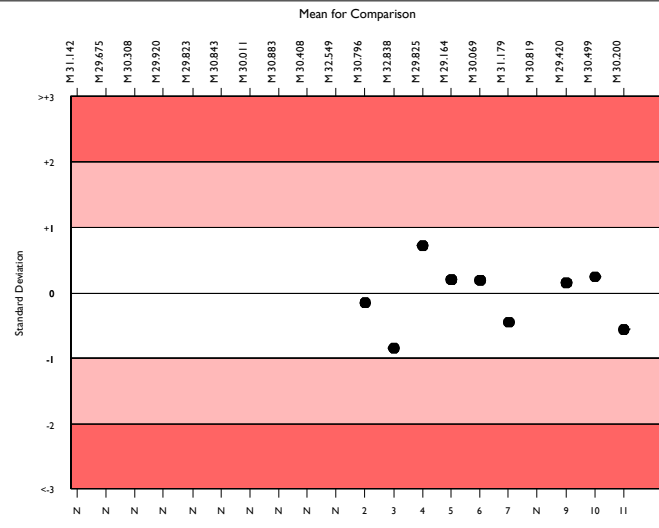
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7658	29.078	2.9	0.01	1.19	625
Abbott Cell-Dyn Ruby	363	30.200	2.7	0.05	1.24	32

▲ Your Result	29.500	SDI RMSDI	-0.57 Too Few
■ Mean for Comparison	30.200	TS RMTS	105 Too Few
		%DEV RM%DEV	-2.3 Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1885	29.067	1.5	0.01
Sysmex XN-L Series (330/350/450/550)	703	29.156	1.3	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	434	28.843	1.7	0.03
Beckman Coulter DxH 600/800/900 Series	371	29.267	1.4	0.03
Abbott Cell-Dyn Ruby	363	30.200	2.7	0.05
Sysmex XP Series	336	28.184	2.8	0.05
Mindray BC 1000/2000/3000 series	286	28.291	3.7	0.08
Nihon Kohden Celltac Alpha/plus	274	29.175	3.4	0.07
Siemens/Bayer Advia 120/2120	243	30.613	2.6	0.06
Sysmex XS series	229	28.938	1.7	0.04
Mindray BC 5100/5180/5300/5380/5390	174	29.040	2.0	0.05
Mindray BC 5000/5150/5140/5130/5120	139	29.385	2.3	0.07
Mindray BC 10/20/30	133	29.707	2.6	0.08
Beckman Coulter DxH 500 Series	131	27.459	2.8	0.08
ABX Micros/Minos/ABC VET	124	29.023	4.0	0.13
Horiba Yumizen H500/ 550	119	29.584	1.8	0.06
Sysmex XT series	113	28.733	2.1	0.07
Sysmex KX 21	100	28.383	3.0	0.11
Nihon Kohden Celltac E/Es	93	28.694	2.2	0.08
Horiba ABX Pentra 60/80/XLR	89	29.064	2.0	0.08
Boule Medonic/ Swelab 3-part diff	85	30.838	2.1	0.09

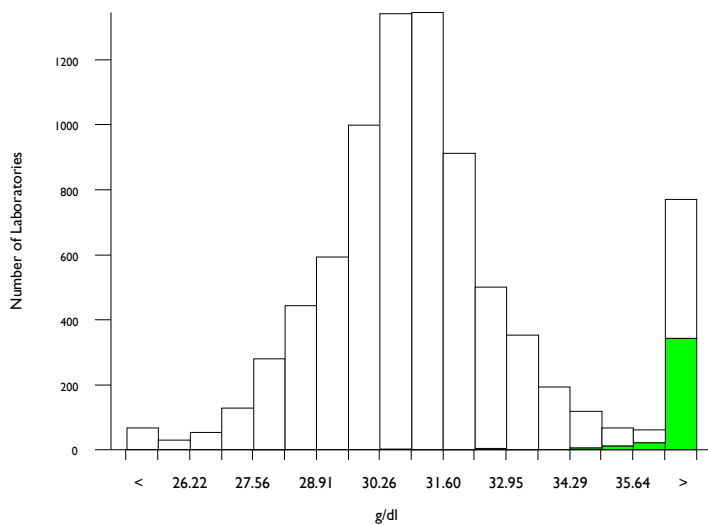


# MCHC, g/dl

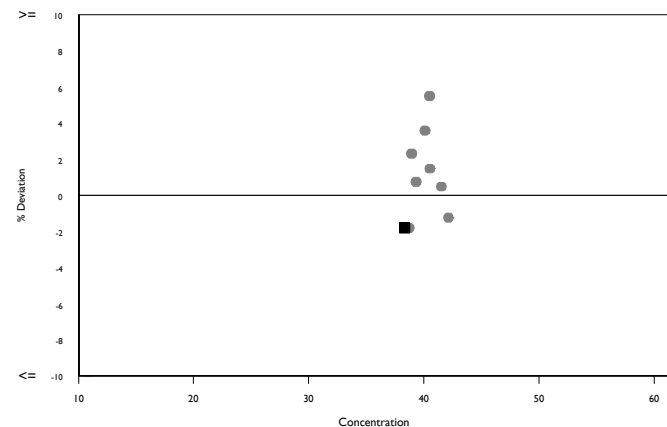
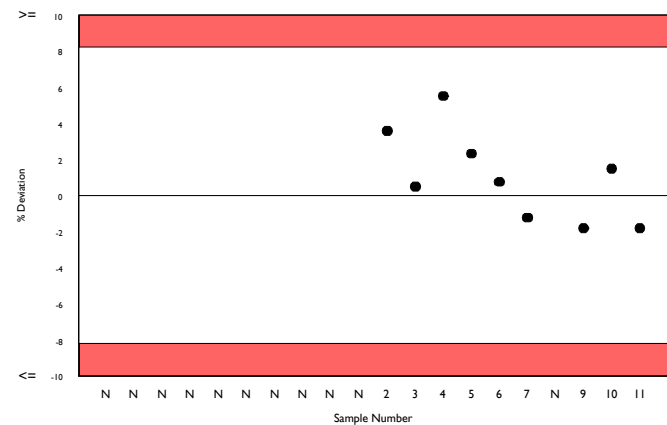
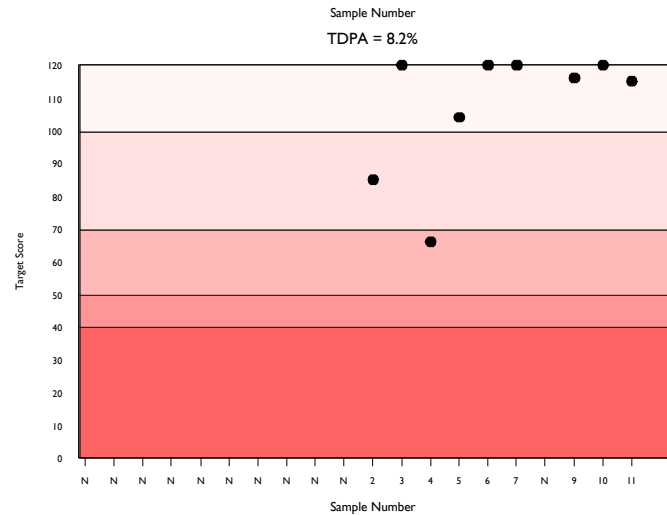
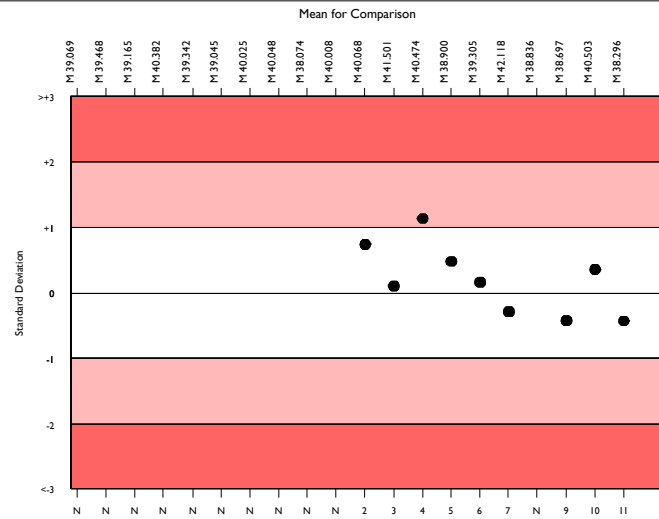
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7477	30.934	5.8	0.03	1.29	780
Abbott Cell-Dyn Ruby	354	38.296	3.4	0.09	1.60	41

▲ Your Result	37.600	SDI	-0.43
		RMSDI	Too Few
■ Mean for Comparison	38.296	TS	115
		RMTS	Too Few
		%DEV	-1.8
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	8.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1890	31.232	2.7	0.02
Sysmex XN-L Series (330/350/450/550)	703	30.589	2.8	0.04
Mindray BC-6000/6200/6600/6800/6800Plus	436	28.551	2.6	0.04
Beckman Coulter DxH 600/800/900 Series	374	31.350	2.2	0.04
Abbott Cell-Dyn Ruby	354	38.296	3.4	0.09
Sysmex XP Series	342	31.602	4.4	0.09
Mindray BC 1000/2000/3000 series	279	30.606	5.2	0.12
Nihon Kohden Celltac Alpha/plus	273	31.218	4.7	0.11
Siemens/Bayer Advia 120/2120	234	38.262	2.9	0.09
Sysmex XS series	219	29.745	3.2	0.08
Mindray BC 5100/5180/5300/5380/5390	176	29.620	4.0	0.11
Mindray BC 5000/5150/5140/5130/5120	140	30.204	3.1	0.10
Mindray BC 10/20/30	129	31.344	3.1	0.11
Beckman Coulter DxH 500 Series	126	29.670	3.5	0.12
ABX Micros/Minos/ABC VET	120	32.192	5.1	0.19
Horiba Yumizen H500/ 550	118	33.608	3.0	0.12
Sysmex XT series	113	29.756	3.9	0.13
Sysmex KX 21	97	31.564	4.1	0.16
Nihon Kohden Celltac E/Es	93	30.328	3.4	0.13
Horiba ABX Pentra 60/80/XLR	82	33.217	2.2	0.10
Boule Medonic/ Swelab 3-part diff	83	33.585	3.6	0.16

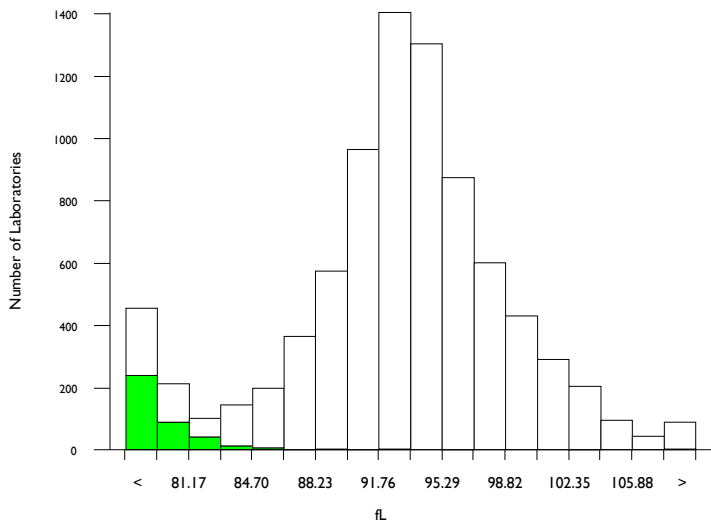


# MCV, fL

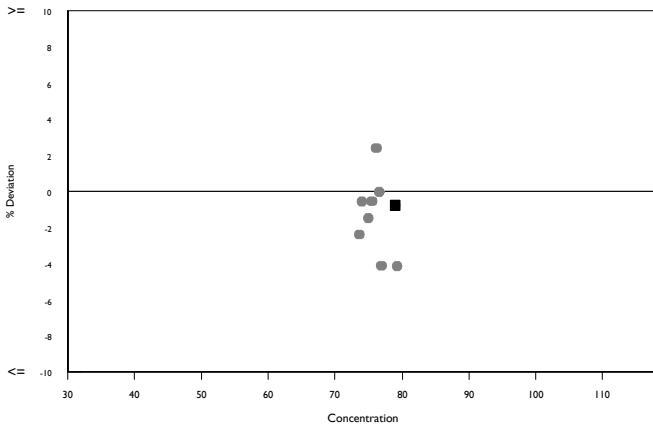
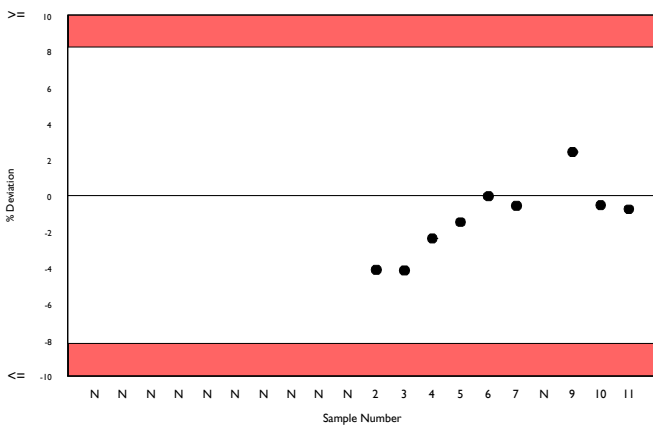
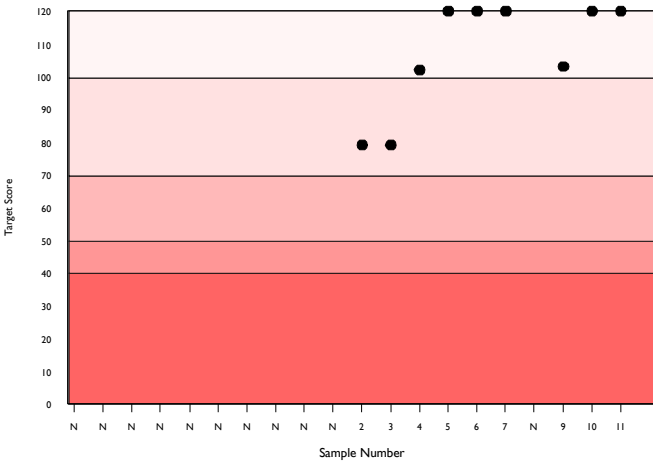
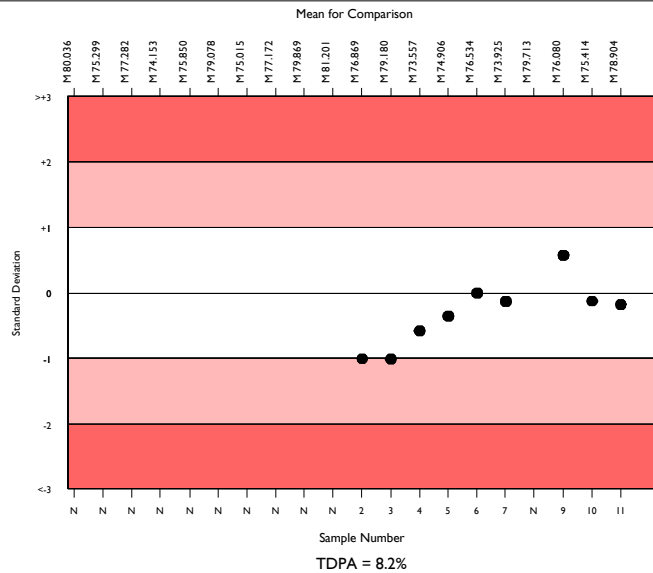
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	7625	93.530	5.0	0.07	3.91	721
Abbott Cell-Dyn Ruby	364	78.904	2.5	0.13	3.30	33

▲ Your Result	78.300	SDI	-0.18
		RMSDI	Too Few
■ Mean for Comparison	78.904	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	8.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1879	92.995	2.3	0.06
Sysmex XN-L Series (330/350/450/550)	689	95.113	2.3	0.10
Mindray BC-6000/6200/6600/6800/6800Plus	435	100.988	2.2	0.13
Abbott Cell-Dyn Ruby	364	78.904	2.5	0.13
Beckman Coulter DxH 600/800/900 Series	356	93.270	1.3	0.08
Sysmex XP Series	345	89.064	3.1	0.19
Mindray BC 1000/2000/3000 series	281	92.729	3.5	0.24
Nihon Kohden Celltac Alpha/plus	285	93.351	3.1	0.22
Siemens/Bayer Advia 120/2120	246	79.937	2.2	0.14
Sysmex XS series	227	97.124	3.1	0.25
Mindray BC 5100/5180/5300/5380/5390	170	97.698	2.6	0.24
Mindray BC 5000/5150/5140/5130/5120	137	97.282	2.5	0.25
Mindray BC 10/20/30	126	94.648	2.0	0.22
Beckman Coulter DxH 500 Series	124	92.425	1.9	0.20
ABX Micros/Minos/ABC VET	119	90.138	3.0	0.31
Horiba Yumizen H500/ 550	116	87.798	2.3	0.24
Sysmex XT series	115	96.665	3.5	0.40
Sysmex KX 21	96	89.810	3.2	0.36
Nihon Kohden Celltac E/Es	97	95.103	2.6	0.32
Horiba ABX Pentra 60/80/XLR	84	87.622	1.9	0.23
Boule Medonic/ Swelab 3-part diff	82	91.097	2.8	0.35

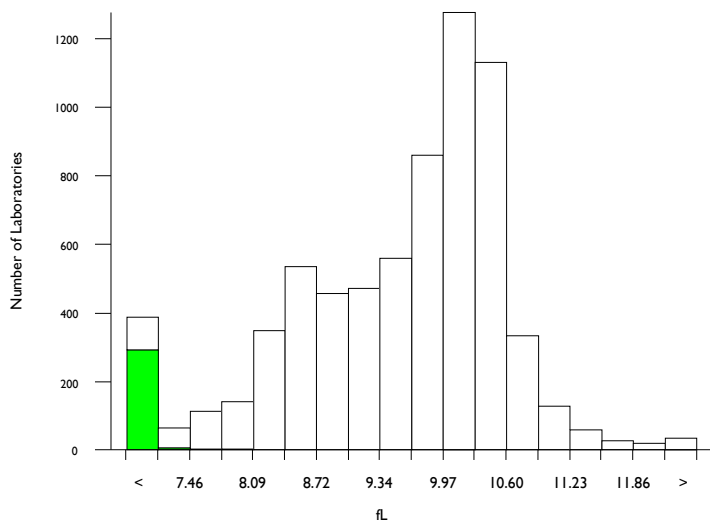


# Mean Platelet Volume, fL

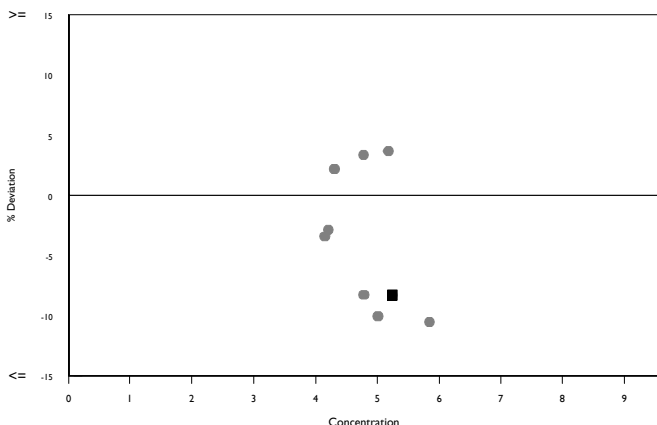
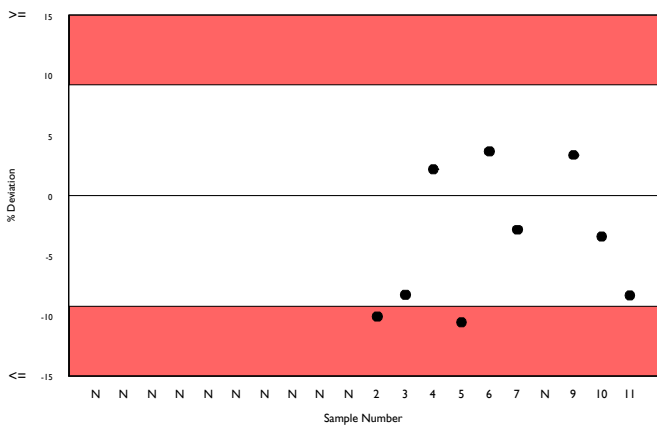
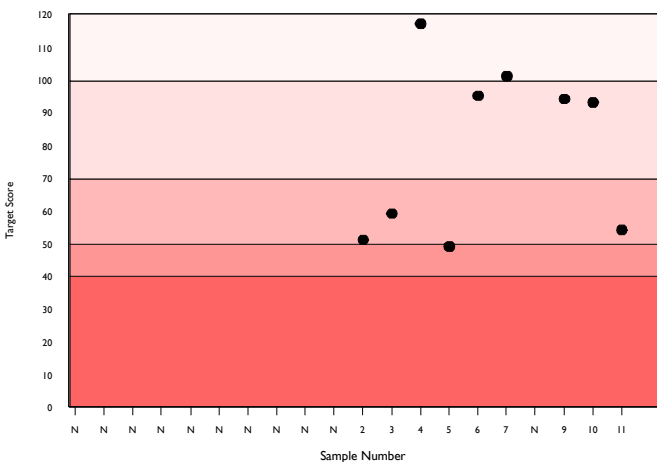
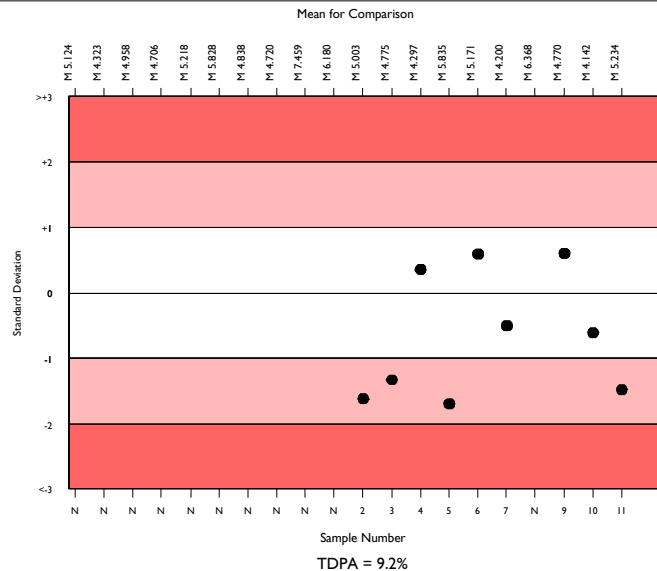
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	6435	9.664	8.7	0.01	0.54	498
Abbott Cell-Dyn Ruby	277	5.234	9.4	0.04	0.29	27

▲ Your Result	4.800	SDI	-1.48
		RMSDI	Too Few
■ Mean for Comparison	5.234	TS	54
		RMTS	Too Few
		%DEV	-8.3
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	9.20%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1611	10.131	2.5	0.01
Sysmex XN-L Series (330/350/450/550)	488	10.219	2.9	0.02
Mindray BC-6000/6200/6600/6800/6800Plus	389	10.379	4.5	0.03
Beckman Coulter DxH 600/800/900 Series	295	8.626	3.1	0.02
Sysmex XP Series	276	9.369	3.6	0.03
Abbott Cell-Dyn Ruby	277	5.234	9.4	0.04
Mindray BC 1000/2000/3000 series	270	9.109	6.9	0.05
Nihon Kohden Celltac Alpha/plus	240	8.501	5.5	0.04
Sysmex XS series	191	9.980	2.9	0.03
Siemens/Bayer Advia 120/2120	185	10.901	5.2	0.05
Mindray BC 5000/5150/5140/5130/5120	123	10.270	2.6	0.03
Mindray BC 5100/5180/5300/5380	114	9.017	3.3	0.03
Horiba Yumizen H500/ 550	108	10.137	4.6	0.06
Mindray BC 10/20/30	107	10.017	3.4	0.04
Beckman Coulter DxH 500 Series	109	9.176	4.8	0.05
Sysmex XT series	103	9.737	4.0	0.05
ABX Micros/Minos/ABC VET	91	8.386	4.9	0.05
Sysmex KX 21	80	9.101	3.5	0.04
Nihon Kohden Celltac E/Es	75	7.528	4.1	0.04
Horiba ABX Pentra 60/80/XLR	74	9.337	3.9	0.05
Boule Medonic/ Swelab 3-part diff	71	9.142	4.9	0.07

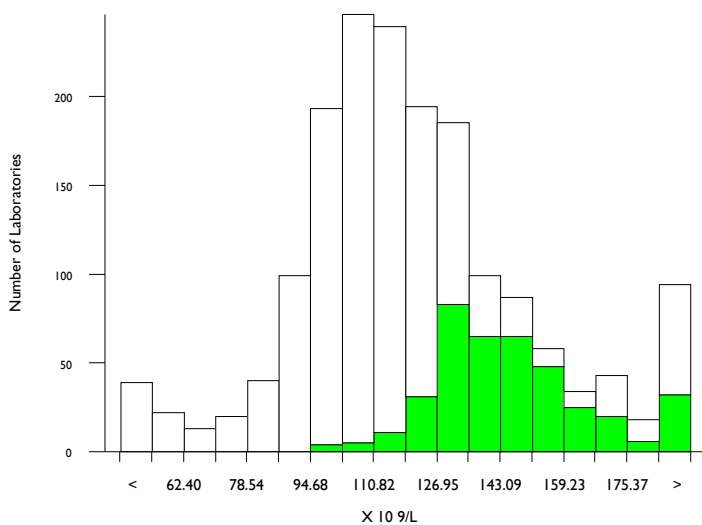


# Platelets (Optical Count), X 10<sup>9</sup>/L

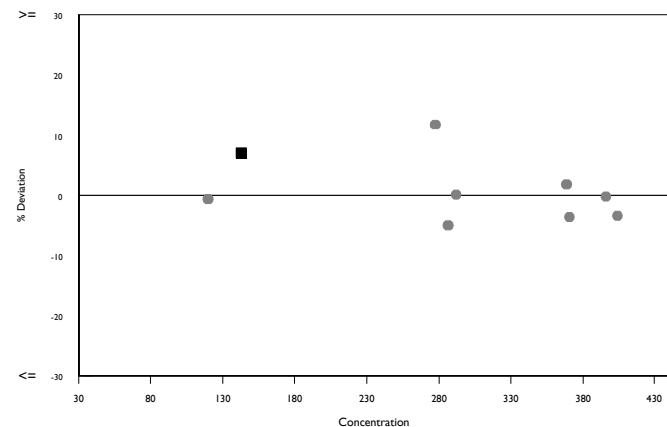
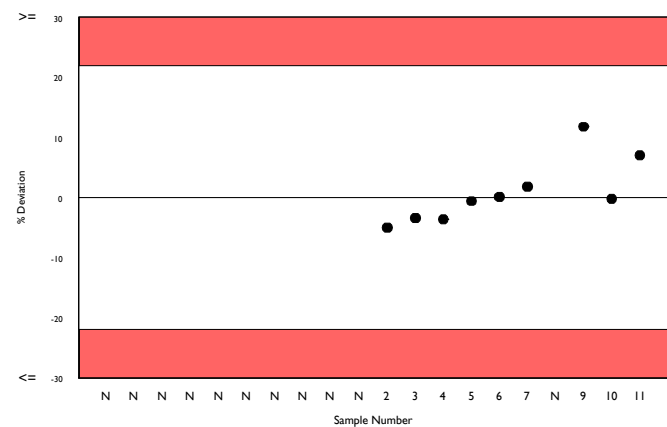
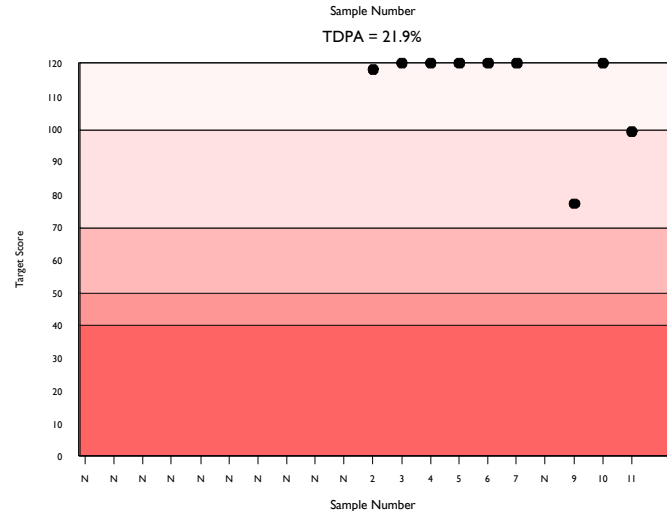
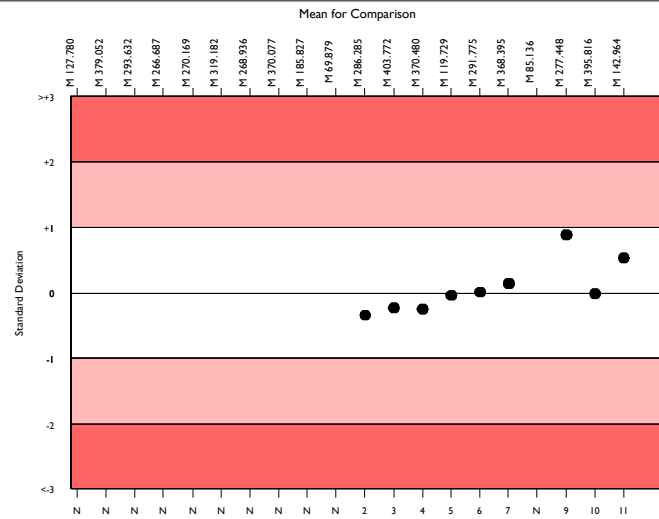
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1546	118.890	18.1	0.68	15.83	180
Abbott Cell-Dyn Ruby	357	142.964	10.5	0.99	19.03	39

▲ Your Result	153.000	SDI	0.53
		RMSDI	Too Few
■ Mean for Comparison	142.964	TS	99
		RMST	Too Few
		%DEV	7.0
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	21.90%



Method	N	Mean	CV%	U <sub>m</sub>
Abbott Cell-Dyn Ruby	357	142.964	10.5	0.99
Manual Methods	328	107.433	20.2	1.50
Siemens/Bayer Advia 120/2120	249	98.383	9.4	0.73
Sysmex XN Series PLT-O	161	130.343	29.6	3.80
Mindray BC-6000/6200/6600/6800/6800Plus	72	117.069	8.9	1.54
Abbott Alinity hq	75	124.053	7.4	1.33
Sysmex XN-L Series (330/350/450/550)	63	105.746	6.8	1.13
Sysmex XS Series	49	109.000	7.0	1.36
Beckman Coulter DxH 600/800/900 Series	26	116.507	4.3	1.24
Sysmex XT Series	22	110.403	8.5	2.49
Abbott Cell-Dyn 3200	22	120.593	11.9	3.83
Horiba Yumizen H500/ 550	14	118.571	5.5	2.16
Sysmex XN Series PLT-F	12	103.000	5.3	1.95
Abbott Cell-Dyn Sapphire	10	137.800	3.7	2.00
Sysmex KX21	10	114.900	7.2	3.29
Beckman Coulter DxH 500 Series	8	129.538	3.9	2.23
Mindray BC-700 series	9	123.778	8.6	4.43
UDIHEM-D	8	119.625	15.0	7.93
Horiba ABX Pentra 60/80/XLR	8	113.500	10.4	5.22
ABX Micros/Minos/ABC VET	6	128.833	18.0	11.84
Horiba Yumizen HI500/ 2500	6	129.833	8.7	5.77



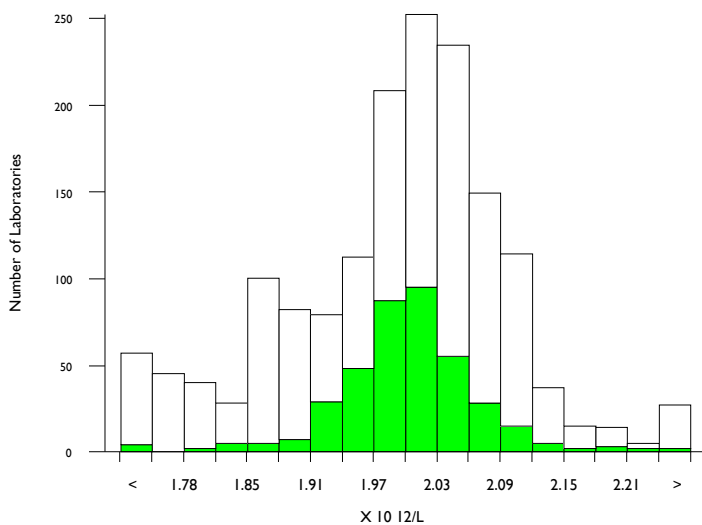


# RBC (Optical Count), X 10<sup>12</sup>/L

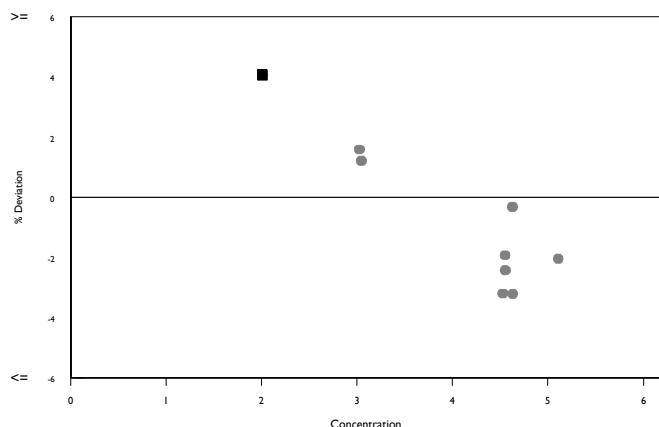
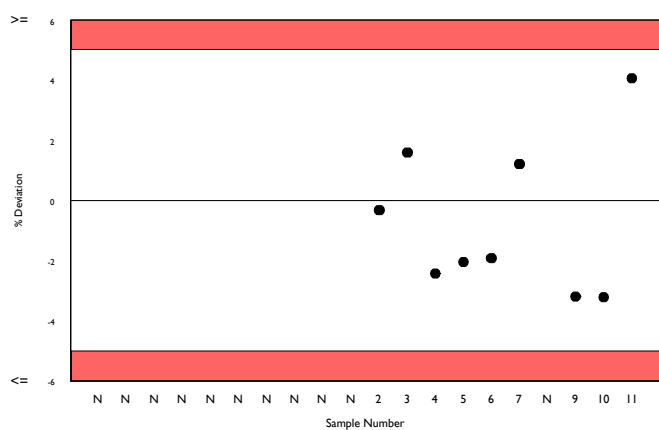
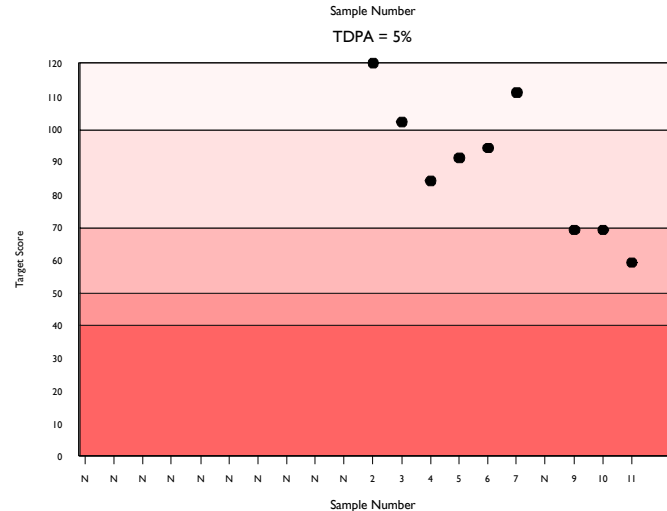
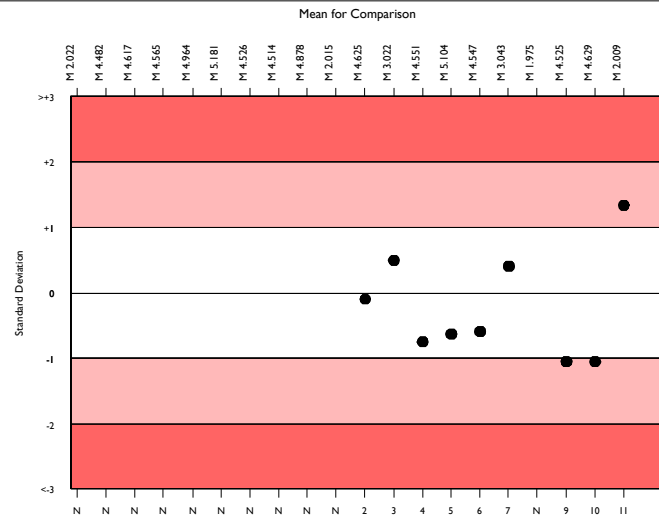
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	1455	2.003	4.0	0.00	0.06	145
Abbott Cell-Dyn Ruby	364	2.009	2.4	0.00	0.06	31

▲ Your Result	2.090	SDI	1.33
		RMSDI	Too Few
■ Mean for Comparison	2.009	TS	59
		RMTS	Too Few
		%DEV	4.1
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	5.00%



Method	N	Mean	CV%	U <sub>m</sub>
Abbott Cell-Dyn Ruby	364	2.009	2.4	0.00
Manual Methods	287	1.867	4.1	0.01
Siemens/Bayer Advia 120/2120	241	2.061	2.0	0.00
Sysmex XN Series	213	2.018	2.5	0.00
Abbott Alinity iq	73	1.938	2.3	0.01
Mindray BC-6000/6200/6600/6800/6800Plus	55	2.069	2.5	0.01
Sysmex XS Series	47	2.034	1.7	0.01
Beckman Coulter DxH 600/800/900 Series	27	2.024	1.2	0.01
Abbott Cell-Dyn 3200	24	2.048	2.8	0.01
Sysmex XT Series	21	2.080	2.2	0.01
Horiba Yumizen H500/ 550	17	2.021	1.5	0.01
Sysmex KX21	11	2.083	2.3	0.02
Abbott Cell-Dyn Sapphire	9	2.087	2.2	0.02
Beckman Coulter DxH 500 Series	10	2.073	1.7	0.01
Horiba ABX Pentra 60/80/XLR	8	2.014	2.0	0.02
UDIHEM-D	8	2.146	2.9	0.03
ABX Micros/Minos/ABC VET	4	2.068	4.4	0.06
ABX Pentra 120/Nexus Series	5	2.082	3.5	0.04
Avantor Benespha H-51	3	2.117	1.2	0.02
Shenzhen Dymind DH615	2	2.045	1.7	0.03
Edan H90/H90 Vet	2	2.090	0.7	0.01

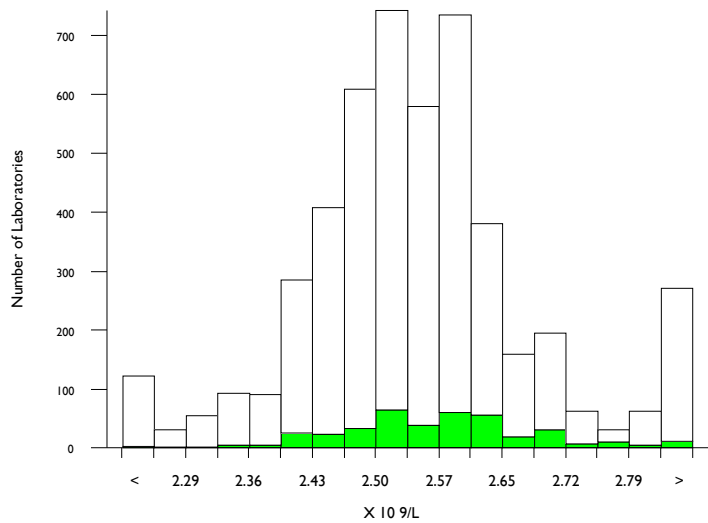


# WBC (Optical Count), X 10<sup>9</sup>/L

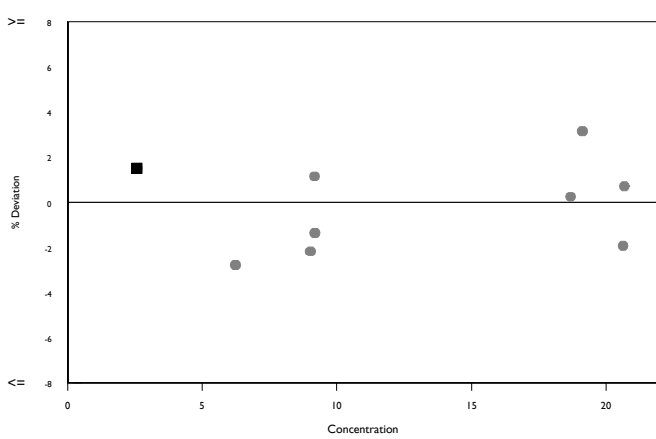
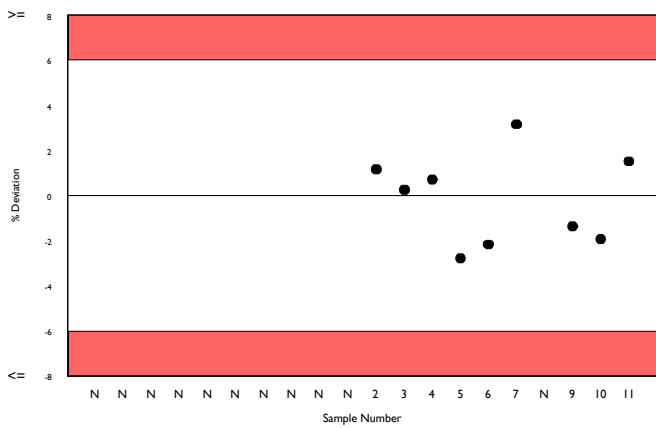
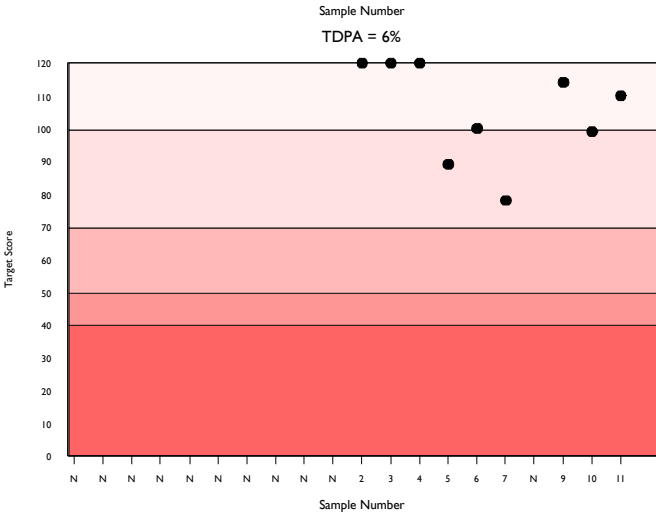
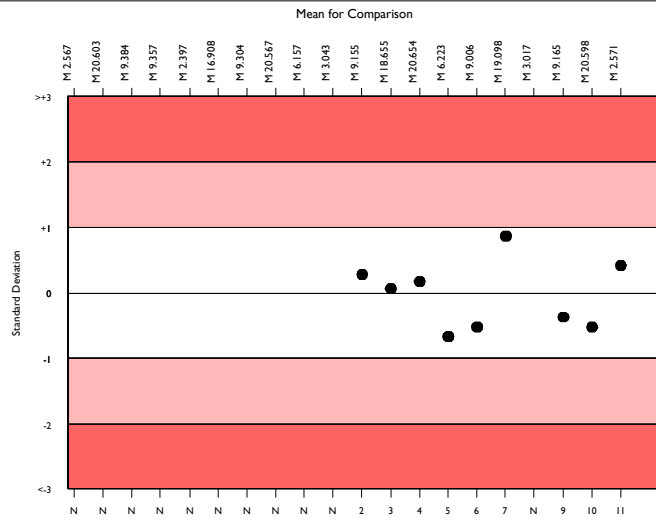
	N	Mean	CV%	U <sub>m</sub>	SDPA	Exc.
All Methods	4499	2.543	3.8	0.00	0.09	409
Abbott Cell-Dyn Ruby	368	2.571	3.5	0.01	0.09	28

▲ Your Result	2.610	SDI	0.41
		RMSDI	Too Few
■ Mean for Comparison	2.571	TS	110
		RMTS	Too Few
		%DEV	1.5
		RM%DEV	Too Few

Acceptable limits derived from Biological Variation	N/A
Acceptable limits of performance for RIQAS	6.00%



Method	N	Mean	CV%	U <sub>m</sub>
Sysmex XN Series	1784	2.542	2.5	0.00
Sysmex XN-L Series (330/350/450/550)	441	2.567	2.7	0.00
Mindray BC-6000/6200/6600/6800/6800Plus	417	2.487	2.8	0.00
Manual methods	389	2.776	8.7	0.02
Abbott Cell-Dyn Ruby	368	2.571	3.5	0.01
Siemens/Bayer Advia 120/2120	251	2.420	3.5	0.01
Sysmex XS Series	227	2.571	2.8	0.01
Mindray BC 5000/5150/5140/5130/5120	127	2.548	2.7	0.01
Sysmex XT Series	110	2.518	3.6	0.01
Abbott Alinity iq	73	2.503	2.4	0.01
Mindray BC 5600/5800	51	2.616	4.6	0.02
Mindray BC-700 series	43	2.581	3.6	0.02
Beckman Coulter DxH 600/800/900 Series	40	2.591	2.8	0.01
Abbott Cell-Dyn 3200	23	2.621	5.2	0.04
Horiba Yumizen H500/ 550	19	2.510	4.0	0.03
Beckman Coulter DxH 500 Series	18	2.632	3.3	0.03
Sysmex KX2I	15	2.523	5.3	0.04
Horiba ABX Pentra 60/80/XLR	15	2.595	4.4	0.04
Abbott Cell-Dyn Sapphire	12	2.588	4.7	0.04
Shenzhen Dymind DF50/DF52/DF55	10	2.625	2.5	0.03
UDIHEM-D	8	2.536	5.1	0.06



Analyte	Mean for Comparison	Your Result	SDI	RMSDI	%DEV	RM%DEV	TS	RMTS	Performance
Haemoglobin	6.072	6.160	0.64	Too Few	1.4	Too Few	91	Too Few	
Haematocrit (HCT)	15.830	16.400	0.86	Too Few	3.6	Too Few	86	Too Few	
MCH	30.200	29.500	-0.57	Too Few	-2.3	Too Few	105	Too Few	
MCHC	38.296	37.600	-0.43	Too Few	-1.8	Too Few	115	Too Few	
MCV	78.904	78.300	-0.18	Too Few	-0.8	Too Few	120	Too Few	
Mean Platelet Volume	5.234	4.800	-1.48	Too Few	-8.3	Too Few	54	Too Few	
Platelets (Optical Count)	142.964	153.000	0.53	Too Few	7.0	Too Few	99	Too Few	
RBC (Optical Count)	2.009	2.090	1.33	Too Few	4.1	Too Few	59	Too Few	
WBC (Optical Count)	2.571	2.610	0.41	Too Few	1.5	Too Few	110	Too Few	

ORMSDI N/A

ORM%DEV N/A

ORMTS N/A

END OF REPORT