



**Beckman Coulter India Pvt. Ltd.**  
Regional Office:

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March , 21<sup>th</sup>, 2020

### Calibration Certificate

Name of the customer	MORRIS MATHIAS HOSPITAL LABORATORY KP ROAD NAGERCOIL
Make	Beckman Coulter India Pvt Ltd.
Product Name	DxH800 – Hematology Analyzer
Serial No	RBD02107

This is to certify that the cell counter installed at the above Mentioned customer site has been calibrated with calibrator (Lot no: 113161470, Expiry – March, 21<sup>th</sup>, 2020)

SL No	Procedures	Parameter	Remarks
1	Startup	WBC/RBC/HGB/PLT	PASS
2	Reproducibility	WBC/RBC/HGB/MCV/RDW/PLT/MPV	PASS
3	Carryover	WBC/RBC/HGB/PLT	PASS
4	QC Trilevel	WBC/RBC/HGB/MCV/HCT/PLT	PASS
5	Calibration cal (Lot No 4736)	WBC/RBC/HGB/MCV/PLT/MPV	PASS

<b>Date of Calibration : 21/03/2020</b>	<b>Due date for Calibration: 20/03/2021</b>
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**For Beckman Coulter India Private Limited**

Mr. Ashok Kumar  
Territory Customer Service Engineer

**Beckman Coulter India Pvt. Ltd.**

Registered Office: Unit Nos.TF-B-07(A) to 15, Third Floor, B Wing, Art Guild House, Phoenix Market City, LBS Road,  
Kurla (West), Mumbai - 400 070. Tel: +91 22 3080 5000 Fax: +91 22 3080 5060  
CIN : U33119MH2005PTC157177 www.beckmancoulter.com

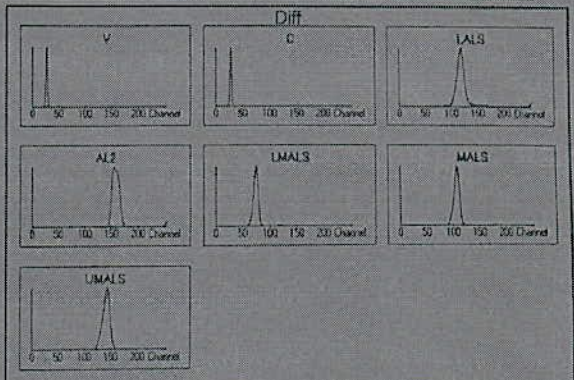
Daily Checks Summary Report

Instrument Name:	DXH1	
Operator:	SvcAdmin	
Procedure Type:	Daily Checks	
Summary	03/12/2020 11:55:48 AM	
Daily Checks Status	PASS	
Last Shutdown Date/Time	03/11/2020 07:43:27 PM	
System	PASS	
Background	PASS	
Supplies	PASS	
Performed By	SvcAdmin	
CBC	PASS	
DIFF	PASS	
Reviewed By		
RETIC	PASS	
NRBC	PASS	

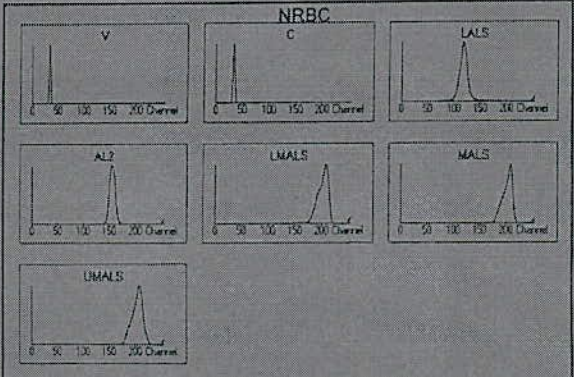
QC Run Detail Report

Lot Number: 103155880 Exp. Date: 11/29/2020 LIS Status: Not Sent  
 Source: BCI Instrument: DxH1 Shift: 1  
 Control Type: COULTER® LATRON™ Tube Pos ID: 00003 System Messages: Cover Opened  
 Level: Control Run Date/Time: 03/12/2020 11:44:39 AM  
 Excluded: No Presented By: SYSTEM  
 Presentation: Cassette Reviewed By: SvcAdmin  
 Review Date/Time: 03/12/2020 11:50 AM

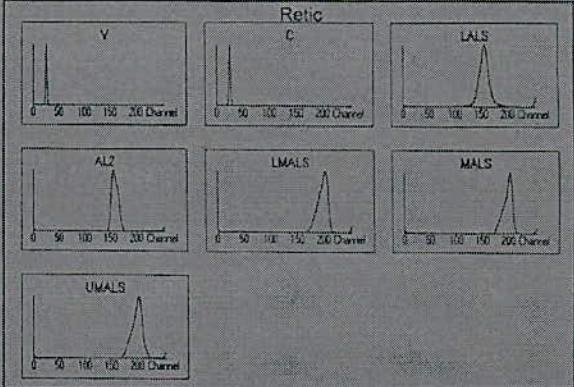
Test	Result	Flags	Target	Limit
D (V)	26.80		26.80	2.00
D %CV (V)	2.59			7.00
D (C)	27.35		28.00	2.00
D %CV (C)	4.14			10.00
D (LALS)	119.25		119.00	9.00
D %CV (LALS)	6.31			13.00
D (AL2)	155.75		156.00	9.00
D %CV (AL2)	3.26			9.00
D (LMALS)	75.00		75.00	6.00
D %CV (LMALS)	4.41			9.00
D (MALS)	109.00		109.00	6.00
D %CV (MALS)	4.07			9.00
D (UMALS)	144.00		144.00	8.00
D %CV (UMALS)	4.55			9.00



Test	Result	Flags	Target	Limit
N (V)	34.34		34.40	2.50
N %CV (V)	2.74			7.00
N (C)	33.50		34.40	2.50
N %CV (C)	4.13			10.00
N (LALS)	119.00		119.00	9.00
N %CV (LALS)	6.44			13.00
N (AL2)	156.25		156.00	9.00
N %CV (AL2)	2.73			9.00
N (LMALS)	209.25		209.00	11.00
N %CV (LMALS)	4.38			9.00
N (MALS)	209.50		209.00	11.00
N %CV (MALS)	4.16			9.00
N (UMALS)	209.25		209.00	11.00
N %CV (UMALS)	4.69			9.00



Test	Result	Flags	Target	Limit
R (V)	25.90		25.90	2.00
R %CV (V)	2.66			7.00
R (C)	24.59		25.20	2.00
R %CV (C)	4.19			10.00
R (LALS)	157.25		158.00	12.00
R %CV (LALS)	6.36			13.00
R (AL2)	156.75		156.00	9.00
R %CV (AL2)	3.20			9.00
R (LMALS)	204.25		204.00	10.00



Comments:  
 INF/DAT Filename:  
 2020-03-12T11-44-39\_103155880\_00003\_14

QC Run Detail Report

Lot Number:	103155880	Exp. Date:	11/29/2020	LIS Status:	Not Sent
Source:	BCI	Instrument:	DXH1	Shift:	1
Control Type:	COULTER® LATRON™	Tube Pos ID:	00003	System Messages: Cover Opened	
Level:	Control	Run Date/Time:	03/12/2020 11:44:39 AM		
Excluded:	No	Presented By:	SYSTEM		
Presentation:	Cassette	Reviewed By:	SvcAdmin		
		Review Date/Time:	03/12/2020 11:50 AM		
Test	Result	Flags	Target	Limit	
R %CV (LMALS)	4.37		204.00	9.00	
R (MALS)	204.25		204.00	10.00	
R %CV (MALS)	4.18			9.00	
R (UMALS)	204.25		204.00	10.00	
R %CV (UMALS)	4.74			9.00	

Panel: CBC  
 Presentation: CASSETTE  
 Procedure State: Carryover Status: Completed Passed  
 Instrument Date/Time: DxH1 03/12/2020 12:25 PM  
 Performed By: SvcAdmin

Date	Time	WBC	RBC	HGB	PLT	DIFF	NRBC	RETIC
Whole Blood 1	03/12/2020 12:21 PM	5.029	3.847	10.03	358.1			
Whole Blood 2	03/12/2020 12:21 PM	4.988	3.763	9.94	363.2			
Whole Blood 3	03/12/2020 12:22 PM	5.058	3.819	9.97	362.5			
Diluent 1	03/12/2020 12:23 PM	0.009	0.002	0.04	1.6			
Diluent 2	03/12/2020 12:24 PM	0.005	0.000	0.03	0.4			
Diluent 3	03/12/2020 12:25 PM	0.003	0.000	0.02	0.7			

Summary Statistics:

Carryover Results	WBC	RBC	HGB	PLT	DIFF	NRBC	RETIC
Pass/Fail	0.11%	0.04%	0.21%	0.25%			
	PASS	PASS	PASS	PASS			

Repeatability Summary Report

Instrument: DxH11  
 Presentation: CASSETTE  
 Procedure State: Active  
 Finished by: [Blank]  
 Date/Time: [Blank]  
 Panel: CBC

Ex	Date	Time	WBC	RBC	HGB	MCV	RDW	RDW-SD	PLT	MPV
N	03/12/2020	12:34 PM	6.306	3.695	9.41	78.24	17.33	48.56	183.9	8.23
N	03/12/2020	12:33 PM	6.268	3.724	9.49	78.26	17.21	48.13	182.3	7.79
N	03/12/2020	12:32 PM	6.186	3.720	9.42	77.97	17.24	48.13	182.7	8.10
N	03/12/2020	12:31 PM	6.186	3.715	9.45	78.32	17.34	48.56	187.1	8.16
N	03/12/2020	12:31 PM	6.129	3.728	9.40	78.18	16.96	47.25	183.2	8.09
N	03/12/2020	12:30 PM	6.228	3.720	9.44	78.54	17.14	48.13	185.8	8.26
N	03/12/2020	12:29 PM	6.202	3.710	9.41	78.47	17.06	47.69	183.4	8.07
N	03/12/2020	12:29 PM	6.212	3.768	9.49	78.52	17.44	49.00	177.3	8.05
N	03/12/2020	12:28 PM	6.304	3.683	9.42	78.75	17.26	48.13	180.0	8.26
N	03/12/2020	12:27 PM	6.245	3.764	9.44	78.07	17.28	48.56	179.7	8.10

Summary Statistics:

	N	WBC	RBC	HGB	MCV	RDW	RDW-SD	PLT	MPV
Mean	10	6.226	3.723	9.44	78.33	17.23	48.21	182.5	8.11
2SD		0.110	0.053	0.06	0.47	0.28	0.99	5.9	0.27
%CV		0.88	0.72	0.33	0.30	0.82	1.03	1.61	1.69
Minimum		6.129	3.683	9.40	77.97	16.96	47.25	177.3	7.79
Maximum		6.306	3.768	9.49	78.75	17.44	49.00	187.1	8.26
Diff		0.177	0.085	0.09	0.77	0.48	1.75	9.9	0.47

CBC Calibration Summary Report

Instrument: DxH1  
 Lot Number: 113161470  
 Expiration Date: 03/21/2020  
 Calibrator Type: BCI Control  
 Presentation: CASSETTE  
 Number of runs: 10  
 Procedure State: Active  
 Finished by:  
 Date/Time:

Ex.	Date	Time	WBC	RBC	HGB	MCV	PLT	MPV
No	03/12/2020	12:51 PM	8.487	4.285	12.14	86.55	220.7	10.60
No	03/12/2020	12:50 PM	8.886	4.220	12.21	86.15	213.0	10.50
No	03/12/2020	12:49 PM	8.713	4.242	12.15	86.35	223.6	10.52
No	03/12/2020	12:48 PM	8.871	4.287	12.24	86.43	217.8	10.56
No	03/12/2020	12:48 PM	8.692	4.295	12.19	86.31	212.8	10.85
No	03/12/2020	12:47 PM	8.660	4.291	12.17	86.55	221.6	10.45
No	03/12/2020	12:47 PM	8.776	4.278	12.10	86.53	218.9	10.50
No	03/12/2020	12:46 PM	8.863	4.291	12.13	86.62	218.2	10.57
No	03/12/2020	12:46 PM	8.707	4.283	12.13	86.34	222.3	10.65
No	03/12/2020	12:45 PM	8.728	4.277	12.13	86.33	221.4	10.56

Summary Statistics:

Mean	Reference	%CV	Factor % Diff	Difference	In use Cal Factor	New Cal Factor	Calibration Recommended	Instrument Calibrated
8.738	8.600	1.37	-1.58	0.138	1.154	1.135	R	
4.275	4.100	0.57	-4.08	0.175	1.119	1.073	R	
12.16	12.00	0.35	-1.31	0.16	0.989	0.976	R	
86.42	86.80	0.17	0.44	0.38	0.960	0.964	NN	
219.0	213.0	1.70	-2.76	6.0	1.051	1.022	R	
10.56	10.50	0.64	-0.53	0.06	0.956	0.951	NN	

CBC Calibration Summary Report

Instrument:	DxH1	Presentation:	CASSETTE
Lot Number:	113161470	Number of runs:	10
Expiration Date:	03/21/2020	Procedure State:	Finished
Calibrator Type:	BCI Control	Finished by:	SvcAdmin
		Date/Time:	03/12/2020 12:51 PM

Ex.	Date	Time	WBC	RBC	HGB	MCV	PLT	MPV
No	03/12/2020	12:51 PM	8.487	4.285	12.14	86.55	220.7	10.60
No	03/12/2020	12:50 PM	8.885	4.220	12.21	86.15	213.0	10.50
No	03/12/2020	12:49 PM	8.713	4.242	12.15	86.35	223.6	10.52
No	03/12/2020	12:49 PM	8.871	4.287	12.24	86.43	217.9	10.56
No	03/12/2020	12:48 PM	8.692	4.295	12.19	86.31	212.8	10.65
No	03/12/2020	12:47 PM	8.660	4.291	12.17	86.55	221.6	10.45
No	03/12/2020	12:47 PM	8.776	4.278	12.10	86.53	218.9	10.50
No	03/12/2020	12:46 PM	8.863	4.291	12.13	86.62	218.2	10.57
No	03/12/2020	12:46 PM	8.707	4.283	12.13	86.34	222.3	10.65
No	03/12/2020	12:45 PM	8.728	4.277	12.13	86.33	221.4	10.56

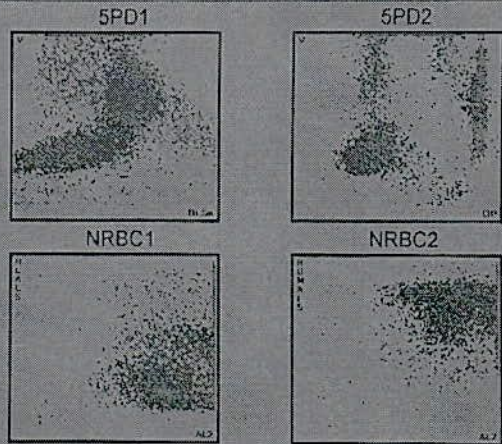
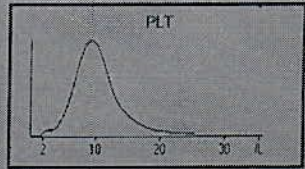
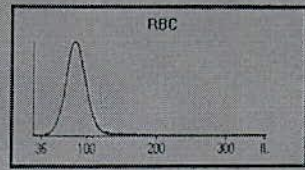
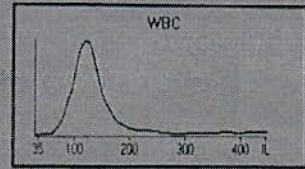
Summary Statistics:			WBC	RBC	HGB	MCV	PLT	MPV
	Mean		8.738	4.275	12.16	86.42	219.0	10.56
	Reference		8.600	4.100	12.00	86.80	213.0	10.50
	%CV		1.37	0.57	0.35	0.17	1.70	0.64
	Factor % Diff		-1.58	-4.09	-1.31	0.44	-2.76	-0.53
	Difference		0.138	0.175	0.16	0.38	6.0	0.06
	In use Cal Factor		1.154	1.119	0.989	0.960	1.051	0.956
	New Cal Factor		1.135	1.073	0.976	0.964	1.022	0.951
	Calibration Recommended		R	R	R	NN	R	NN
	Instrument Calibrated		CALIBRATEC	CALIBRATEC	CALIBRATEC	PASS	CALIBRATEC	PASS



QC Run Detail Report

Lot Number: 123173020	Exp Date: 03/21/2020	LIS Status: Not Sent
Source: BCI	Instrument: DxH1	Shift: 1
Control Type: COULTER® 6C Cell	Tube Pos ID: 00001	System Messages:
Level: Level 1	Run Date/Time: 03/12/2020 12:56:13 PM	
Excluded: No	Presented By: SYSTEM	
Presentation: Cassette	Reviewed By: SvcAdmin	
	Review Date/Time: 03/12/2020 12:56 PM	

Test	Result	Flags	Units	Upper Limit	Lower Limit
WBC	3.3		10 <sup>3</sup> /µL	4.0	2.8
RBC	1.87		10 <sup>6</sup> /µL	1.94	1.72
HGB	5.0		g/dL	5.2	4.6
HCT	15.3		%	16.6	13.6
MCV	81.8		fL	87.3	77.3
MCH	26.6		pg	29.4	24.2
MCHC	32.5		g/dL	37.0	28.0
RDW	17.2		%	19.8	14.8
RDW-SD	52.1		fL	61.0	39.0
PLT	75		10 <sup>3</sup> /µL	87	57
MPV	10.0		fL	12.0	8.0
NE	44.0		%	49.3	39.3
LY	43.9		%	49.6	37.6
MO	8.4		%	11.2	5.2
EO	3.6		%	6.9	0.9
BA	0.1		%	0.5	0.0
NE#	1.5		10 <sup>3</sup> /µL	2.3	0.7
LY#	1.5		10 <sup>3</sup> /µL	2.3	0.7
MO#	0.3		10 <sup>3</sup> /µL	0.6	0.0
EO#	0.1		10 <sup>3</sup> /µL	0.6	0.0
BA#	0.0		10 <sup>3</sup> /µL	0.1	0.0
NRBC	0.3		/100WBC	1.8	0.0
NRBC#	0.01		10 <sup>3</sup> /µL	0.06	0.00

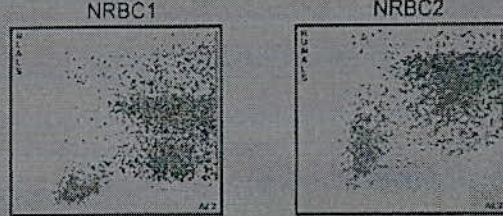
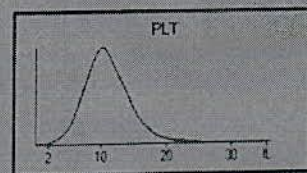
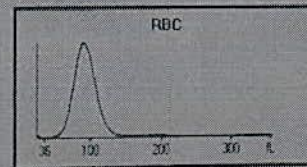
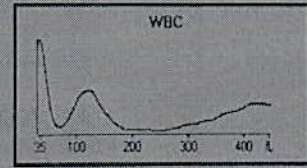


Comments: INF/DAT Filename: 2020-03-12T12-56-13\_123173020\_00001\_54

QC Run Detail Report

Lot Number: 133183020	Exp. Date: 03/21/2020	LIS Status: Not Sent
Source: BCI	Instrument: DxH1	Shift: 1
Control Type: COULTER® 6C Cell	Tube Pos ID: 00002	System Messages:
Level: Level 2	Run Date/Time: 03/12/2020 12:56:48 PM	
Excluded: No	Presented By: SYSTEM	
Presentation: Cassette	Reviewed By: SvcAdmin	
	Review Date/Time: 03/12/2020 12:57 PM	

Test	Result	Flags	Units	Upper Limit	Lower Limit
WBC	20.8		10 <sup>3</sup> /uL	22.4	19.8
RBC	3.98		10 <sup>6</sup> /uL	4.13	3.83
HGB	11.7		g/dL	12.3	11.1
HCT	35.0		%	36.9	33.1
MCV	88.0		fL	92.4	83.4
MCH	29.5		pg	31.0	27.8
MCHC	33.5		g/dL	35.6	31.2
RDW	16.2		%	18.3	13.3
RDW-SD	52.9		fL	61.4	39.4
PLT	423		10 <sup>3</sup> /uL	475	385
MPV	10.6		fL	12.3	8.3
NE	64.5		%	69.4	59.4
LY	14.6		%	19.4	9.4
MO	15.9		%	18.8	12.8
EO	4.9		%	8.3	2.3
BA	0.1		%	0.6	0.0
NE#	13.4		10 <sup>3</sup> /uL	17.7	9.7
LY#	3.0		10 <sup>3</sup> /uL	5.5	0.5
MO#	3.3		10 <sup>3</sup> /uL	5.3	1.3
EO#	1.0		10 <sup>3</sup> /uL	3.1	0.0
BA#	0.0		10 <sup>3</sup> /uL	0.1	0.0
NRBC	8.3		/100WBC	10.8	6.8
NRBC#	1.73		10 <sup>3</sup> /uL	2.20	1.60

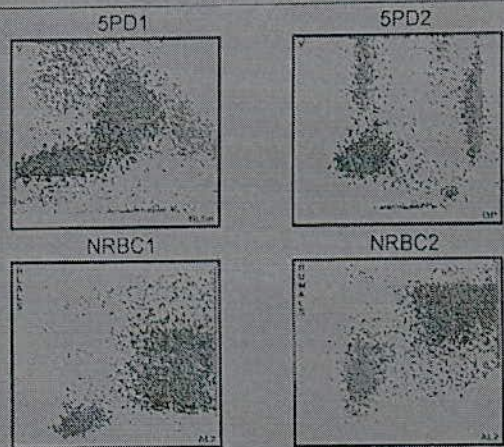
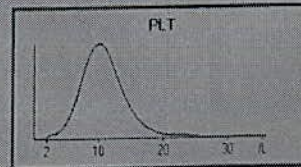
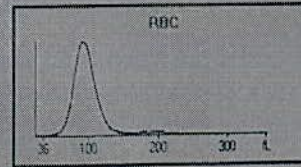
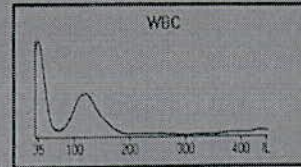


Comments: INF/DAT Filename: 2020-03-12T12:56:48\_133183020\_00002\_55

QC Run Detail Report

Lot Number: 143193020	Exp. Date: 03/22/2020	LIS Status: Not Sent
Source: BCI	Instrument: DxH1	Shift: 1
Control Type: COULTER® 6C Cell	Tube Pos ID: 00003	System Messages:
Level: Level 3	Run Date/Time: 03/12/2020 12:57:48 PM	
Excluded: No	Presented By: SYSTEM	
Presentation: Cassette	Reviewed By: SvcAdmin	
	Review Date/Time: 03/12/2020 12:58 PM	

Test	Result	Flags	Units	Upper Limit	Lower Limit
WBC	9.1		10 <sup>3</sup> /uL	9.6	8.2
RBC	5.31		10 <sup>6</sup> /uL	5.56	5.10
HGB	15.7		g/dL	16.4	15.0
HCT	47.8		%	51.0	44.0
MCV	90.0		fL	93.6	84.6
MCH	29.6		pg	31.3	27.7
MCHC	32.9		g/dL	36.0	30.2
RDW	15.8		%	17.4	12.4
RDW-SD	52.9		fL	59.7	37.7
PLT	219		10 <sup>3</sup> /uL	246	196
MPV	10.4		fL	11.9	7.9
NE	54.9		%	61.2	51.2
LY	27.8		%	32.1	22.1
MO	9.9		%	12.8	6.8
EO	7.3		%	10.8	2.8
BA	0.1		%	0.6	0.0
NE#	5.0		10 <sup>3</sup> /uL	7.0	3.0
LY#	2.5		10 <sup>3</sup> /uL	4.0	0.8
MO#	0.9		10 <sup>3</sup> /uL	1.7	0.1
EO#	0.7		10 <sup>3</sup> /uL	2.0	0.0
BA#	0.0		10 <sup>3</sup> /uL	0.1	0.0
NRBC	18.3		/100WBC	21.8	15.8
NRBC#	1.66		10 <sup>3</sup> /uL	2.00	1.40

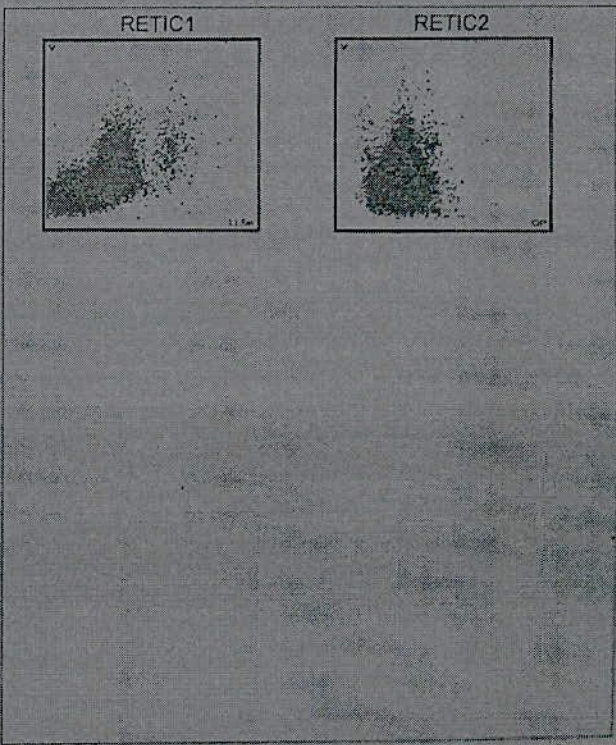
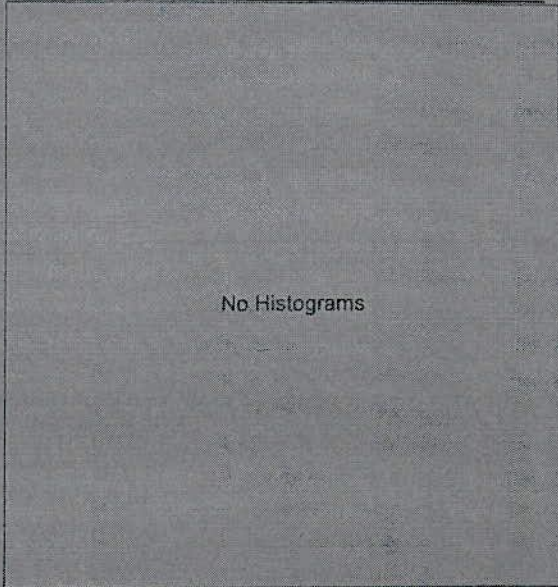


Comments: INF/DAT Filename: 2020-03-12T12-57-48\_143193020\_00003\_56

QC Run Detail Report

Lot Number: 153201670      Exp. Date: 04/18/2020      LIS Status: Not Sent  
Source: BCI      Instrument: DxH1      Shift: 1  
Control Type: COULTER® Retic-X Cell      Tube Pos ID: 00001      System Messages:  
Level: Level 1      Run Date/Time: 03/12/2020 01:02:06 PM  
Excluded: No      Presented By: SYSTEM  
Presentation: Cassette      Reviewed By: SvcAdmin  
Review Date/Time: 03/12/2020 01:02 PM

Test	Result	Flags	Units	Upper Limit	Lower Limit
RET	0.95	*		1.60	0.40
RET#	0.0446		10 <sup>9</sup> /uL	0.0747	0.0187



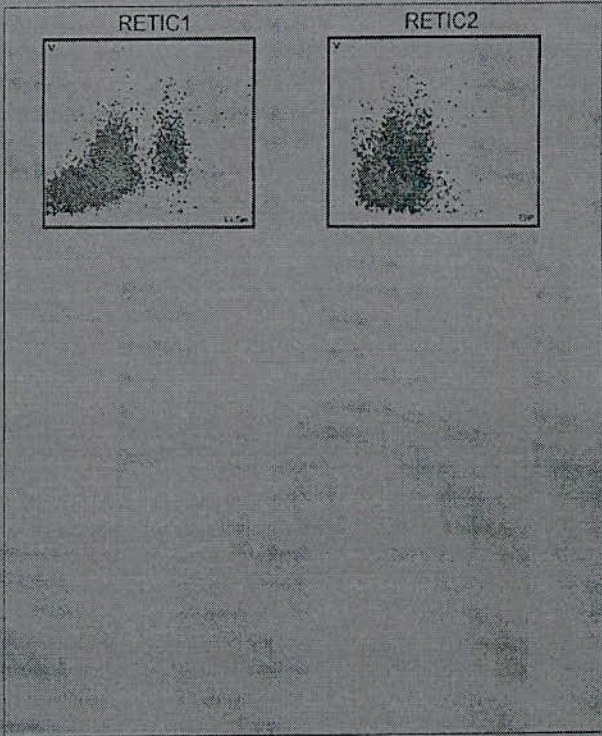
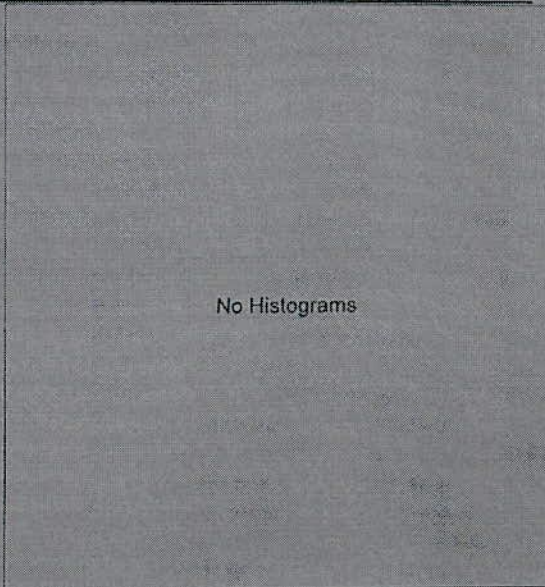
Reference-RBC Count: 4.67

Comments:      INF/DAT Filename:  
2020-03-12T13-02-06\_153201670\_00001\_57

QC Run Detail Report

Lot Number:	163211670	Exp. Date:	04/21/2020	LIS Status:	Not Sent
Source:	BCI	Instrument:	DxH1	Shift:	1
Control Type:	COULTER® Retic-X Cell	Tube Pos ID:	00002	System Messages:	
Level:	Level 2	Run Date/Time:	03/12/2020 01:03:11 PM		
Excluded:	No	Presented By:	SYSTEM		
Presentation:	Cassette	Reviewed By:			
		Review Date/Time:			

Test	Result	Flags	Units	Upper Limit	Lower Limit
RET	2.55		%	3.90	1.50
RET#	0.1198		10 <sup>6</sup> /uL	0.1829	0.0704



Reference RBC Count: 4.69

Comments: INF/DAT Filename:  
2020-03-12T13-03-11\_163211670\_00002\_58

QC Run Detail Report

Lot Number: 173221670	Exp. Date: 04/24/2020	LIS Status: Not Sent
Source: BCI	Instrument: DxH1	Shift: 1
Control Type: COULTER® Retic-X Cell	Tube Pos ID: 00003	System Messages:
Level: Level 3	Run Date/Time: 03/12/2020 01:04:34 PM	
Excluded: No	Presented By: SYSTEM	
Presentation: Cassette	Reviewed By: SvcAdmin	
	Review Date/Time: 03/12/2020 01:04 PM	

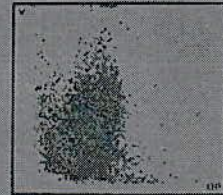
Test	Result	Flags	Units	Upper Limit	Lower Limit
RET	9.64		%	12.60	7.60
RET#	0.4491		10 <sup>9</sup> /L	0.5872	0.3542

No Histograms

RETIC1



RETIC2



Reference RBC Count: 4.66

Comments: INF/DAT Filename:  
2020-03-12T13-04-34\_173221670\_00003\_59

**BECKMAN  
COULTER.**

Beckman Coulter India Pvt. Ltd.

**FIELD SERVICE REPORT**

No. **15857**

Date: **11.03.2020**  
12.03.2020

CUSTOMER NAME: <b>MORRIS MATHIAS HOSPITAL</b>		MODEL: <b>Dxt 800</b>
WARRANTY: <input type="checkbox"/> ACTIVE OWNED <input type="checkbox"/> OTL		SERIAL NO: <b>RBD02107</b>
DEPARTMENT: <b>LAB</b>		INSTANCE NO: <b>71791078</b>
CONTACT PERSON:		SERVICE REQUEST NO. (S.R NO.): <b>32319853</b>
ADDRESS:		TASK NO: <b>110259256</b>
CITY / POSTAL CODE: <b>NAGER COIL</b>	COMPLAINT RECD	DATE
STATE / COUNTRY:	RESPONSE	TIME
MOB.TEL. No.:	COMPLETION	TYPE OF CALL
E-MAIL:	LABOUR HRS	INSTALLATION <input checked="" type="checkbox"/>
	TRAVEL HRS	DE-INSTALLATION
	TOTAL HRS	PM VISIT
		BREAKDOWN
		MODIFICATION
		APPLICATION

PROBLEM REPORTED/ SYMPTOM: **NFW INSTALLATION.**

OBSERVATIONS/ CAUSE:

ACTION TAKEN/ RESOLUTION: **Unpacked the instrument and moved it to lab and verified voltage specifications installed instrument and hardware alignment of MM alignment.**

VERIFICATION OF REPAIR: **Verified instrument with daily checks, carryover, Repeatable, QC calibration, labor, QC QC passed.**

VERIFICATION STATEMENT:  THE CORRECT OPTION

Service activity performed is verified to meet the specified requirements as per established procedures. Results meet published performance specifications.

Verified as per established procedures. Documented Verification in Service Report Debrief Notes.

FOLLOWING PARTS HAVE BEEN REPLACED FROM - BECKMAN COULTER <input type="checkbox"/> OR CUSTOMER STOCK <input type="checkbox"/>						
Sr. No.	PART No.	DESCRIPTION	UNIT PRICE	QTY	TOTAL	NS
1						
2						
3						
4						
(Taxes Extra) TOTAL Rs.						


ADDITIONAL COMMENTS: **Hardware installation completed, Validation and user training**

CF RAISED Y/N IF YES CF TYPE - **Pending**

We approve the above charges.

I certify that the above work has been carried out to my satisfaction.

**G. Ashok Kumar**  
ENGINEERS NAME & SIGNATURE



CHECKED BY

**S. Jayaram**  
CUSTOMER SIGNATURE

Head Office: Unit Nos.TF-B-07(A) to 15 Third Floor, Wing B, Art Guild House, Phoenix Market city, LBS Road, Kurta (West), Mumbai- 400 070  
Telephone: 6838 5000, Fax: 6838 5060/61

**CALIBRATION CERTIFICATE**


This is to certify that the Blood Gas / Electrolytes Analyser

Model : ABL 90 Basic  
Manufacturer : Radiometer, Denmark  
S. No : I393-090R0794N0006  
Equipment Location : Biochemistry Department

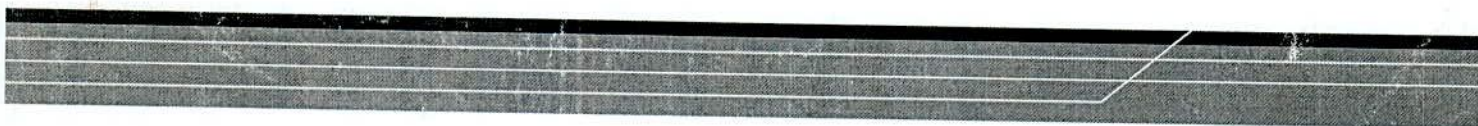
Installed at Morris Mathias Hospital - Nagercoil has been calibrated on 18-June-2020 and found working satisfactorily.

The next calibration is due on 17-June-2021.

For DHR Holding India Pvt Ltd



K. Harikrishnan  
Zonal Service Manager





**CALIBRATION CERTIFICATE**

This is to certify that the Blood Gas Analyser Model ABL90 Basic Bearing Serial No: I393-090R0794N0006 installed in your Biochemistry Department has been calibrated on 18-June-2020.

The calibration values are as follows:

Parameter	Actual Value		Range	Electrode Status
	Status	Value		
PH	Status	52.2 mV	6.790 -7.310	OK
	Sensitivity	96.5%	92-103%	
PCO2	Status	63.7 mV	34.6 – 78.0mmHg	OK
	Sensitivity	85.7%	85-100%	
PO2	Status	-5.6mmHg	171.0 – 146.8 mmHg	OK
	Sensitivity	91%	85-100%	
Na+	Status	237.2 mV	69 – 152 mmol/L	OK
	Sensitivity	95.6%	90-105%	
K+	Status	220 mV	4.1 – 101 mmol/L	OK
	Sensitivity	101.2%	92 -105%	
Ca++	Status	226.8 mV	0.50 – 2.37 mmol/L	OK
	Sensitivity	96.2%	92-103%	
Cl-	Status	-16.9 mV	50 – 93 mmol/L	OK
	Sensitivity	90.4%	85-100%	
Glucose	Sensitivity	274.4 pA/mM	0-178 mg/dl	OK
	Status	327 pA	150 – 2000 pA/mM	
Lactate	Sensitivity	890 pA	0-10.1 mmol/L	OK
	Status	320.6 pA/mM	150 – 2000 pA/mM	

The next calibration due is 17-June-2021.

For DHR Holding India Private Limited.

  
 K. Harikrishnan  
 Zonal Service Manager



# ACCUREX

— Since 1984 —  
Accurex Biomedical Pvt Ltd.

Delivering innovative and trustworthy medical diagnostic solutions for over 30 years.

**Customer Name :** Dr.Morris Mathias Hospital

**Date:**01-12-2020

**Address :** 355, K.P. Road,Dr. Mathias Nager,Nagercoil-629 001.

**Tel No :** 04652 - 279902

**Email :** [morrismathiashospital@gmail.com](mailto:morrismathiashospital@gmail.com)

**Instrument Name:** AT-300D

**Sr.No:** ES1061606A440

**AMC :** Yes

**Comm Date:** 01-12-2020

**Warranty :** Nil

**Comm Date:--**

**Calibration :** 01-12-2020

**Next Cal Due:** 30-11-2021

## Instrument Condition

Room Temperature : 24°C

Power Supply : 230V P/N: 230V N/E: 0.9

## INITIAL CHECK

- |  |     |                                     |    |                          |
|--|-----|-------------------------------------|----|--------------------------|
| • Instrument Initialisting                         | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Display Showing all Characters                   | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Inlet and Outlet valves working while aspirating | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Bellows pump homing                              | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Analyzer Software start up                       | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Lamp Glowing                                     | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Key pad Check                                    | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Aspiration Switch Sensitivity correct            | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |
| • Temperature of Peltier is correct                | Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/> |

# ACCUREX

— Since 1984 —

Delivering innovative and trustworthy medical diagnostic solutions for over 30 years.

Filter Calibration:340nm : 49987 A.D

405nm: 49035 A.D

450nm: 51763 A.D

505nm: 51645 A.D

546nm: 51503 A.D

578nm: 49329 A.D

630nm: 51442 A.D

700nm: 52324 A.D

## Performance Check

Aspiration Tube proper without kinks

Yes  No

Waste Tube

Yes  No

Aspiration during Flush Mode

Yes  No

Blanking during Test

Yes  No

## Quality Control Check

Biorad:C-310-5 Clinical Chemistry Lot:26440

Parameter	Target(Range)	Obtained Value	Status	
			Pass	Fail
Glucose	84.8((71-98.6)	89	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cholestrol	242(218-266)	254	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SGOT	41.9(34.3-49.1)	39.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SGPT	31.2(24.3-38.1)	30.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Creatinine	2.17(1.65-2.68)	1.97	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Protein	6.67(6.11-7.22)	6.73	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Uric Acid	4.83(4.19-5.48)	4.6	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Remark

We Certify this Instrument is working Satisfactory with subsequent to Calibration of the above Parameters and the Next Calibration Due on: 30-11-2021

This Calibration is Valid from 01/12/2020 - 30/11/2021

*Senthil Kumar*

Mr. R. Senthil Kumar,  
South Service Manager,



# CERTIFICATE OF CALIBRATION

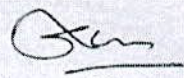
Ref. No.: MMH011  
Applicant: MORRIS MATHIAS HOSPITAL  
Device Calibrated: HAEMOSTASIS ANALYSER  
Make/Model: XF-2.0  
Sl. No: ...

Condition at receipt: Functional Calibrated at : Onsite  
Date of Calibration : 20-08-2020  
Calibration due date : 19-08-2021

*Certified that the above Instrument has been calibrated by trained technical personnel of this centre using a calibration system traceable to National Standards. The calibration details attached with the certificate are authentic quantitative analysis of the instrument's credibility on the date of calibration and relate only to the Instrument calibrated.*

Date of Issue : 21-08-2020



  
Approved Signatory

**Cyrix Healthcare Pvt. Ltd.,**  
30/641 B Petta Junction, Poonithura, Kochi-38.  
Ph : 97455 55073  
Email: sales.kl@cyrix.in  
service.kl@cyrix.in

**CYRIX**<sup>TM</sup>  
HEALTH CARE PVT LTD

[www.cyrixhealthcare.com](http://www.cyrixhealthcare.com)

ISO Certified Company

AERB Approved  
QA Agency

NABL Accredited  
Calibration Agency