Unit/Plot No - 810, ILD Trade Centre, Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

To Whom It May Concern:

CALIBRATION CERTIFICATE

This is to certify that the system maintenance & calibration was performed on date 18th August 2021 for the machine, VITROS-250 Chemistry Analyzer, installed at Dr. B.Lal Clinical Laboratory, Alwar bearing Serial No. 27001297.

The calibration process includes optics calibration and the performance verification tests as per the manufacturer's procedures.

Validity: Six months for Optics Calibration.

RaviRanyan

RAVI RANJAN

Service Engineer

Unit/Plot No - 810, ILD Trade Centre, Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

CALIBRATION REPORT

Name of Instrument : VITROS 250

Serial Number : <u>27001297</u>

Installed at : Dr. B.Lal Clinical Laboratory Alwar

Date of Report : 18/08/2021

SECTION / TEST RESULT

SAMPLE METERING

a. <u>Leak Test</u> : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Dispense Leak Rate must < 0.210 V dc	Pass
The read-to-read leak rate should be < 0.030 V dc	Pass

<u>Hysteresis Test</u>: PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Maximum Hysteresis Value must be < 5.0 steps	Pass
Combined Hysteresis values of any 3 consecutive readings must be < 9.0 steps	Pass

Ravi Rangan

Unit/Plot No - 810, ILD Trade Centre, Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

REFERENCE METERING

a. <u>Leak Test</u> : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Aspirate Value < 0.175 V dc	Pass
The Ambient Pressure must in range of 2.25–2.75 V dc	Pass
Consecutive reading should not fall > 0.030 V dc	Pass

b. <u>Hysteresis Test</u>: PASS / FAIL

SPECIFICATIONS	OBSERVATION
Mean Value of Hysteresis should be <=	Pass
5.0 V dc	
Maximum Value of Hysteresis should be	Pass
<= 10.0 V dc	



Unit/Plot No - 810, ILD Trade Centre, Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

IMMUNO WASH METERING

a. <u>Leak Test</u> : PASS / FAIL

SPECIFICATIONS	OBSERVATION
The Aspirate Value < 0.175 V dc	Pass
The Ambient Pressure must in range of 2.25–2.75 V dc	Pass
Consecutive reading should not fall > 0.030 V dc	Pass

b. <u>Hysteresis Test</u>: PASS / FAIL

Mean Value of Hysteresis should be <=	Pass
5.0 V dc	
Maximum Value of Hysteresis should be	Pass
<= 11.0 V dc	



Unit/Plot No - 810, ILD Trade Centre, Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

INCUBATOR

a. <u>Pad Reflectance Test</u>: PASS / FAIL

SPECIFICATIONS	OBSERVATION
Grand Mean Value must be in range of 0.75 – 0.99	Pass
Range must be <= 0.03	Pass

ELECTROMETER

a. <u>Basic Mode Verification Test:</u> PASS / FAIL

Parameters	Test 1	Test 2	Test 3	Test 4
Input	Test	Test	Test	Test
Source	Zero 0	Zero 0	Ref 1	Ref 1
Polarity	Neg 0	Neg 0	Neg 0	Neg 0
Ohm -	Low 0	High 1	Low 0	High 1
Ohm +	Low 0	High 1	Low 0	High 1
Read Type	One 0	One 0	One 0	One 0
Specifications	0.0 mv ±	0.0 mv ±	-200 mv ±	-200 mv ±
	2.4mv	2.4mv	8mv	8mv



Unit/Plot No - 810, ILD Trade Centre, Sector - 47, Sohna Road, Gurgaon -122001

T: +91 124 4014 832

REFLECTOMETER

a. <u>IRIS Adjustment</u> : PASS / FAIL

SPECIFICATIONS	OBSERVATION
Lamp Output range 3.5 to 9.0 across all Filters	Pass

b. <u>Static Test</u> : PASS / FAIL

SPECIFICATIONS	OBSERVATION
All "%CV*K" must be <= 18.0	Pass
All "SD Dark" must be <= 1.3	Pass

c. Interleaved Static Test: PASS / FAIL

SPECIFICATIONS	OBSERVATION
All "%CV*K" must be <= 18.0	Pass
All "SD Dark" must be <= 1.3	Pass

d. <u>Dynamic Test</u> : PASS / FAIL

SPECIFICATIONS	OBSERVATION
All "%CV*K" must be <= 18.0	Pass
All "SD Dark" must be <= 1.3	Pass

RaviRanyan