



# Scheduled Maintenance Work Order

Work Order No	n/a PW0414103	Scheduled Month	January 2019
Work Order Date	n/a 01/01/2019	Completed Date	8/1/2019
Clinic Name	K.K BATU KURAU	Clinic Code	PRK058
BE No	PRK031022	District	LMS
BE Category	HEMATOLOGY ANALYZER (M)	WO Assigned to	NEER ADARUL
Ownership	<input checked="" type="checkbox"/> Existing Equipment	<input type="checkbox"/> MEET Equipment	
BE Condition	<input type="checkbox"/> Under Warranty	<input type="checkbox"/> BER Proposed	
Work Order Type	<input checked="" type="checkbox"/> Preventive Maintenance (PM) <input type="checkbox"/> Routine Inspection (RI)	<input type="checkbox"/> Third Party Calibration (TPC) <input type="checkbox"/> Statutory Certification (SC)	

Reschedule Date	
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## BE Third Party Calibration / Statutory Certification Details

Company Name	n/a	Cal / Cert Date	n/a
Contact Number	n/a	Cal / Cert Expiry Date	n/a

## Action Taken

PPM COMPLETED AS PER CHECKLIST

Manufacturer : M170N KOTHOEN  
Model : M6K 650K  
S/N : 01242  
Purchase Date : 3/11/2015  
Kewpa No : 10KM/JKR/PRK/PRK/08-06-01/14/14/19

## Schedule Maintenance Execution Details

SI No	QMS Engineer / Technician Name	Date	Start Time	End Time
1	ADARUL	8/1/2019	14:00	16:00

## Customer Remarks

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<b>Engineer / Technician Signature</b> Name Date 8/1/2019 NOOR AZARUL B AHAMAD PERAK LAB SPECIALIST Quantum Medical Solution Sdn. Bhd No 10 B, Persiaan Greentown 4C Greentown Avenue, 30450 Ipoh, Perak Tel/fax : 05-2461991 Hp : 012-39648013	<b>Customer Signature</b> Name Designation Date Seal SURAYA HANI BT. MOHAMAT MASTAN Juruteknologi Makmal Perubatan U29 Klinik Kesihatan Batu Kurau 8/1/19
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For Internal Use only

First Verification  
QMS Circle InchargeFinal Verification  
QMS State Incharge





KEMENTERIAN KESIHATAN MALAYSIA  
MEET Planned Preventive Maintenance Checklist  
Analyzers, Laboratory, Hematology, Cell Counting, Automated ( Medium )  
BE CODE : ME-009

CHECKLIST NO: CL-015-000  
REV.000

**PART 1 ASSET DETAILS**

WORK ORDER NO *n/a* BE NO *PRK031022*  
MANUFACTURER *n/hen keHoen* MODEL *MEK 6510 k*  
FREQUENCY *6 MONTHLY ( / )* 12 MONTHLY ( ) PPM HOURS *2.00*

**PART 2 SPECIAL PRECAUTION**

If there is evidence of body fluid contamination, submit the device for cleaning and decontamination before inspecting it.

Wear appropriate Personnel Protection Equipment (PPE) during work.

Wear grounded electrostatic wristband when handling PCB or electronic components.

Refer to the safety procedure for additional precautions and guidance as per manufacturer guidelines.

Make sure the test equipment used are duly calibrated.

**PART 3 TEST APPARATUS**

Tick ( ☒ ) where appropriate

NO	ASSET NO	DESCRIPTION	SERIAL NO	CALIBRATION DUE ON
<i>n/a</i>		ELECTRICAL SAFETY ANALYZER	<i>n/a</i>	

**PART 4 QUALITATIVE TASKS**

Tick ( ☒ ) where appropriate

	PASS	FAIL	NA		PASS	FAIL	NA
1 Chassis - verify physical integrity, cleanliness and condition	( / )	( )	( )	11 Probes- Verify physical integrity	( / )	( )	( )
2 Mount/ Fasteners - verify physical integrity	( / )	( )	( )	12 Temperature system- verify proper operation	( / )	( )	( )
3 Power Cord - verify proper insulation and integrity	( / )	( )	( )	13 Fan/motor/compressor/pump- verify physical integrity and proper operation	( / )	( )	( )
4 Strain Relief - verify physical integrity at both ends of line cord	( / )	( )	( )	14 Initialization Process- Verify	( / )	( )	( )
5 Fittings/ Connectors - check all fittings/connectors	( / )	( )	( )	15 Printer - Verify physical operation.	( / )	( )	( )
6 Controls/Switches - verify proper operation of controls	( / )	( )	( )	16 User Setting - Verify Operation	( / )	( )	( )
7 Indicators/Displays- verify proper operation	( / )	( )	( )	17 User calibration - Verify Operation	( / )	( )	( )
8 Electrodes and Transducer -verify physical integrity	( / )	( )	( )	18 Self Diagnostic - Verify Operation	( / )	( )	( )
9 Hydraulics and Pneumatics System-verify physical integrity	( / )	( )	( )	19 Plate movement calibration - Verify Operation	( )	( )	( / )
10 Sensors- verify physical integrity	( / )	( )	( )				

**PART 5 PREVENTIVE MAINTENANCE TASKS**

Tick ( ☒ ) where appropriate

	DONE	NOT DONE	NA		DONE	NOT DONE	NA
1 Clean exterior and interior of the equipment	( / )	( )	( )	6 Clean measuring area	( / )	( )	( )
2 Inspect/clean interior of unit	( / )	( )	( )	7 Calibrate system parameter	( / )	( )	( )
3 Clean hydraulics and pneumatic system	( / )	( )	( )	8 Perform Post routine	( / )	( )	( )
4 Tubings - clean/ replace ***	( / )	( )	( )				
5 Clean sampling mechanism	( / )	( )	( )				

Notes:

\* For all Parts, NA is defined as NOT APPLICABLE

\*\* If you have ticked 'NOT DONE', then justify in Part 8

\*\*\* Choose Whichever Applicable





## KEMENTERIAN KESIHATAN MALAYSIA

MEET Planned Preventive Maintenance Checklist  
Analyzers, Laboratory, Hematology, Cell Counting, Automated (Medium)  
BE CODE : ME-009

CHECKLIST NO: CL-015-000 REV.000

WORK ORDER NO. n/o

## PART 6 QUANTITATIVE TASKS

Tick (✓) where appropriate

No	Description	Units / UOM	Set Values	Measured Values	Limit/Tolerance	PASS	FAIL	NA
1.	BACKGROUND CHECK	-	REFER ATTACHMENT	-	1			
2.	QC TEST	-	REFER ATTACHMENT	-	1			

## PART 7 ELECTRICAL SAFETY TEST

ELECTRICAL SAFETY TEST. (attach report)

Tick (✓) where appropriate

Standard use :

☐ IEC 60601☐ IEC 61010☐ IEC 62353

Result :

☐ PASS☐ FAIL☒ NA

## PART 8 NOTES

\*NOT APPLICABLE FOR ELECTRICAL SAFETY TEST  
DUE TO UNIT RUNNING UNDER SOFTWARE  
BASE.



CORRECTIVE MAINTENANCE REQUIRED



FUNCTIONING



NOT FUNCTIONING

WORK ORDER NO. n/oNEXT PPM DATE July 2019

PPM has been performed in accordance to the checklist and the equipment is functioning to the intended purpose.

COMPLETED BY:

NOOR AZARUL B AHAMAD

PERAK LAB SPECIALIST

Quantum Medical Solution Sdn. Bhd

No 10 B, Persiaran Greentown 4c

Greentown Avenue, 30450 Ipoh, Perak

Tel/fax : 05-2461981 Hp : 012-39648013

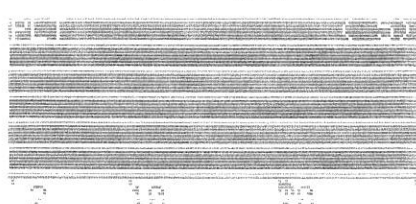
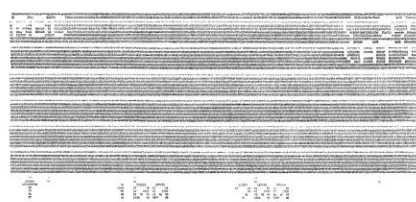
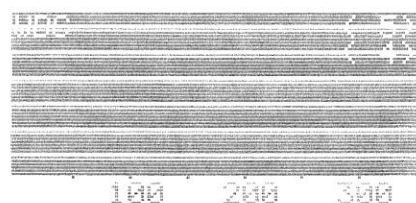
DATE:

8/1/2019



# BACKGROUND

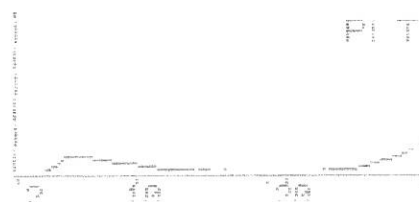
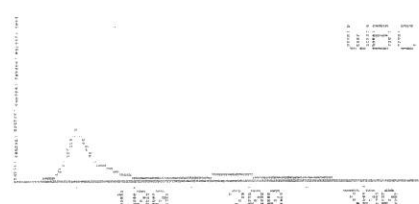
WBC 0.0  
RBC 0.00  
HGB 0.0  
HCT 0.0  
MCV  
MCH  
MCHC  
PLT 0



## RV DATU KURAU-2 RR DATU KURAU-2

08 JAN '19 15:38

ID MEK3DL01081-t

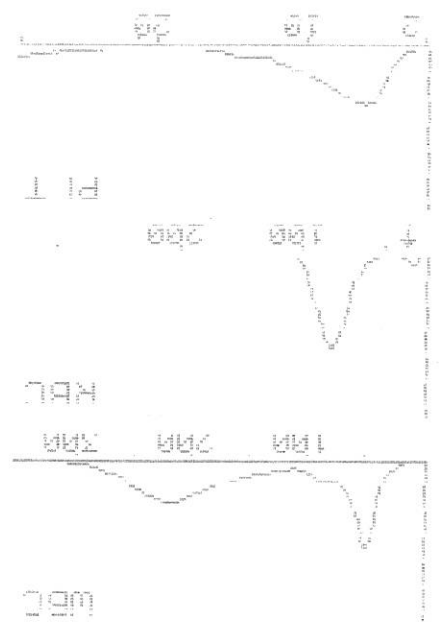


WBC	2.0	$10^3 / \mu L$
RBC	2.42	$10^6 / \mu L$
HGB	6.2	g/dL
HCT	10.1	%
MCV	74.8	fL
MCH	25.6	pg
MCHC	34.3	g/dL
PLT	0.7	$10^3 / \mu L$
	(%)	( $10^3 / \mu L$ )
LY	56.0	1.1
NU	9.3	0.2
GR	34.7	0.7

RDW	17.0	%
PCT	0.00	%
MPV	9.3	fL
PDW	16.8	%



08 JUN '19 15:42



ID MEK3DNG1081-1

WBC	7.6	10 <sup>9</sup> /mL
RBC	4.66	10 <sup>6</sup> /mL
HSB	13.9	g/dL
HCT	35.2	%
MCH	54.1	pg
MCHC	29.8	g/dL
PLT	270	10 <sup>3</sup> /mL
LY	30.9	(%)
NU	4.1	g/dL
GP	65.0	g/dL
PDI	17.9	%
TCT	0.27	%
PFU	9.6	g/dL
PDI	12.7	%

(10<sup>3</sup>/mL)  
g/dL  
g/dL  
g/dL

ID MEK3DH01081-1

WBC	20.4	10 <sup>9</sup> /mL
RBC	5.79	10 <sup>6</sup> /mL
HSB	10.1	g/dL
HCT	30.0	%
MCH	52.5	pg
MCHC	36.9	g/dL
PLT	274	10 <sup>3</sup> /mL
LY	15.9	(%)
NU	1.7	g/dL
GP	82.4	g/dL
PDI	15.9	%
TCT	0.44	%
PFU	10.0	g/dL
PDI	12.5	%

(10<sup>3</sup>/mL)  
g/dL  
g/dL  
g/dL

