



State of Vermont
Department of Public Safety
VERMONT FORENSIC LABORATORY
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DMT Technical Support Inquiry

DMT Serial #: 100146
Agency/Site: VSP Middlesex
Date: 02/02/2022
DMT Supervisor: Chelsea Delphia

Problem:

Cal check errors were obtained during DUI processing. The instrument has been running near the limit of the Xq acceptance criteria, resulting in intermittent cal check errors. A successful RPC was performed after this error but prior to the instrument being picked up by VFL. The instrument was still removed from service and returned to the lab for routine maintenance.

Work Performed:

The detector block was removed and cleaned using foam swabs and compressed air. The quartz disc was also cleaned with Windex. The detector block was reassembled and 50 filter wheel cycles were completed without error on 2/3/2022. Detector voltages were optimized and the instrument was allowed to stabilize for 3 days. On 2/7/2022, a successful calibration and certification were performed. The instrument is now ready for installation at the agency.

Performed On Site ☐
Performed In house ☒

Performed By: Jeffery Dukette JSD

Date: 2/7/2022

Technical Reviewer: JSD

Date: 2/7/2022

Administrative Reviewer: [Signature]

Date: 2/8/2022

Director Reviewer: [Signature]

Date: 2/8/2022

CALIBRATION REPORT

DataMaster DMT: 100146
Calibration Date: 02/07/2022
Calibrated by: JEFFERY DUKETTE
Lot: 21-14-100



Ca	=	0.100		
CAL	=	0.967673	0.800	<= CAL < 1.200
b1	=	0.000	0.000	<= b1 < 0.004
b2	=	0.007	0.002	<= b2 < 0.010
b3	=	0.000	0.000	<= b3 < 0.004
Xq	=	0.098	0.050	<= Xq < 0.200
a21	=	1.211894	1.050	<= a21 < 1.300
a31	=	0.545579	0.300	<= a31 < 0.800

PI water

BL-DMT10222021 34.01°C

JD 2/7/22

Performed by

JD

Date

02/07/2022



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100146

Date: 02/07/2022

Time: 10:56:41

SUPERVISOR NAME:

JSD CAL CHECK

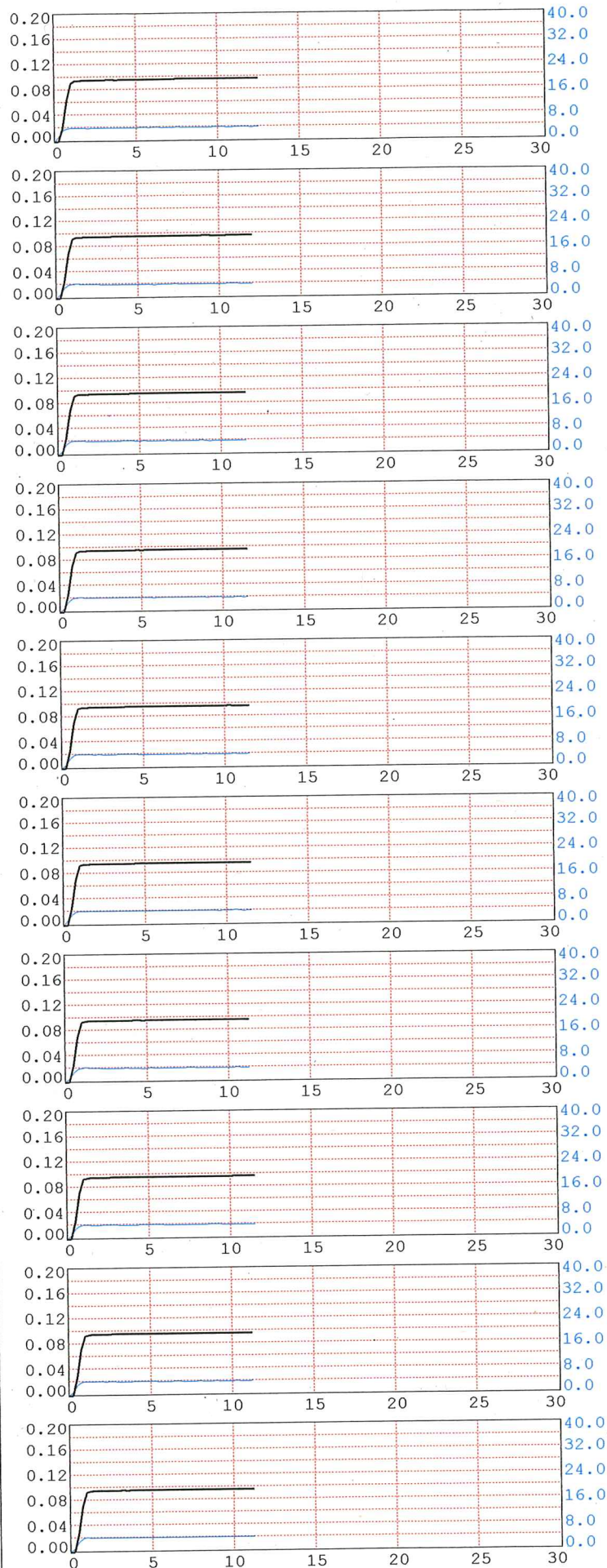
SOLUTION LOT #: 21GP41165

SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	10:57
CALIBRATION CHECK	PASSED	10:57
SIMULATOR VAPOR 34.0°C	0.097	10:58
SIMULATOR VAPOR 34.0°C	0.097	10:59
SIMULATOR VAPOR 34.0°C	0.097	11:00
SIMULATOR VAPOR 34.0°C	0.097	11:01
SIMULATOR VAPOR 34.0°C	0.097	11:02
SIMULATOR VAPOR 34.0°C	0.097	11:03
SIMULATOR VAPOR 34.0°C	0.097	11:04
SIMULATOR VAPOR 34.0°C	0.097	11:05
SIMULATOR VAPOR 34.0°C	0.097	11:06
SIMULATOR VAPOR 34.0°C	0.097	11:07
BLANK TEST	0.000	11:08

Average = 0.097

Std Dev = 0.0000



CERTIFICATION REPORT

DataMaster DMT: 100146
Calibration Date: 02/07/2022
Certification Date: 02/07/2022
Certified by: JEFFERY DUKETTE



Diagnostic Results

VERSIONS

DMT: 2.06
PIC: 2.08
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube = 45.9°C
Digital Sim = 0.0°C * Sim not connected
JSD 2/7/22

SETTINGS

Lamp Voltage = 1.64 V
Cooler Voltage = 1.63 V
Bias Voltage = 80 V
Chopper Freq = 559 Hz

PUMP INFO

Flow Rate = 5.023 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX (V)	0.0407	0.0437
MIN (V)	0.0394	0.0423

FILTER INFO

Filter 1	0.043	Zero = true
Filter 2	0.273	Zero = true
Filter 3	0.564	Zero = true

CALIBRATION CHECK

Xq = 0.098 0.36%

Options

OPTIONS

Units

Alcohol..... g/210L

Simulator

Tolerance Check..... yes
Standard Type..... wet
Nominal..... 0.100
Digital Simulator..... Guth

Subject

Ask Questions..... yes
Number of Tests..... 2
Alcohol Display..... yes
Volume Display..... yes
Query Refusal..... yes
Copies..... 3
Simulator Before..... yes
Simulator Between..... yes
Simulator After..... no
Observation Time..... 0

Supervisor

Number of Tests..... 10

Calibration

Standard Type..... wet
Nominal..... 0.100
Nominal (Dry Gas)..... 0.100
Number of Tests..... 1

Printer

Printer On..... yes

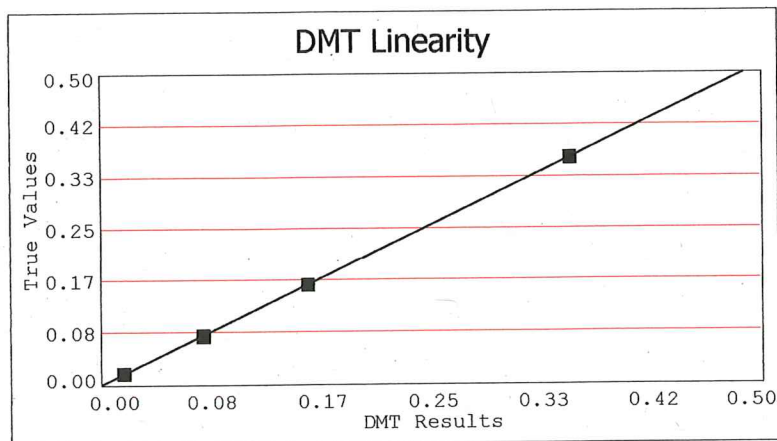
Software Configuration

Data Collection..... yes

Linearity Check Results

True Value	Reported Average	Std Dev
0.020 g/210L	0.017 g/210L	0.0003
Lot # 21-01-020		
0.080 g/210L	0.077 g/210L	0.0000
Lot # 20-12-080		
0.162 g/210L	0.156 g/210L	0.0000
Lot # 21-07-160		
0.365 g/210L	0.354 g/210L	0.0005
Lot # 21-08-360		

$R^2 = 1$



Acetone Interference Test

Lot # 20-13-08A2

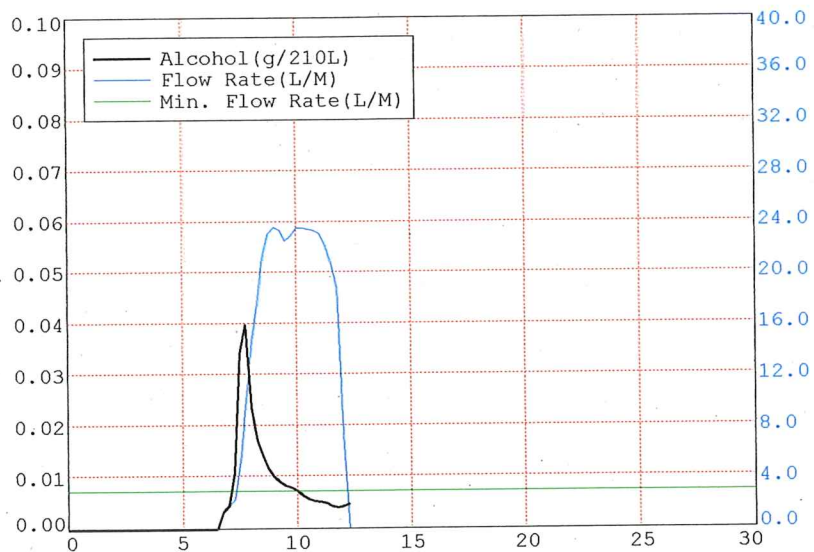
Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

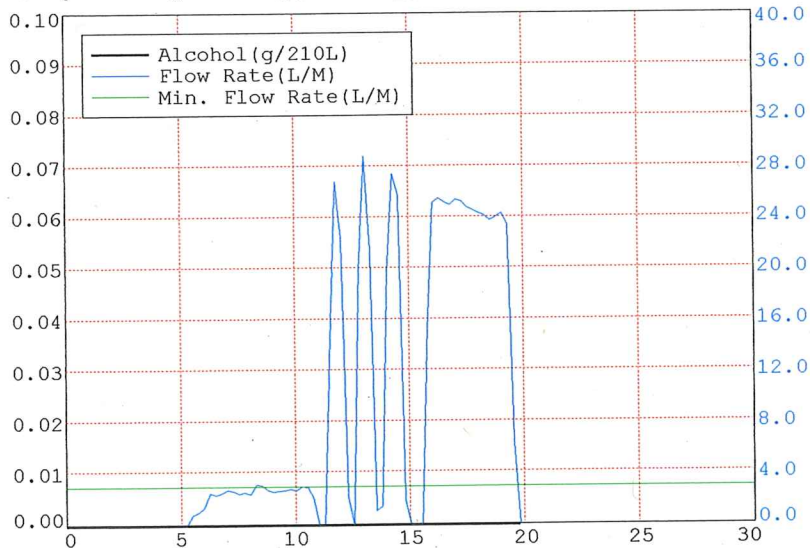
RF Detection Test

Passed



Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by

JSO

Date

02/07/2022

Reviewed by

JSO

Date

2/7/2022

DMT Serial Number #100146

Page 2 of 2

02/07/2022 12:48 PM

100146

JSO

JSO 2/7/22
45

Call Log

Person	Date	Type	VFL Staff	Case/DMT	Content
Chelsea Delphia	2/2/2022	Phone	JSD	Middlesex VSP	Chelsea called to let me know that the DMT was getting calibration check errors during a DUI processing. I advised that there is no quick solution and that the DMT will need to come back for maintenance. I also let her know that the DMT was on the edge of acceptance criteria and if the QC passes, the DMT is ok to continue to use.

100146

SD

Middlesex DataMaster

Delphia, Chelsea <Chelsea.Delphia@vermont.gov>

Wed 2022-02-02 2:50 PM

To: DPS - DMT <DPS.DMT@vermont.gov>

Good Afternoon,

The DataMaster at Middlesex is down. It's saying calibration error.

Thank you,
Chelsea

100146

JD

7