



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: 5/8/2021
DMT Supervisor: Crista Maurice

Problem:

Mutiple cal check errors observed during DUI processing.

Work Performed:

On 5/13/21, the detector block was removed. The quartz disc has a fog-like haze on it. The quartz wheel was replaced. The filters and new quartz disc were cleaned with foam swabs and compressed air. It was also observed that the silver wire of the detector had a small fray in it so the detector was replaced. The detector block was reassembled and 40 filter wheel cycles were obtained without error. The detector voltages were optimized and the instrument was allowed to stablize for 5 days. A successful calibration adjustment and certification were performed on 5/18/21. The instrument is now ready for installation at the agency.

Performed On Site ☐
Performed In house ☒

Performed By: Jeff Dukette *JD*

Date: 5/18/2021

Technical Reviewer: Amanda B Ordus *AB*

Date: 5/20/2021

Administrative Reviewer: Amanda B Ordus *AB*

Date: 5/20/2021

Director Reviewer: [Signature]

Date: 5/20/2021

CALIBRATION REPORT

DataMaster DMT: 100146
Calibration Date: 05/18/2021
Calibrated by: JEFFERY DUKETTE
Lot: 21-02-100



Ca	=	0.100		
CAL	=	0.962023	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	=	0.111	0.050	<= Xq < 0.200
a21	=	1.215621	1.050	<= a21 < 1.300
a31	=	0.551317	0.300	<= a31 < 0.800

DI water

BL-DMT 01072020 34.00°C

JD 5/18/21

Performed by

JD

Date

05/18/2021



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100146

Date: 05/18/2021

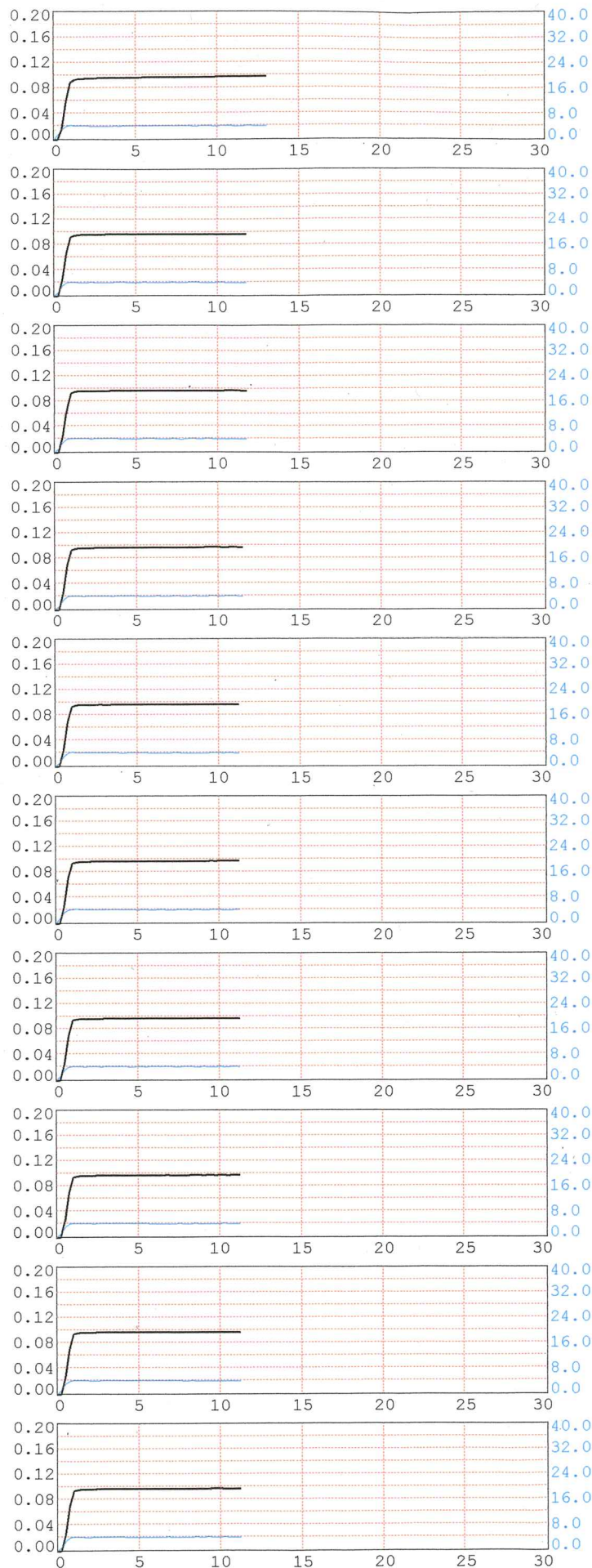
Time: 12:08:35

SUPERVISOR NAME:
JSD CAL CHECK

SOLUTION LOT #: ACS202010E
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	12:09
CALIBRATION CHECK	PASSED	12:09
SIMULATOR VAPOR 34.0°C	0.098	12:09
SIMULATOR VAPOR 34.0°C	0.098	12:10
SIMULATOR VAPOR 34.0°C	0.098	12:12
SIMULATOR VAPOR 34.0°C	0.098	12:13
SIMULATOR VAPOR 34.0°C	0.098	12:14
SIMULATOR VAPOR 34.0°C	0.098	12:15
SIMULATOR VAPOR 34.0°C	0.098	12:16
SIMULATOR VAPOR 34.0°C	0.098	12:17
SIMULATOR VAPOR 34.0°C	0.098	12:18
SIMULATOR VAPOR 34.0°C	0.098	12:19
BLANK TEST	0.000	12:20

Average = 0.098
Std Dev = 0.0000



CERTIFICATION REPORT

DataMaster DMT: 100146
Calibration Date: 05/18/2021
Certification Date: 05/18/2021
Certified by: JEFFERY DUKETTE



Diagnostic Results

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.9°C
Breath Tube = 46.4°C
Digital Sim = 34.0°C

SETTINGS

Lamp Voltage = 1.61 V
Cooler Voltage = 1.58 V
Bias Voltage = 80 V
Chopper Freq = 560 Hz

PUMP INFO

Flow Rate = 4.967 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX (V)	-0.0465	-0.0425
MIN (V)	-0.0478	-0.0435

FILTER INFO

Filter 1	-0.043	Zero = true
Filter 2	0.184	Zero = true
Filter 3	0.471	Zero = true

CALIBRATION CHECK

Xq = 0.111 0.00%

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	0.020 g/210L	0.0000
Lot # 21-01-020		
0.080 g/210L	0.078 g/210L	0.0004
Lot # 20-12-080		
0.162 g/210L	0.158 g/210L	0.0003
Lot # 21-07-160		
0.371 g/210L	0.356 g/210L	0.0005
Lot # 20-16-360		

$R^2 = 1$

Acetone Interference Test

Lot # 20-13-08A2
Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

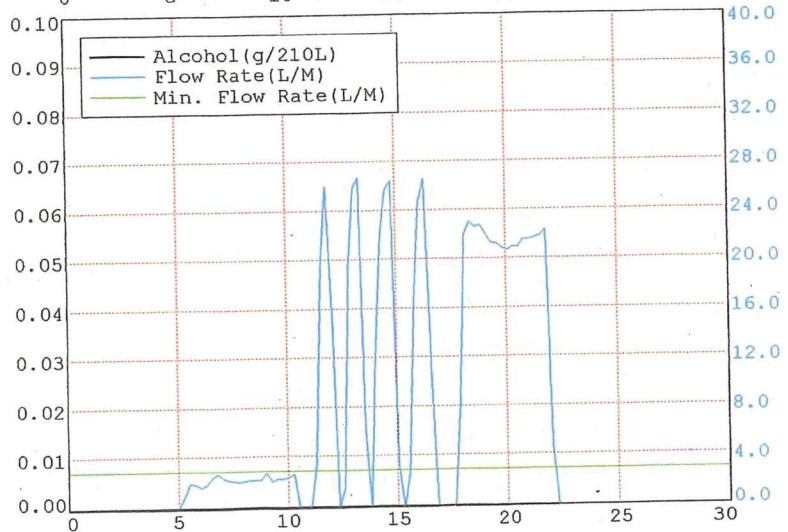
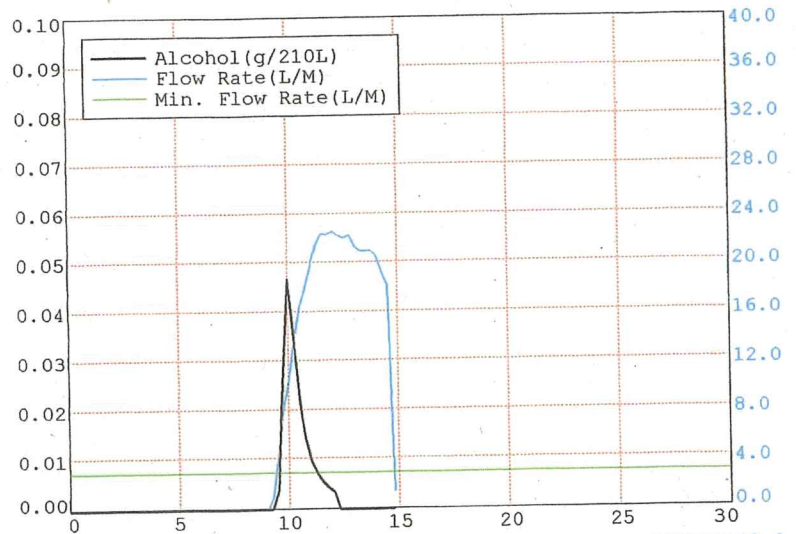
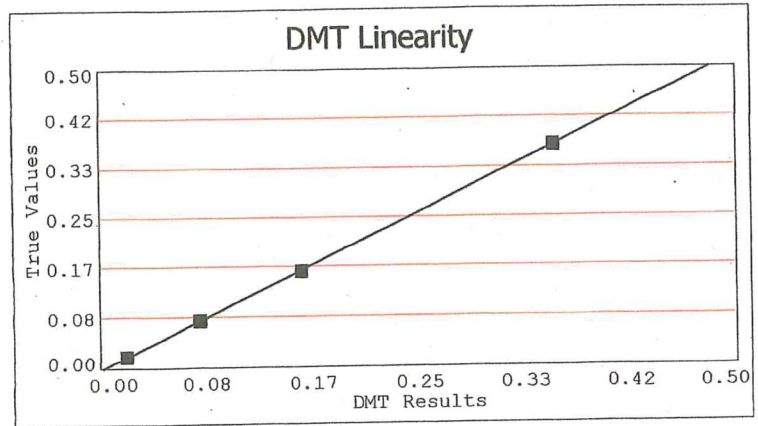
RF Detection Test

Passed

Sample Acceptance Test

Passed

CERTIFICATION PASSED



Performed by

[Signature]

Date

05/18/2021

Reviewed by

Amanda B. Borduc

Date

5/20/2021

DMT Serial Number #100146

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05/18/2021 2:10 PM

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Re: DMT error

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

Mon 2021-05-10 8:22 AM

To: Maurice, Crista <Crista.Maurice@vermont.gov>

Good morning Crista,

We will come grab the DMT for maintenance. There is nothing more needed from you.

Thanks,

Jeff

From: Maurice, Crista <Crista.Maurice@vermont.gov>

Sent: Saturday, May 8, 2021 9:53 PM

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

Subject: DMT error

Good Morning,

The DMT at the Middlesex barracks is having trouble with the calibration check error again. It's happened twice over the last week. I have tried turning it off and running a diagnostic test and it still isn't working.

Please let me know if there is anything you need from me.

Thank you,
Crista

Trooper Crista Maurice
Vermont State Police - Middlesex
1080 US Rte 2
Middlesex, Vermont
Phone: (802) 229-9191
Fax: (802) 229-2648

100146

SD

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