



VERMONT FORENSIC LABORATORY

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DATAMASTER TECHNICAL SUPPORT INQUIRY

Agency/Site: Windham CSO - Vernon DataMaster Serial #: 100141

Date: 10/25/2015 Requestor: Chris Norton

Instrument Supervisor: Chris Norton Phone #: (802) 254-6962

Taken By: Rob Driscoll

Problem: Simulator timing out.

Laboratory Response: Alcohol program staff asked the DMT Supervisor to make sure the simulator jar was tight and that the quick connects were secure. The DMT Supervisor advised that the connections had been checked and that the problem still exists. Alcohol program staff to troubleshoot the instrument at the Lab.

Work Performed: Alcohol program staff noticed an oscillation in the alcohol curve causing it to not reach a plateau and time out during simulator tests. Replaced the controller PCB and tested with accuracy and precision tests. The instrument is operating to the manufacturer's specifications. The instrument has been Calibrated, Certified, and is awaiting installation in the agency.

On Site In-house Attachments: 6 pages

Performed By: Rob Driscoll *RCD* Date: 11/9/2015
Final Review: [Signature] Date: 11/9/15

Driscoll, Rob

From: Driscoll, Rob
Sent: Tuesday, November 03, 2015 6:26 AM
To: Chris Norton
Subject: Re: Vernon DMT

Chris,
Thank you. I wanted to make sure before I drove down as I have been very busy.

Regards,
Rob

Sent from my iPhone

On Nov 3, 2015, at 6:24 AM, Chris Norton <cnorton@windhamcountyvt.gov> wrote:

After the last email I rechecked all the connections, unscrewed the simulator head, check the seal screwed it back on and then ran an accuracy and precision check and it worked fine. I then placed it back in service and it malfunctioned again.

On Nov 3, 2015 6:07 AM, "Driscoll, Rob" <Rob.Driscoll@vermont.gov> wrote:
Has anybody even checked the simulator, or has the instrument just been left in use until it could fail again?

Rob

Sent from my iPhone

On Nov 3, 2015, at 5:04 AM, Chris Norton <cnorton@windhamcountyvt.gov> wrote:

It happened again. I've placed it out of service once again.

On Mon, Oct 26, 2015 at 8:12 AM, Driscoll, Rob <Rob.Driscoll@vermont.gov> wrote:

Chris,

There should be a key for the simulator lock at one of your agencies. Please make sure the Jar is not cross threaded and tight. Also make sure the quick connects both "click" while pushing the simulator onto the tower. In looking at past reports, the instrument was not having this issue until after your October RPC. Let me know if this resolves your problem.

Regards,
Rob

Robert Driscoll

Vermont Forensics Laboratory

45 State Drive

Waterbury, VT 05671

Electronics Technician

Rob.Driscoll@Vermont.gov

Desk: [\(802\) 241-5817](tel:(802)241-5817)

Cell: [\(802\) 585-0123](tel:(802)585-0123)

From: cnorton@windhamsheriff.com [mailto:cnorton@windhamsheriff.com] **On Behalf Of** Chris Norton
Sent: Sunday, October 25, 2015 9:39 AM
To: Driscoll, Rob
Subject: Vernon DMT

The Vernon DMT is out of service due to the simulator timing out. I checked the connections to the simulator and ran an accuracy and precision check. It was fine until the seventh test where out again gave the error. Unfortunately whomever was the DMT supervisor for Vernon PD did not leave a DMT tool so I could not check the internal connections.

--

DFC. Chris Norton
Windham County Sheriff's Office-Vernon Division
Phone: [802-254-6962](tel:802-254-6962)
Fax: [802-258-2638](tel:802-258-2638)

www.windhamsheriff.com

CALIBRATION REPORT

DataMaster DMT: 100141
Calibration Date: 11/09/2015
Calibrated by: ROBERT DRISCOLL
Lot: 15-08-100



| | | | | |
|-----|---|----------|-------|----------------|
| Ca | = | 0.100 | | |
| CAL | = | 0.975299 | 0.800 | <= CAL < 1.200 |
| b1 | = | 0.000 | 0.000 | <= b1 < 0.004 |
| b2 | = | 0.005 | 0.002 | <= b2 < 0.010 |
| b3 | = | 0.000 | 0.000 | <= b3 < 0.004 |
| Xq | = | 0.082 | 0.050 | <= Xq < 0.200 |
| a21 | = | 1.180595 | 1.050 | <= a21 < 1.300 |
| a31 | = | 0.467809 | 0.300 | <= a31 < 0.800 |

Performed by

RD

Date

11/09/2015



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMaster DMT: 100141

Date: 11/09/2015

Time: 09:02:56

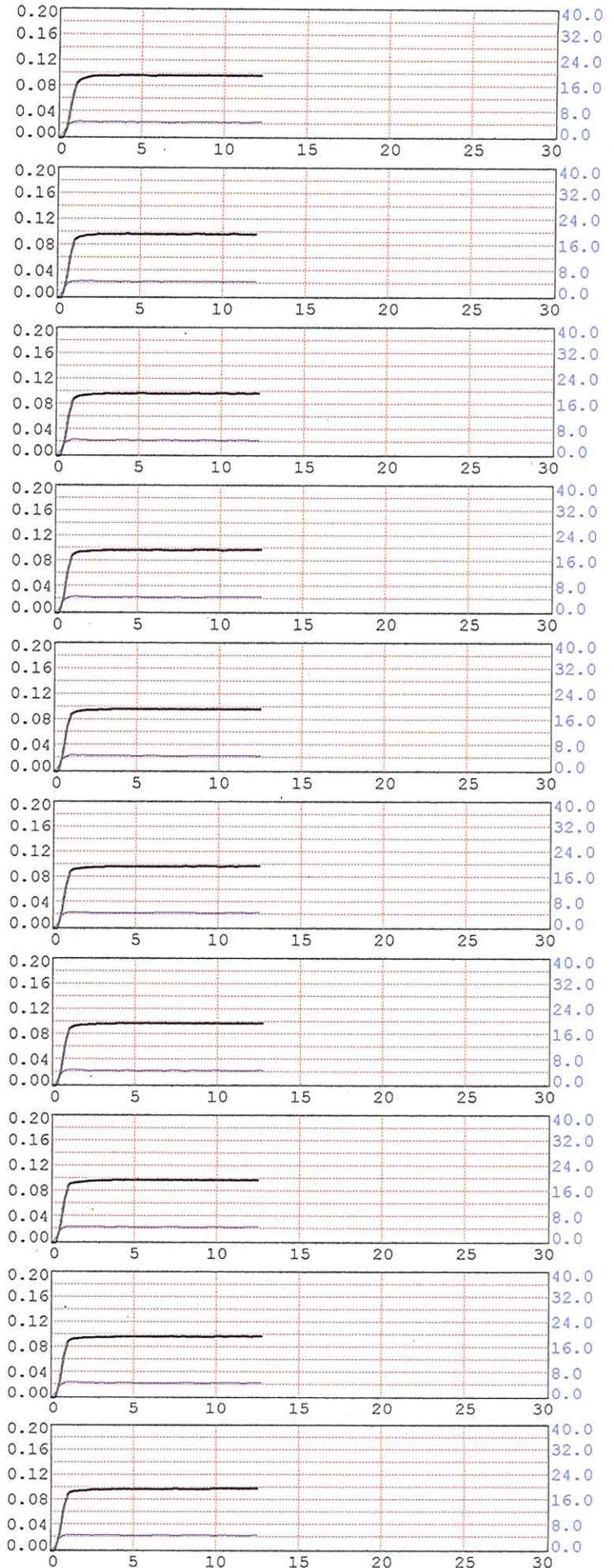
SUPERVISOR NAME:
RCD CAL CHECK

SOLUTION LOT #: GUTH 15050

SOLUTION CONCENTRATION: 0.100

| | | |
|------------------------|--------|-------|
| BLANK TEST | 0.000 | 09:03 |
| CALIBRATION CHECK | PASSED | 09:03 |
| SIMULATOR VAPOR 33.9°C | 0.097 | 09:04 |
| SIMULATOR VAPOR 34.0°C | 0.098 | 09:05 |
| SIMULATOR VAPOR 34.0°C | 0.098 | 09:06 |
| SIMULATOR VAPOR 33.9°C | 0.098 | 09:07 |
| SIMULATOR VAPOR 33.9°C | 0.097 | 09:08 |
| SIMULATOR VAPOR 34.0°C | 0.098 | 09:09 |
| SIMULATOR VAPOR 34.0°C | 0.098 | 09:10 |
| SIMULATOR VAPOR 33.9°C | 0.098 | 09:11 |
| SIMULATOR VAPOR 34.0°C | 0.098 | 09:12 |
| SIMULATOR VAPOR 33.9°C | 0.099 | 09:13 |
| BLANK TEST | 0.000 | 09:14 |

Average = 0.097
Std Dev = 0.0005



CERTIFICATION REPORT

DataMaster DMT: 100141
Calibration Date: 11/09/2015
Certification Date: 11/09/2015
Certified by: ROBERT DRISCOLL



Diagnostic Results

VERSIONS

DMT: 2.00
PIC: 2.06
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.3°C
Breath Tube = 42.8°C
Digital Sim = 34.0°C

SETTINGS

Lamp Voltage = 1.72 V
Cooler Voltage = 1.74 V
Bias Voltage = 80 V
Chopper Freq = 535 Hz

PUMP INFO

Flow Rate = 6.139 L/M

DETECTOR INFO

| PUMP | ON | OFF |
|---------|--------|--------|
| MAX (V) | 0.0524 | 0.0553 |
| MIN (V) | 0.0512 | 0.0539 |

FILTER INFO

| | | |
|----------|-------|-------------|
| Filter 1 | 0.055 | Zero = true |
| Filter 2 | 0.362 | Zero = true |
| Filter 3 | 0.653 | Zero = true |

CALIBRATION CHECK

Xq = 0.082 0.32%

Options

OPTIONS

Units

Alcohol..... g/210L

Simulator

Tolerance Check..... yes
Standard Type..... wet
Nominal..... 0.100
Digital Simulator..... Guth34CNP

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

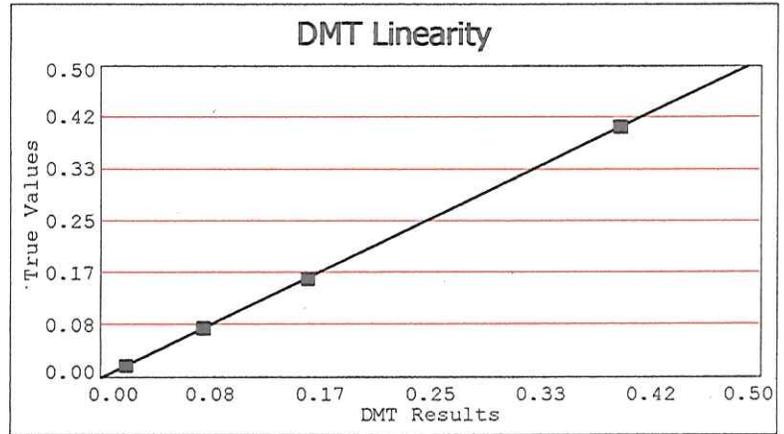
Software Configuration

Data Collection..... yes

Linearity Check Results

| True Value | Reported Average | Std Dev |
|-----------------|------------------|---------|
| 0.020 g/210L | 0.019 g/210L | 0.0003 |
| Lot # 15-11-020 | | |
| 0.080 g/210L | 0.078 g/210L | 0.0003 |
| Lot # 15-04-080 | | |
| 0.159 g/210L | 0.157 g/210L | 0.0003 |
| Lot # 15-03-160 | | |
| 0.402 g/210L | 0.393 g/210L | 0.0017 |
| Lot # 15-10-400 | | |

R² = 1



Acetone Interference Test

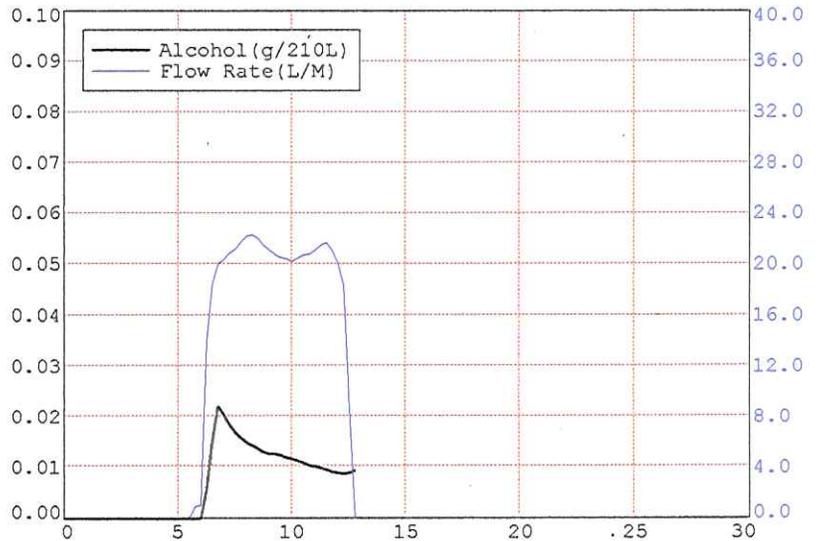
Lot # 15-04-08A1C
Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

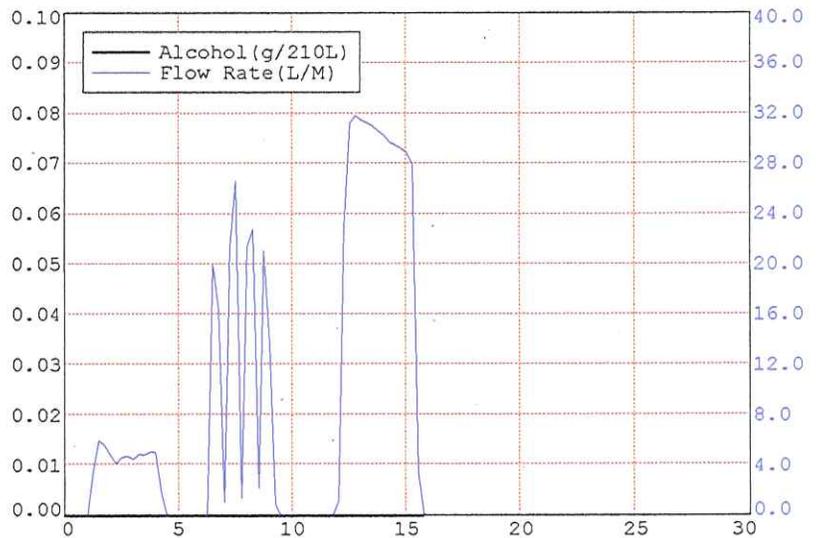
RF Detection Test

Passed



Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by 76 RCD

Date 11/09/2015

Reviewed by AB

Date 11/9/15

ROUTINE PERFORMANCE CHECK REPORT



DataMaster DMT: 100154
Location: WASHINGTON COUNTY SO
Calibration Date: 09/29/2015
Certification Date: 09/29/2015
Installation Date: 09/29/2015
RPC Date: 10/29/2015
Supervisor Name: MARC P POULIN

Diagnostic Results

VERSIONS
DMT: 2.00
PIC: 2.05
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 48.1°C
Digital Sim = 33.9°C

SETTINGS

Lamp Voltage = 1.67 V
Cooler Voltage = 1.61 V
Bias Voltage = 80 V
Chopper Freq = 540 Hz

PUMP INFO

Flow Rate = 5.792 L/M

DETECTOR INFO

| PUMP | ON | OFF |
|---------|---------|--------|
| MAX (V) | 0.0000 | 0.0024 |
| MIN (V) | -0.0014 | 0.0006 |

FILTER INFO

| | | |
|----------|-------|-------------|
| Filter 1 | 0.001 | Zero = true |
| Filter 2 | 0.374 | Zero = true |
| Filter 3 | 1.341 | Zero = true |

CALIBRATION CHECK

Xq = 0.096 0.27%

Routine Performance Check Passed

Accuracy and Precision Check

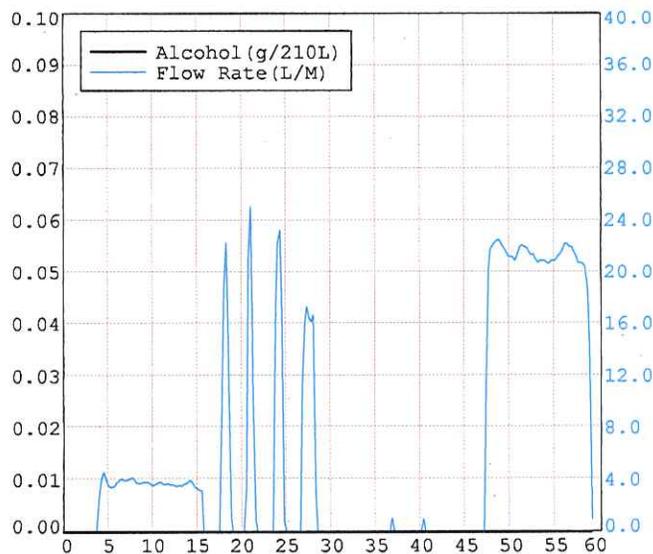
Concentration = 0.100 g/210L
Lot # = 15-07-100
Range = 0.095 - 0.105
Average = 0.100 g/210L
Std Dev = 0.0000

RF Detection Test

Passed

Sample Acceptance Test

Passed



Performed by _____

Date 10/29/2015

Reviewed by _____

Date 10/29/2015

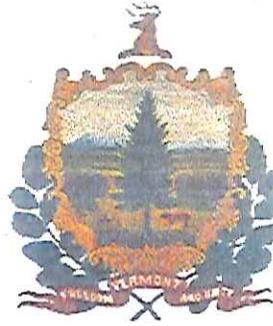
DMT Serial Number #100154

Page 1 of 1

10/29/2015 8:43 AM

Handwritten signature and date: APD 11/15/15

ROUTINE PERFORMANCE CHECK REPORT



DataMaster DMT: 123206
Location: Middlebury PD
Calibration Date: 01/03/2012
Certification Date: 01/04/2012
Installation Date: 01/12/2012
RPC Date: 10/23/2015
Supervisor Name: J RIEHL

Diagnostic Results

VERSIONS
DMT: 2.00
PIC: 2.05
Modem: 2.6
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube = 45.5°C
Digital Sim = 34.0°C

SETTINGS

Lamp Voltage = 1.73 V
Cooler Voltage = 1.77 V
Bias Voltage = 80 V
Chopper Freq = 543 Hz

PUMP INFO

Flow Rate = 4.520 L/M

DETECTOR INFO

| PUMP | ON | OFF |
|---------|--------|--------|
| MAX (V) | 0.4344 | 0.4388 |
| MIN (V) | 0.4333 | 0.4374 |

FILTER INFO

| Filter | Value | Zero |
|----------|-------|------|
| Filter 1 | 0.438 | true |
| Filter 2 | 0.785 | true |
| Filter 3 | 1.705 | true |

CALIBRATION CHECK

Xq = 0.080 0.64%

Routine Performance Check Passed

Accuracy and Precision Check

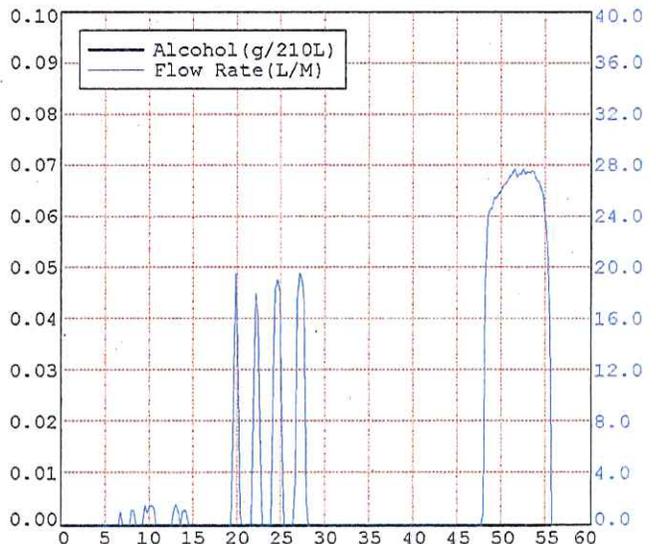
| | |
|---------------|-----------------|
| Concentration | = 0.099 g/210L |
| Lot # | = 15-12-100 |
| Range | = 0.094 - 0.104 |
| Average | = 0.099 g/210L |
| Std Dev | = 0.0005 |

RF Detection Test

Passed

Sample Acceptance Test

Passed



Performed by _____

Date 10/23/2015

Reviewed by _____

Date 11/3/15