VERMONT FORENSIC LABORATORY

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DATAMASTER TECHNICAL SUPPORT INQUIRY

Agency/Site: VFL **DataMaster Serial #:** 103206

Date: 7/17/2012 Requestor: A. Bolduc

Instrument Supervisor: _____ Phone #: _____

Taken By: R. Driscoll

Problem: Software fatal error messages during supervisor training

Laboratory Response: Unit used for Rob Driscoll's instrument maintenance training under direction of Dave Radomski from NPAS

Work Performed: 7/23-25/2012 RCD - Replaced SI controller board. Removed sample chamber, checked mirrors, replaced flow sensor t-fittings with flow adjuster assembly. Found chopper motor pin to be bent, removed and replaced. Reassembled unit. While attempting to update the software, found one of the USB ports to be defective. Replaced USB/Modem assembly board. Powered-Up unit.

7/27/12 RCD - Performed Calibration, Certification, and Installation. Unit ready for training.

☐ On Site ☒ In-house Attachments: 7 pages

Performed By: R. Driscoll RCD Date: 7/27/2012

Final Review: [signature] Date: 10/24/2012

CALIBRATION REPORT

DataMaster DMT: 103206
Calibration Date: 07/27/2012
Calibrated by: ROBERT DRISCOLL
Lot: 12-71-100

```
Ca  = 0.100
CAL = 0.980167   0.800  <= CAL < 1.200
b1  = 0.000      0.000  <=  b1 < 0.004
b2  = 0.003      0.002  <=  b2 < 0.010
b3  = 0.000      0.000  <=  b3 < 0.004
Xq  = 0.133      0.050  <=  Xq < 0.200
a21 = 1.151757   1.050  <= a21 < 1.300
a31 = 0.454560   0.300  <= a31 < 0.800
```

Performed by _____ Date 07/27/2012

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 103206

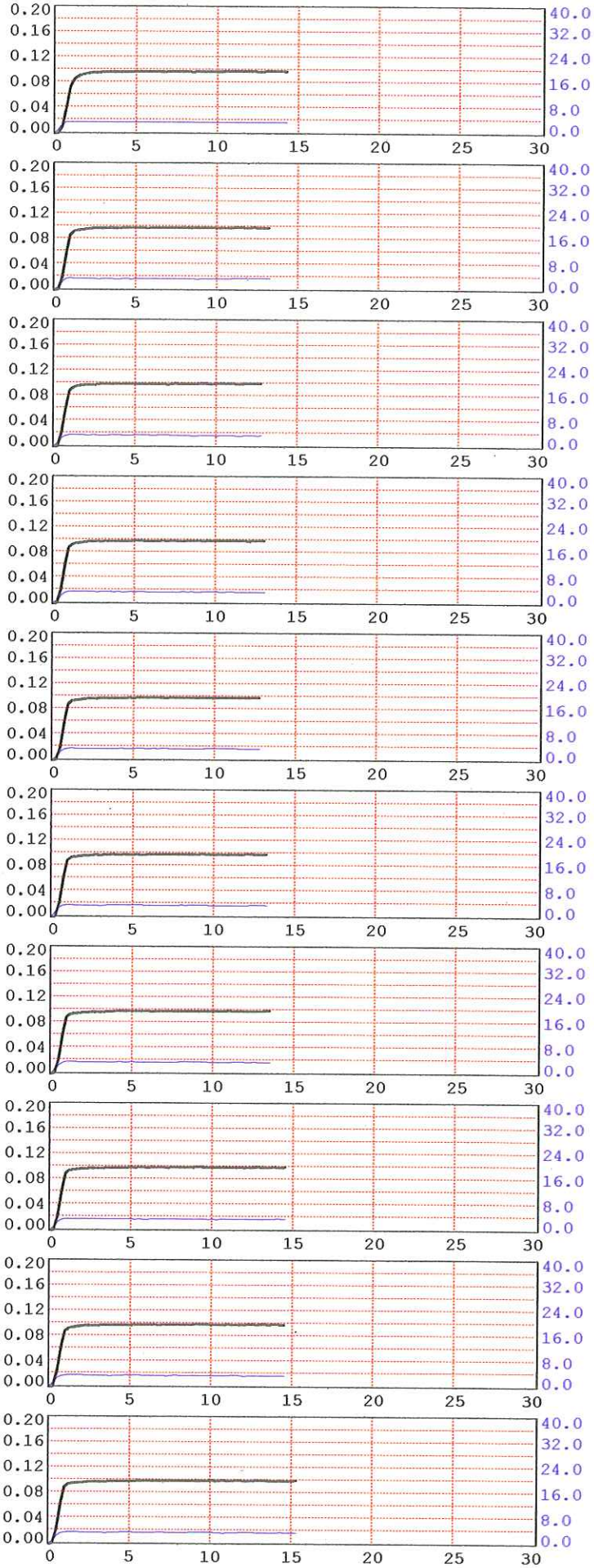
Date: 07/27/2012
Time: 08:01:34

SUPERVISOR NAME:
RD CAL CHECK

SOLUTION LOT #: 12-39-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	08:02
CALIBRATION CHECK	PASSED	08:02
SIMULATOR VAPOR 34.5°C	0.097	08:02
SIMULATOR VAPOR 34.5°C	0.098	08:03
SIMULATOR VAPOR 34.4°C	0.099	08:05
SIMULATOR VAPOR 34.5°C	0.098	08:06
SIMULATOR VAPOR 34.4°C	0.098	08:07
SIMULATOR VAPOR 34.5°C	0.098	08:08
SIMULATOR VAPOR 34.4°C	0.098	08:09
SIMULATOR VAPOR 34.4°C	0.099	08:10
SIMULATOR VAPOR 34.4°C	0.098	08:11
SIMULATOR VAPOR 34.4°C	0.099	08:12
BLANK TEST	0.000	08:13

Average = 0.098
Std Dev = 0.000



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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 103206

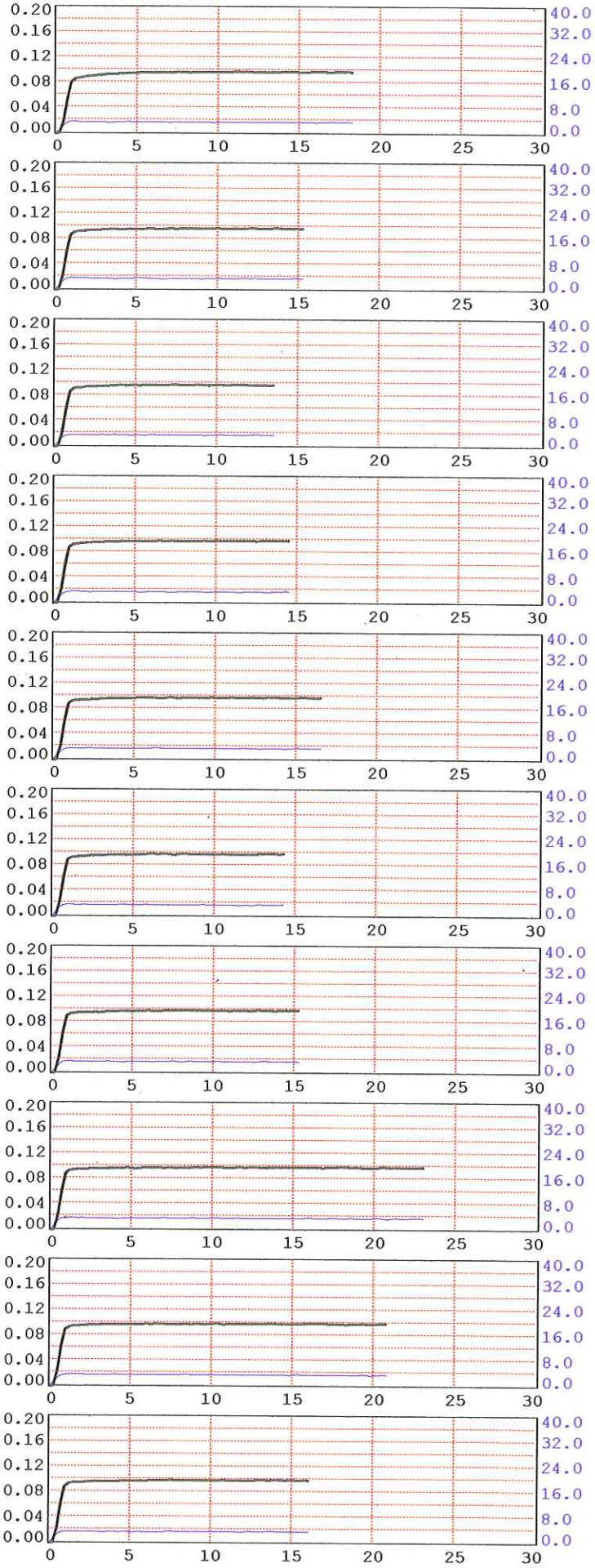
Date: 07/27/2012
Time: 08:16:33

SUPERVISOR NAME:
RD SECOND SOURCE CAL CHK

SOLUTION LOT #: GUTH 11250
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	08:17
CALIBRATION CHECK	PASSED	08:17
SIMULATOR VAPOR 33.8°C	0.097	08:17
SIMULATOR VAPOR 33.9°C	0.096	08:19
SIMULATOR VAPOR 33.8°C	0.097	08:20
SIMULATOR VAPOR 33.8°C	0.098	08:21
SIMULATOR VAPOR 33.8°C	0.097	08:22
SIMULATOR VAPOR 33.8°C	0.097	08:23
SIMULATOR VAPOR 33.9°C	0.098	08:24
SIMULATOR VAPOR 33.8°C	0.098	08:25
SIMULATOR VAPOR 33.8°C	0.098	08:27
SIMULATOR VAPOR 33.8°C	0.098	08:28
BLANK TEST	0.000	08:28

Average = 0.097
Std Dev = 0.000



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CERTIFICATION REPORT

DataMaster DMT: 103206
Calibration Date: 07/27/2012
Certification Date: 07/27/2012
Certified by: ROBERT DRISCOLL

Diagnostic Results

VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube = 43.9°C
Digital Sim = 0.0°C

SETTINGS
Lamp Voltage = 1.90 V
Cooler Voltage = 1.93 V
Bias Voltage = 120 V
Chopper Freq = 536 Hz

PUMP INFO
Flow Rate = 4.113 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.3512	0.3539
MIN(V)	0.3492	0.3496

FILTER INFO
Filter 1 0.351 Zero = true
Filter 2 0.683 Zero = true
Filter 3 1.482 Zero = true

CALIBRATION CHECK
Xq = 0.133 0.27%

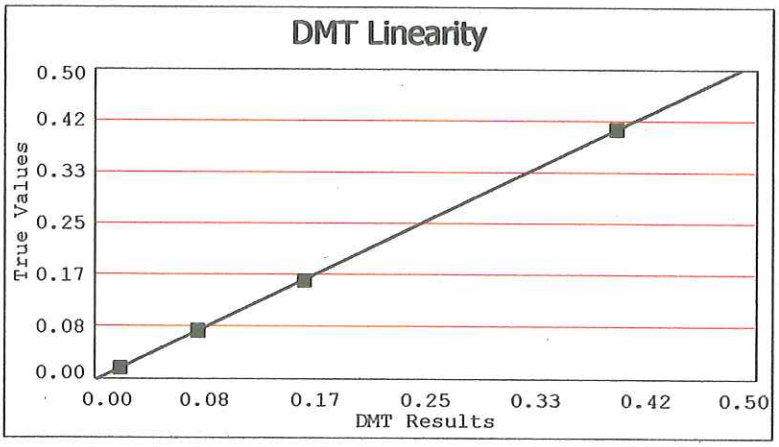
Options

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
0.019 g/210L Lot # 12-78-020	0.019 g/210L	0.0000
0.079 g/210L Lot # 12-74-080	0.078 g/210L	0.0000
0.160 g/210L Lot # 12-53-160	0.158 g/210L	0.0000
0.404 g/210L Lot # 12-62-400	0.394 g/210L	0.0000

$R^2 = 1$



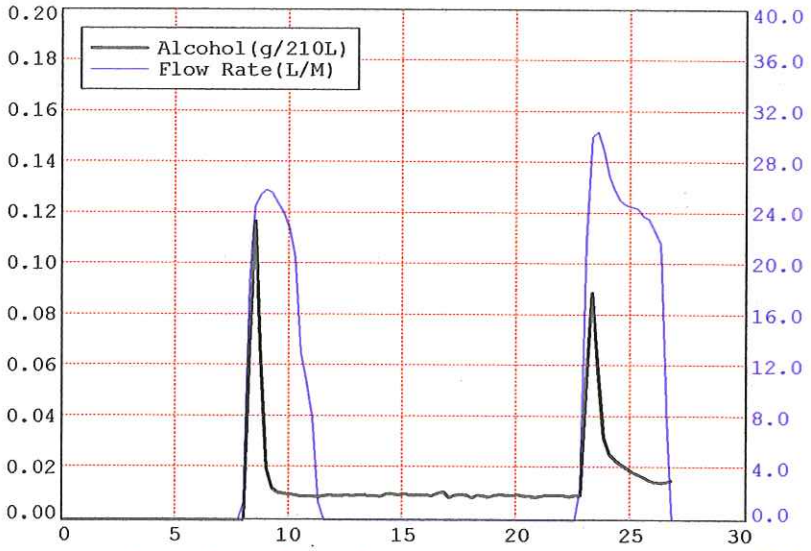
Acetone Interference Test

Lot # 12-79-08A1

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

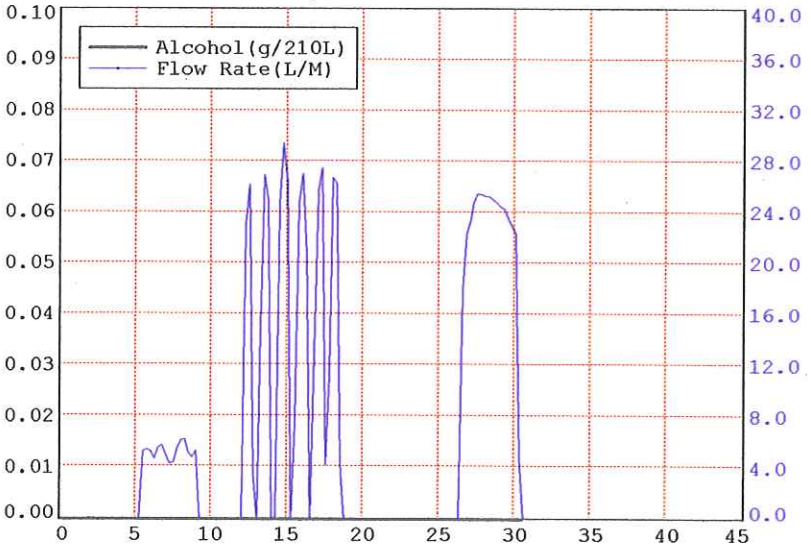


RF Detection Test

Passed

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by _____ Date 07/27/2012

Reviewed by _____ Date 10/24/2012

INSTALLATION REPORT

DataMaster DMT: 103206
Location: VFL
Calibration Date: 07/27/2012
Certification Date: 07/27/2012
Installation Date: 07/27/2012
Installed by: ROBERT DRISCOLL

Default Options Loaded

Diagnostic Results

```
VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.6°C
Breath Tube    = 42.9°C
Digital Sim    = 34.0°C

SETTINGS
Lamp Voltage   = 1.90 V
Cooler Voltage = 1.93 V
Bias Voltage   = 120 V
Chopper Freq   = 535 Hz

PUMP INFO
Flow Rate = 4.218 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.3510    0.3533
MIN(V)   0.3453    0.3478

FILTER INFO
Filter 1   0.350  Zero = true
Filter 2   0.679  Zero = true
Filter 3   1.476  Zero = true

CALIBRATION CHECK
Xq  = 0.133  0.13%
```

Accuracy and Precision Check

Concentration	=
Lot #	=
Range	=
Average	=
Std Dev	=

Simulator Timeout RCD 7/27/12

INSTALLATION FAILED

Performed by _____ **Date** 07/27/2012

Reviewed by _____ **Date** _____

INSTALLATION REPORT

DataMaster DMT: 103206
Location: VFL
Calibration Date: 07/27/2012
Certification Date: 07/27/2012
Installation Date: 07/27/2012
Installed by: ROBERT DRISCOLL

Default Options Loaded

Diagnostic Results

```
VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 49.2°C
Breath Tube    = 42.8°C
Digital Sim    = 33.9°C

SETTINGS
Lamp Voltage   = 1.90 V
Cooler Voltage = 1.93 V
Bias Voltage   = 120 V
Chopper Freq   = 535 Hz

PUMP INFO
Flow Rate = 4.228 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.3504    0.3531
MIN(V)   0.3463    0.3498

FILTER INFO
Filter 1   0.351   Zero = true
Filter 2   0.680   Zero = true
Filter 3   1.475   Zero = true

CALIBRATION CHECK
Xq  = 0.133  0.13%
```

TLC

Accuracy and Precision Check

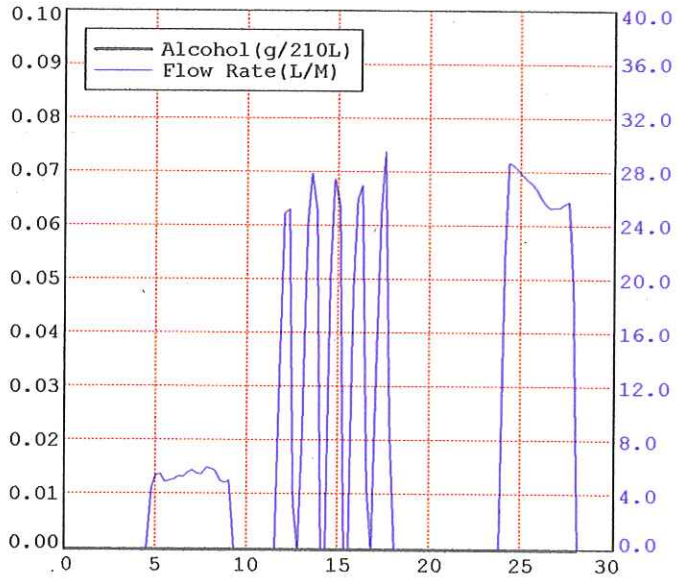
Concentration	= 0.099 g/210L
Lot #	= 12-77-100
Range	= 0.094 - 0.104
Average	= 0.102 g/210L
Std Dev	= 0.0000

RF Detection Test

Passed

Sample Acceptance Test

Passed



INSTALLATION PASSED

Performed by _____ **Date** 07/27/2012

Reviewed by _____ **Date** 10/24/2012