



VERMONT FORENSIC LABORATORY

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DATAMASTER TECHNICAL SUPPORT INQUIRY

Agency/Site: Fair Haven PD DataMaster Serial #: 100156

Date: 12/20/2012 Requestor: _____

Instrument Supervisor: Blake Cushing Phone #: (802) 265-7839

Taken By: R. Driscoll

Problem: DataMaster is being moved from the VSP Castleton outpost to Fair Haven PD. During install the detector voltage was @ 1.061V.

Laboratory Response: Ran a Diagnostic check to make sure DMT is still operating properly. All filters were able to zero without error. Will proactively bring DMT to the VFL to set detector voltage to 0V, calibrate, and certify.

Work Performed: Set detector voltage to 0V +/- 0.100 by adjusting the cooler and lamp voltage and performed a calibration. The instrument sat idle over the weekend and the detector voltage dropped to -0.180V. Made another adjustment to the cooler and lamp voltage to set the detector voltage back to 0.000V. Performed calibration and certification protocols and let sit for over 24 hours. Detector voltage is still stable at 0.003V. Needs to be installed in Fair Haven PD.

☐ On Site ☒ In-house

Attachments: 10 pages

Performed By: R. Driscoll

Date: 12/24/12

Final Review: A. Bolduc

Date: 12/26/12

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TLCA
12/31/2012

DIAGNOSTIC RESULT

DataMaster DMT:100156

Location: Castleton VSP

Calibration Date: 11/03/2011

Certification Date: 11/03/2011

Installation Date: 12/01/2011

Test Date: 12/20/2012

Test Time: 12:51:41



VERSIONS

DMT: 1.01

PIC: 2.05

Modem: 2.4

Questions: 2.1

TEMPERATURES

Sample Chamber = 49.0°C

Breath Tube = 42.0°C

Digital Sim = 34.1°C

SETTINGS

Lamp Voltage = 1.83 V

Cooler Voltage = 1.79 V

Bias Voltage = 80 V

Chopper Freq = 545 Hz

PUMP INFO

Flow Rate = 6.010 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	1.0642	1.0650
MIN(V)	1.0612	1.0616

FILTER INFO

Filter 1	1.061	Zero = true
Filter 2	1.159	Zero = true
Filter 3	1.906	Zero = true

CALIBRATION CHECK

Xq = 0.095 1.45%

12/26/12
Pg 3 of 11

Sub

CALIBRATION REPORT

DataMaster DMT: 100156

Calibration Date: 12/24/2012

Calibrated by: ROBERT DRISCOLL

Lot: 12-71-100



Ca	=	0.100	
CAL	=	0.987816	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	=	0.085	0.050 <= Xq < 0.200
a21	=	1.201760	1.050 <= a21 < 1.300
a31	=	0.448571	0.300 <= a31 < 0.800

Performed by

RB

Date

12/24/2012

12/26/12
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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100156

Date: 12/24/2012

Time: 09:05:01

SUPERVISOR NAME:

RCD CAL CHECK

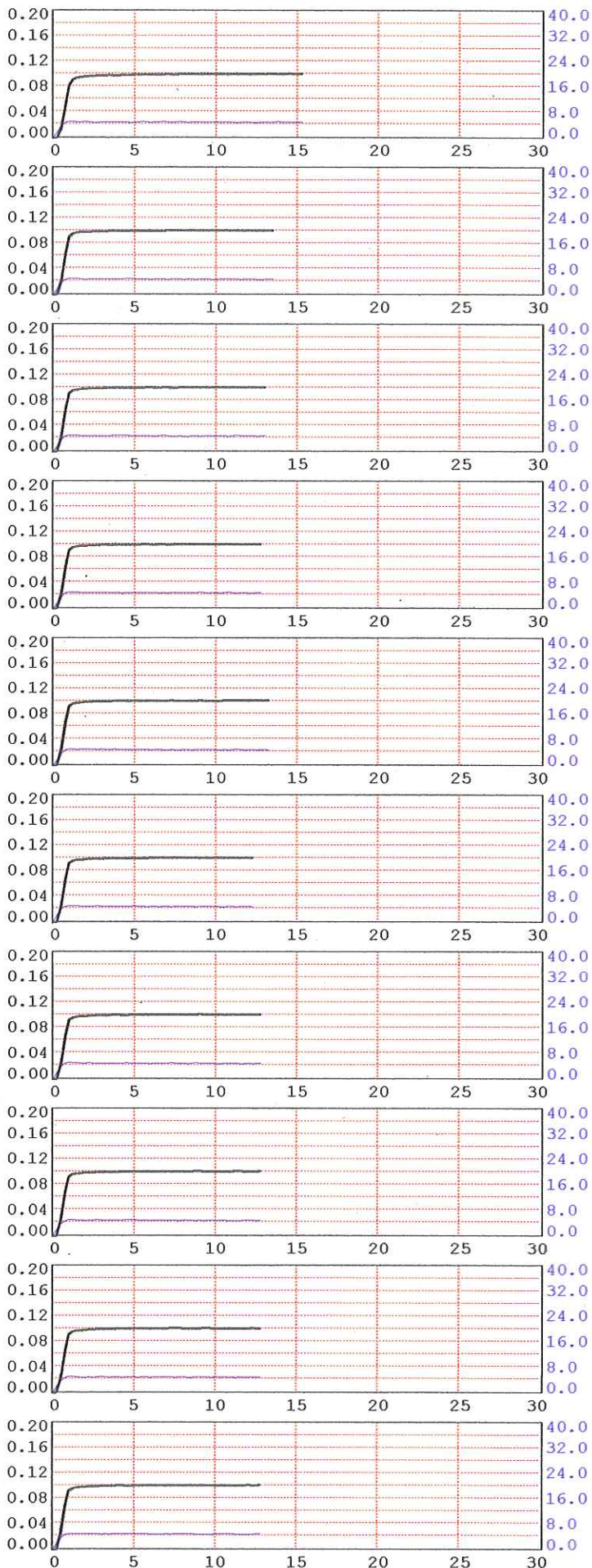
SOLUTION LOT #: 12-61-100

SOLUTION CONCENTRATION: 0.101

BLANK TEST	0.000	09:05
CALIBRATION CHECK	PASSED	09:06
SIMULATOR VAPOR 34.0°C	0.100	09:06
SIMULATOR VAPOR 34.0°C	0.101	09:07
SIMULATOR VAPOR 34.1°C	0.101	09:08
SIMULATOR VAPOR 34.0°C	0.101	09:09
SIMULATOR VAPOR 34.0°C	0.102	09:10
SIMULATOR VAPOR 34.0°C	0.101	09:11
SIMULATOR VAPOR 34.1°C	0.101	09:12
SIMULATOR VAPOR 34.0°C	0.101	09:13
SIMULATOR VAPOR 34.0°C	0.101	09:14
SIMULATOR VAPOR 34.0°C	0.101	09:15
BLANK TEST	0.000	09:16

Average = 0.101

Std Dev = 0.000





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100156

Date: 12/24/2012

Time: 09:19:34

SUPERVISOR NAME:

RCD SECOND SOURCE CAL CHK

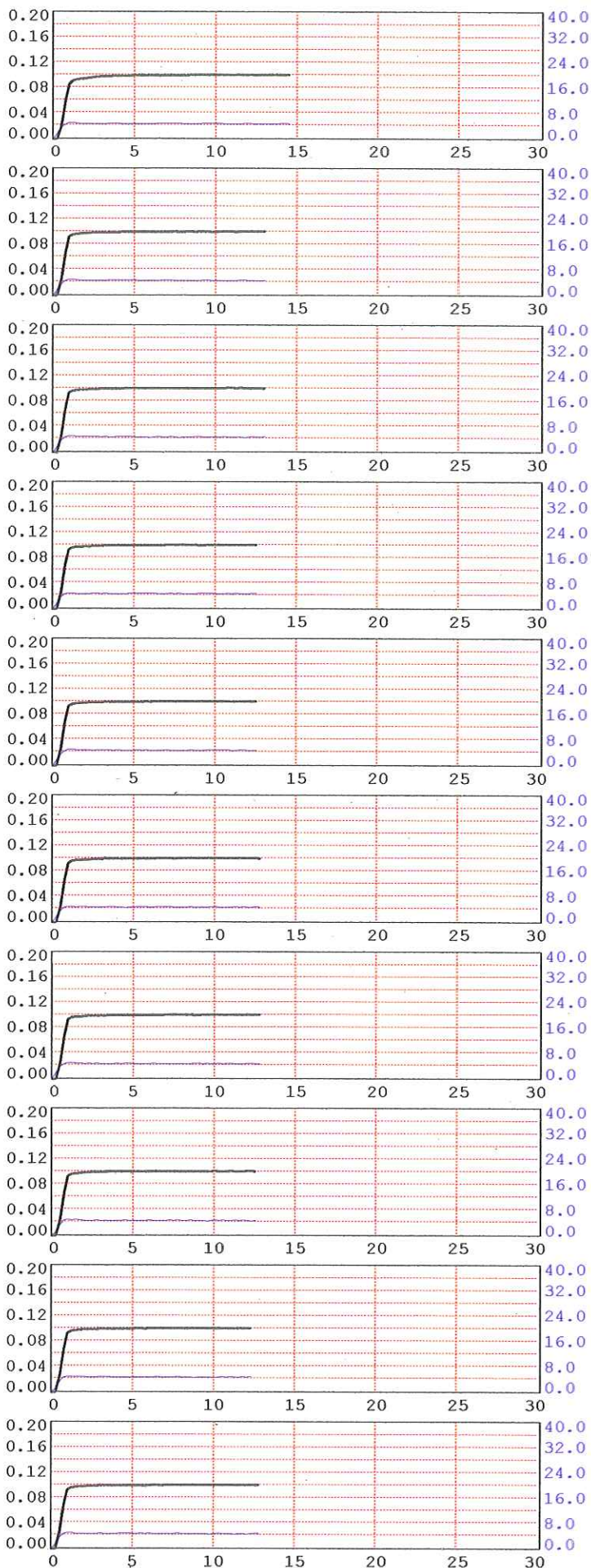
SOLUTION LOT #: GUTH 11250

SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	09:20
CALIBRATION CHECK	PASSED	09:20
SIMULATOR VAPOR 34.0°C	0.101	09:20
SIMULATOR VAPOR 34.0°C	0.101	09:21
SIMULATOR VAPOR 34.0°C	0.101	09:23
SIMULATOR VAPOR 34.0°C	0.101	09:24
SIMULATOR VAPOR 34.0°C	0.101	09:25
SIMULATOR VAPOR 34.0°C	0.101	09:26
SIMULATOR VAPOR 34.0°C	0.101	09:27
SIMULATOR VAPOR 34.0°C	0.101	09:28
SIMULATOR VAPOR 34.0°C	0.101	09:29
SIMULATOR VAPOR 34.0°C	0.101	09:30
BLANK TEST	0.000	09:31

Average = 0.101

Std Dev = 0.000



CERTIFICATION REPORT

DataMaster DMT: 100156
Calibration Date: 12/24/2012
Certification Date: 12/24/2012
Certified by: ROBERT DRISCOLL



Diagnostic Results

VERSIONS

DMT: 1.01
PIC: 2.05
Modem: 2.4
Questions: 2.1

TEMPERATURES

Sample Chamber = 48.8°C
Breath Tube = 45.2°C
Digital Sim = 34.0°C

SETTINGS

Lamp Voltage = 1.86 V
Cooler Voltage = 1.82 V
Bias Voltage = 80 V
Chopper Freq = 549 Hz

PUMP INFO

Flow Rate = 6.028 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX (V)	0.0079	0.0112
MIN (V)	0.0067	0.0096

FILTER INFO

Filter 1	0.009	Zero = true
Filter 2	0.143	Zero = true
Filter 3	1.130	Zero = true

CALIBRATION CHECK

Xq = 0.085 0.10%

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

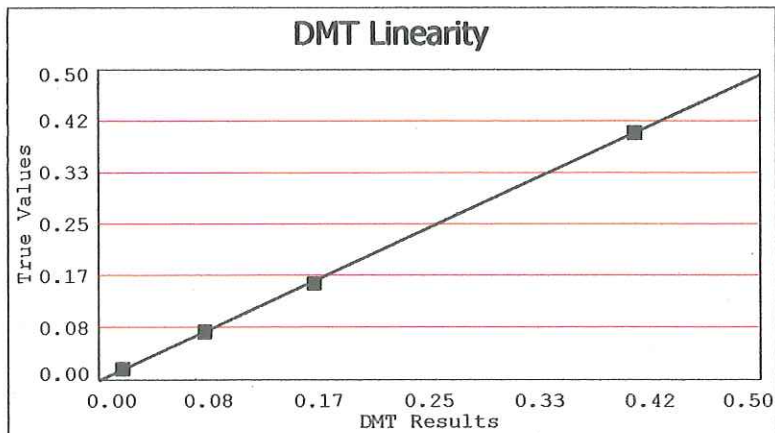
Software Configuration

Data Collection..... yes

Linearity Check Results

True Value	Reported Average	Std Dev
0.019 g/210L	0.018 g/210L	0.0000
Lot # 12-78-020		
0.079 g/210L	0.080 g/210L	0.0000
Lot # 12-74-080		
0.157 g/210L	0.163 g/210L	0.0000
Lot # 12-83-160		
0.399 g/210L	0.405 g/210L	0.0010
Lot # 12-82-400		

$R^2 = 0.9998$



Acetone Interference Test

Lot # 12-81-081A1

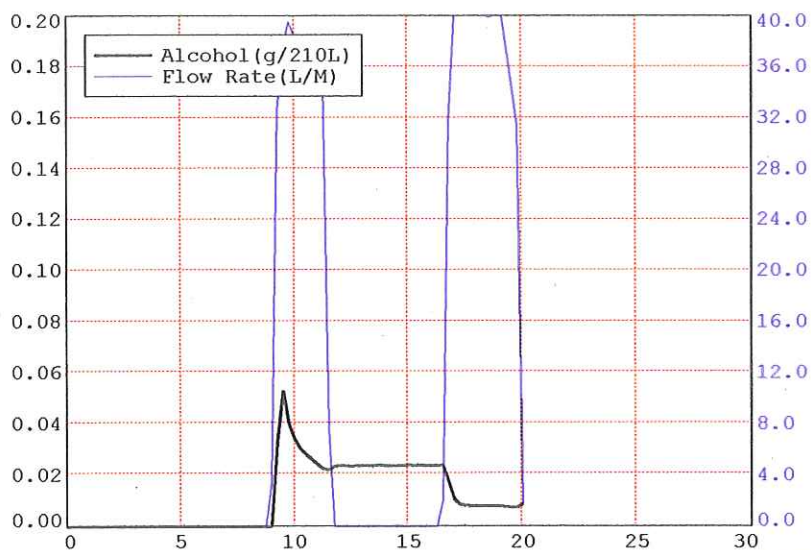
Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

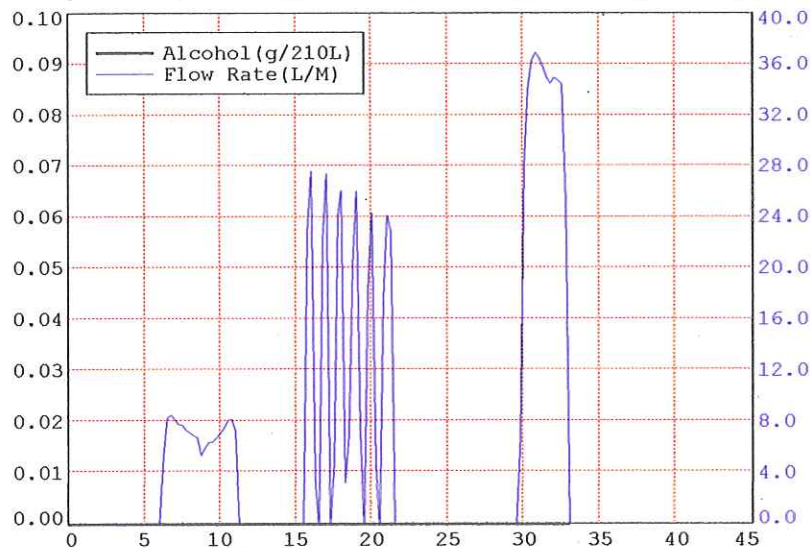
RF Detection Test

Passed



Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by

ALB

Date

12/24/2012

Reviewed by

ALB

Date

12/26/12

DMT Serial Number #100156

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12/24/2012 10:42 AM

12/26/12
ALB
ALB

CALIBRATION REPORT

DataMaster DMT: 100156
Calibration Date: 12/21/2012
Calibrated by: ROBERT DRISCOLL
Lot: 12-71-100



Ca	=	0.100		
CAL	=	0.977392	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	=	0.085	0.050	<= Xq < 0.200
a21	=	1.194837	1.050	<= a21 < 1.300
a31	=	0.445591	0.300	<= a31 < 0.800

Performed by

Handwritten signature

Date

12/21/2012

Handwritten signature and date 12/20/12

Handwritten signature



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100156

Date: 12/21/2012

Time: 14:17:02

SUPERVISOR NAME:
ROBERT DRISCOLL

*CAL CHECK RCD
12/21/12*

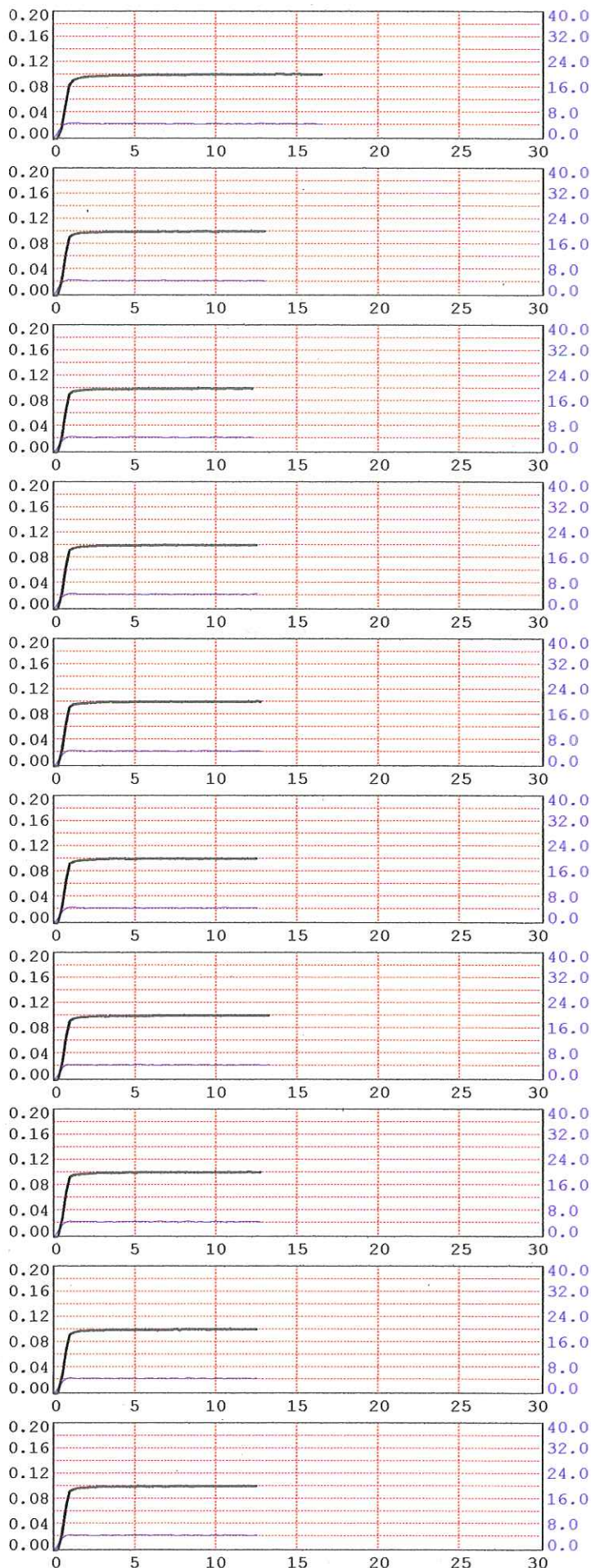
SOLUTION LOT #: 12-61-100

SOLUTION CONCENTRATION: 0.101

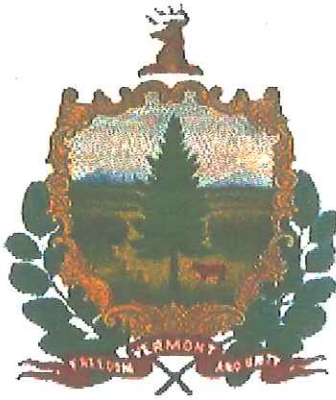
BLANK TEST	0.000	14:17
CALIBRATION CHECK	PASSED	14:18
SIMULATOR VAPOR 34.1°C	0.101	14:18
SIMULATOR VAPOR 34.0°C	0.101	14:19
SIMULATOR VAPOR 34.0°C	0.100	14:20
SIMULATOR VAPOR 33.9°C	0.101	14:21
SIMULATOR VAPOR 34.0°C	0.101	14:22
SIMULATOR VAPOR 34.0°C	0.101	14:23
SIMULATOR VAPOR 33.9°C	0.101	14:24
SIMULATOR VAPOR 34.0°C	0.101	14:25
SIMULATOR VAPOR 34.0°C	0.100	14:26
SIMULATOR VAPOR 34.0°C	0.101	14:27
BLANK TEST	0.000	14:28

Average = 0.100

Std Dev = 0.000



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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100156

Date: 12/21/2012

Time: 14:32:06

SUPERVISOR NAME:

RCD SECOND SRC CAL CHK

SOLUTION LOT #: GUTH 11250

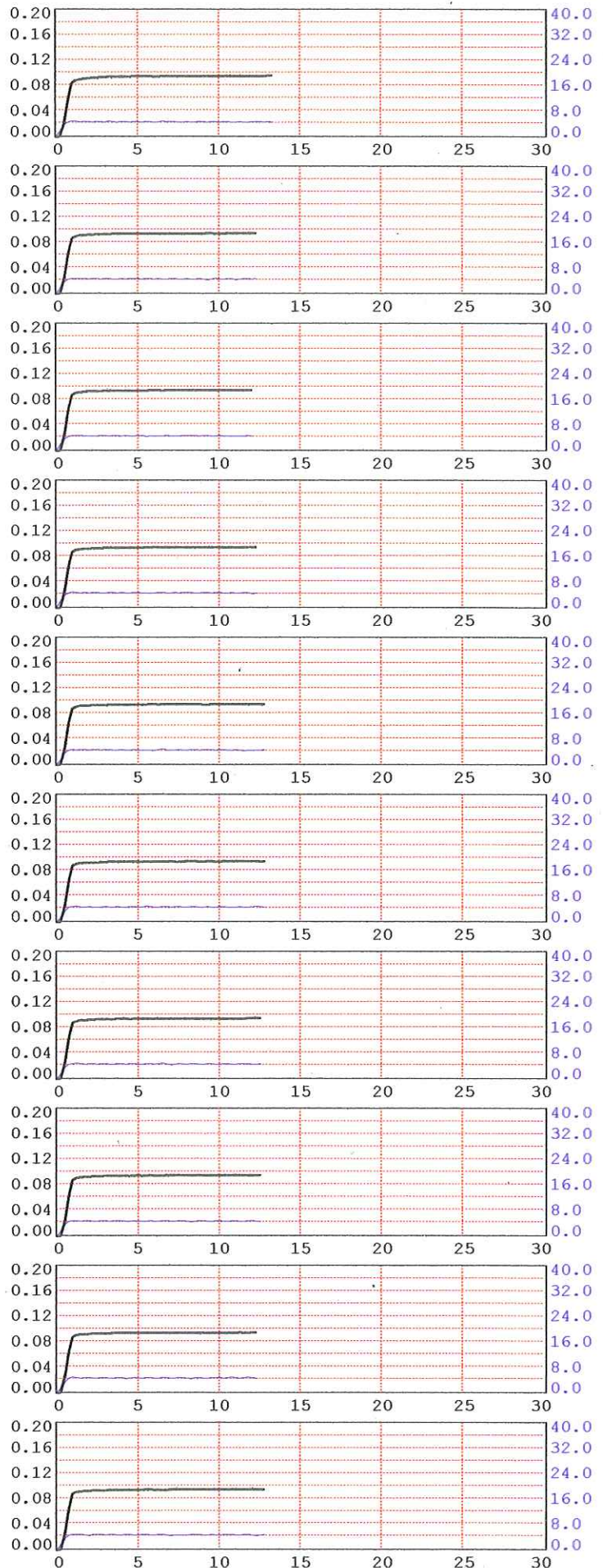
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	14:33
CALIBRATION CHECK	PASSED	14:33
SIMULATOR VAPOR 34.0°C	0.095	14:33
SIMULATOR VAPOR 34.0°C	0.094	14:34
SIMULATOR VAPOR 33.9°C	0.095	14:35
SIMULATOR VAPOR 34.0°C	0.095	14:36
SIMULATOR VAPOR 34.0°C	0.095	14:37
SIMULATOR VAPOR 34.0°C	0.095	14:38
SIMULATOR VAPOR 34.0°C	0.094	14:39
SIMULATOR VAPOR 34.0°C	0.095	14:40
SIMULATOR VAPOR 34.0°C	0.094	14:41
SIMULATOR VAPOR 34.0°C	0.095	14:42
BLANK TEST	0.000	14:43

Average = 0.094

Std Dev = 0.000

replaced solution
RCD
12/21/12



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AKB



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100156

Date: 12/21/2012

Time: 15:16:10

SUPERVISOR NAME:

RCD SECOND SRC CAL CHECK

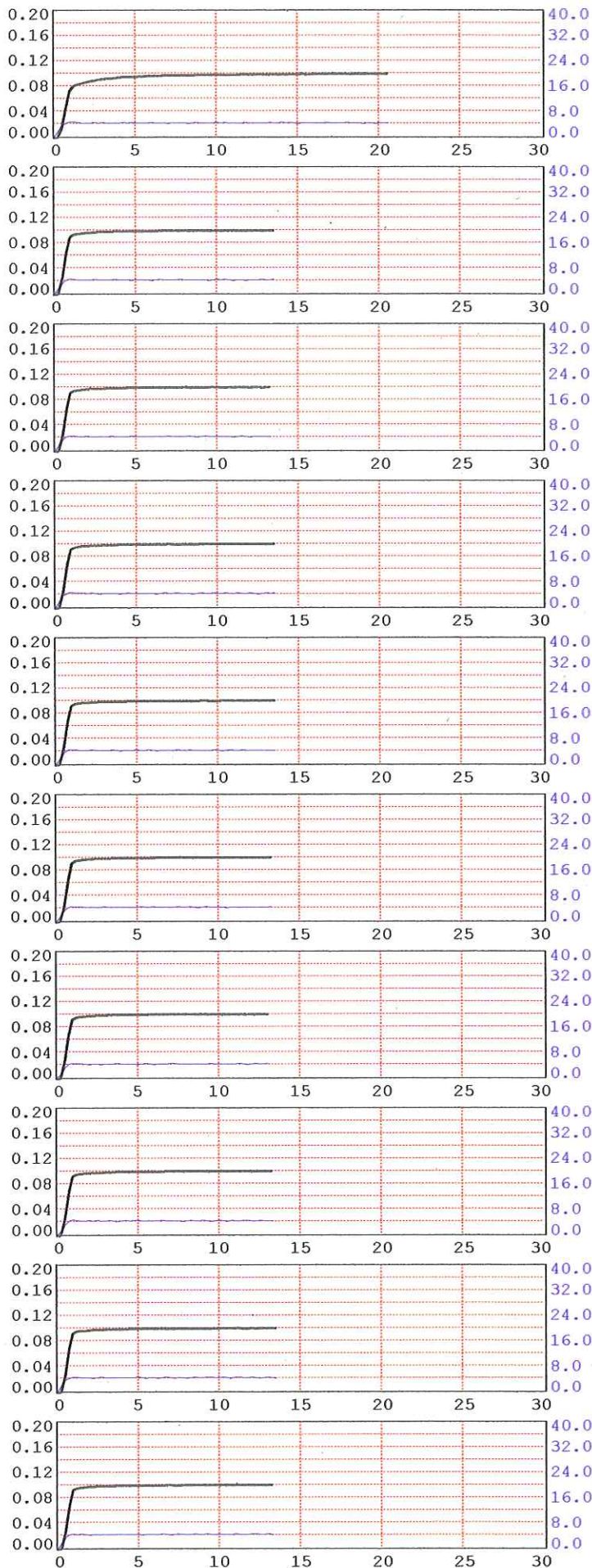
SOLUTION LOT #: GUTH 11250

SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	15:17
CALIBRATION CHECK	PASSED	15:17
SIMULATOR VAPOR 34.0°C	0.100	15:17
SIMULATOR VAPOR 34.1°C	0.100	15:18
SIMULATOR VAPOR 34.0°C	0.100	15:19
SIMULATOR VAPOR 34.0°C	0.101	15:20
SIMULATOR VAPOR 34.0°C	0.100	15:21
SIMULATOR VAPOR 34.0°C	0.101	15:22
SIMULATOR VAPOR 34.0°C	0.101	15:24
SIMULATOR VAPOR 34.0°C	0.101	15:25
SIMULATOR VAPOR 34.0°C	0.100	15:26
SIMULATOR VAPOR 34.0°C	0.101	15:27
BLANK TEST	0.000	15:28

Average = 0.100

Std Dev = 0.000



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