Royalton VSP
Windsor County D1708

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SECTION 1

RESULTS

Packing List
From: National Patent Analytical Systems Inc.
2090 Harrington Mem. Rd., Mansfield, Ohio 44903

Cust No. VT1678J Ord Date 8/23/11
Sales Order No. 44586

Ship Date 9/2/11
Packing List No. 68833

Cust Purch Ord No. KURT KIMBLE

Ship To:
Vermont Dept of Health
195 Colchester Avenue
Burlington Vt 05401

Bill To:
Vermont Dept of Health
P O Box 70
Burlington Vt 05402

25.00
Freight

Attn:

Ship Via FedEx

Comments Service for Instrument Serial Number 101708

Inv Part No	Quantity Ordered	This Shipment	Back Ordered	Total Ship To Date	Description	Customer Part No.	Drawing Part No. / Rev
9DMT	1.0	1		1.0	DATAMASTER DMT SERVICE RETURN		
S/N 101708						None Given	No Draw # / NONE / No Date
Serial Nos.	101708						

opened 9/7/11 1349 [illegible]

opened KMK 9-7-11

QA
100
9-1-11

National Patent
Analytical Systems, Inc.

On this date 8/23/11, NPAS received instrument # 101708.

The instrument was sent from the Vermont Department of Health (VDH) so that NPAS could install updated software as well as inspect the instrument. At NPAS' request VDH provided copies of the Technical Support Inquiries (TSI) regarding the instrument. The calibration history of the instrument remained in the instrument so that NPAS could review its history.

NPAS examined the internal configuration of the instrument and did / (did not) find physical manipulation or tampering of the components located within the instrument itself.

NPAS did performance and accuracy checks on a certified 0.100 ethanol standard. NPAS found that the instrument (passed) / failed the performance and accuracy checks.

NPAS reviewed the instrument as to its DataMaster DMT Inspection, QA and Conformance Testing Procedure and the instrument (performed) / did not perform within its procedure.

NPAS examined the calibration records and did / (did not) observe anomalies.

NPAS testing indicates that there is no reason why this instrument would not have performed accurately and reliably in the field.

Print Name of Evaluator: Michael J. Barbely Jr.

Signature of Evaluator and Date: Michael J. Barbely Jr 8/30/11

Print Name of Reviewer: DAVID RADOMSKI

Signature of Reviewer and Date: David Radomski 9/2/11

KRAC
9-7-11

2090 Harrington Memorial Road, Mansfield, Ohio 44901 Ph 419-526-6727 Fax 419-526-9446

DataMaster DMT Serial Number 101708

Power Up	CAL Factor	In-House & 2nd Source Calibration Check			Simulator Assignment	Certification	0.01% Acet. in 0.08% EtOH	0.04% MeOH in H_2O	0.04% IPA in H_2O	0.01% Acet. in 0.04% EtOH	0.02% Acet. in 0.04% EtOH	0.04% MeOH in 0.08% EtOH	0.04% IPA in 0.08% EtOH
		NIST Temp. °C	Lot. #	Result (g/210L)									
Completed 09/08/11 sm RKK	1.013815 09/08/11 sm RKK	34.0	11-39-100	0.100 09/08/11 sm RKK	G7547 RKK 9-16-11 GH	09/08/11 sm RKK	09/12/11 sm 100% RKK	09/12/11 sm 100% RKK	100% 09/12/11 sm RKK 9-13-11	100% 09/08/11 sm RKK	100% 09/08/11 sm RKK	100% 09/12/11 sm RKK	100% 09/13/11 sm RKK
		34.0	Guth 11050	0.100 RKK 9-8-11 sm 09/13/11									

Linearity Test #1	Linearity Test #2	Linearity Test #3	Linearity Test #4	Linearity Test #5	Data Download	In-House & 2nd Source Calibration Check		
						NIST Temp.°C	Lot. #	Result (g/210L)
09/09/11 sm RKK 9-12-11	09/12/11 sm RKK	09/12/11 sm RKK	09/13/11 sm RKK	09/13/11 sm RKK	09/13/11 sm RKK	34.1	11-39-100	0.099 09/13/11 sm RKK
						34.0	Guth 11050	0.100 09/13/11 sm RKK

Notes: Power up started 9/7/11 RKK AB

Calibration Solution NIST Temp: 33.9°C 09/08/11 sm RKK

H_2O NIST Temp: 34.0°C 09/08/11 sm RKK

Software update 9/8/11 RKK sm

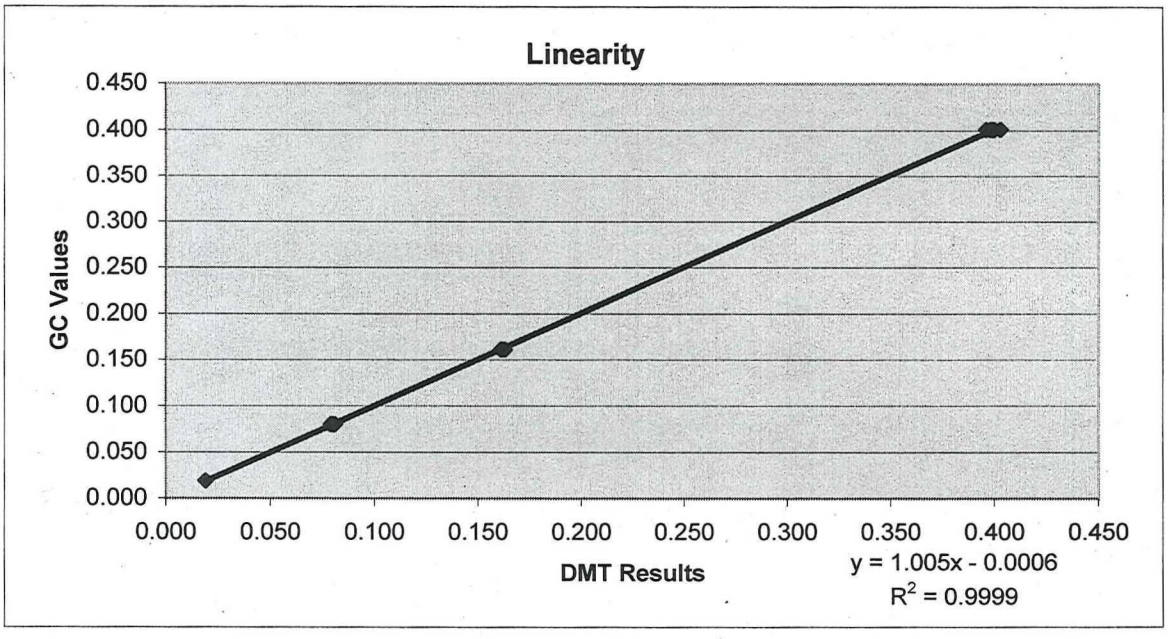
Analyst: 09/15/11

Reviewer: 9/16/11

Reviewer: RKK 9-16-11

DataMaster DMT Serial Number 101708

Operator	Date	GC Value	DMT Average	Std Dev	% Recovery
SRM	9/9/2011	0.019	0.019	0.000	100
SRM	9/9/2011	0.080	0.081	0.000	101
SRM	9/9/2011	0.161	0.162	0.000	100
SRM	9/9/2011	0.401	0.403	0.000	100
SRM	9/12/2011	0.019	0.019	0.000	100
SRM	9/12/2011	0.080	0.080	0.000	100
SRM	9/12/2011	0.161	0.162	0.000	100
SRM	9/12/2011	0.401	0.399	0.000	99
SRM	9/12/2011	0.019	0.019	0.000	100
SRM	9/12/2011	0.080	0.079	0.000	98
SRM	9/12/2011	0.161	0.161	0.000	100
SRM	9/12/2011	0.401	0.400	0.001	99
SRM	9/13/2011	0.019	0.019	0.000	100
SRM	9/13/2011	0.080	0.079	0.000	98
SRM	9/13/2011	0.161	0.161	0.000	100
SRM	9/13/2011	0.401	0.398	0.001	99
SRM	9/13/2011	0.019	0.019	0.000	100
SRM	9/13/2011	0.080	0.081	0.000	101
SRM	9/13/2011	0.161	0.163	0.000	101
SRM	9/13/2011	0.401	0.396	0.000	98
			Average	0.0001	100
			Std Dev	0.0003	
			Range	0.000 - 0.001	98 - 101



SECTION 2

POWER UP TESTS

CALIBRATION REPORT

DataMaster DMT: 101708
Calibration Date: 09/08/2011
Calibrated by: STEVEN R MERRILL
Lot: 11-37-100

Ca	= 0.100		
CAL	= 1.013815	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	= 0.085	0.050	<= Xq < 0.200
a21	= 1.217737	1.050	<= a21 < 1.300
a31	= 0.423523	0.300	<= a31 < 0.800

Performed by _____ Date 09/08/2011

DIAGNOSTIC RESULT

DataMaster DMT: 101708
Location:
Calibration Date: 09/08/2011
Certification Date:
Installation Date:
Test Date: 09/08/2011
Test Time: 09:37:56

```
VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube    = 48.1°C
Digital Sim    = 34.1°C

SETTINGS
Lamp Voltage   = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage   = 80 V
Chopper Freq   = 535 Hz

PUMP INFO
Flow Rate = 6.097 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)    0.0075     0.0104
MIN(V)    0.0059     0.0087

FILTER INFO
Filter 1   0.009  Zero = true
Filter 2   0.621  Zero = true
Filter 3   0.747  Zero = true

CALIBRATION CHECK
Xq  = 0.085  0.51%
```

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/08/2011
Time: 09:46:12

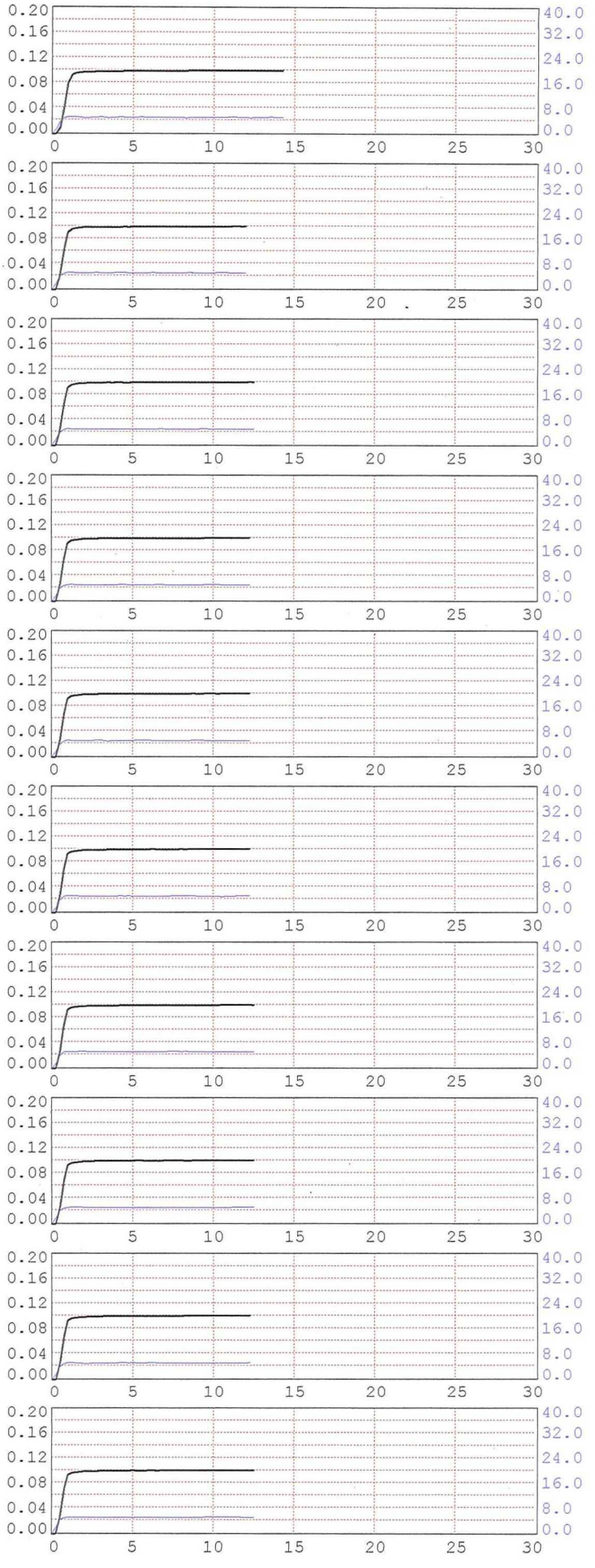
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 11-39-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	09:47
CALIBRATION CHECK	PASSED	09:47
SIMULATOR VAPOR 34.1°C	0.100	09:47
SIMULATOR VAPOR 34.0°C	0.100	09:48
SIMULATOR VAPOR 34.0°C	0.100	09:49
SIMULATOR VAPOR 34.1°C	0.100	09:50
SIMULATOR VAPOR 34.0°C	0.100	09:51
SIMULATOR VAPOR 34.1°C	0.101	09:52
SIMULATOR VAPOR 34.0°C	0.100	09:53
SIMULATOR VAPOR 34.0°C	0.101	09:54
SIMULATOR VAPOR 34.1°C	0.101	09:56
SIMULATOR VAPOR 34.0°C	0.101	09:57
BLANK TEST	0.000	09:57

Average = 0.100
Std Dev = 0.000

In house Cal Check
9-8-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/08/2011
Time: 10:26:39

SUPERVISOR NAME:
STEVEN R MERRILL

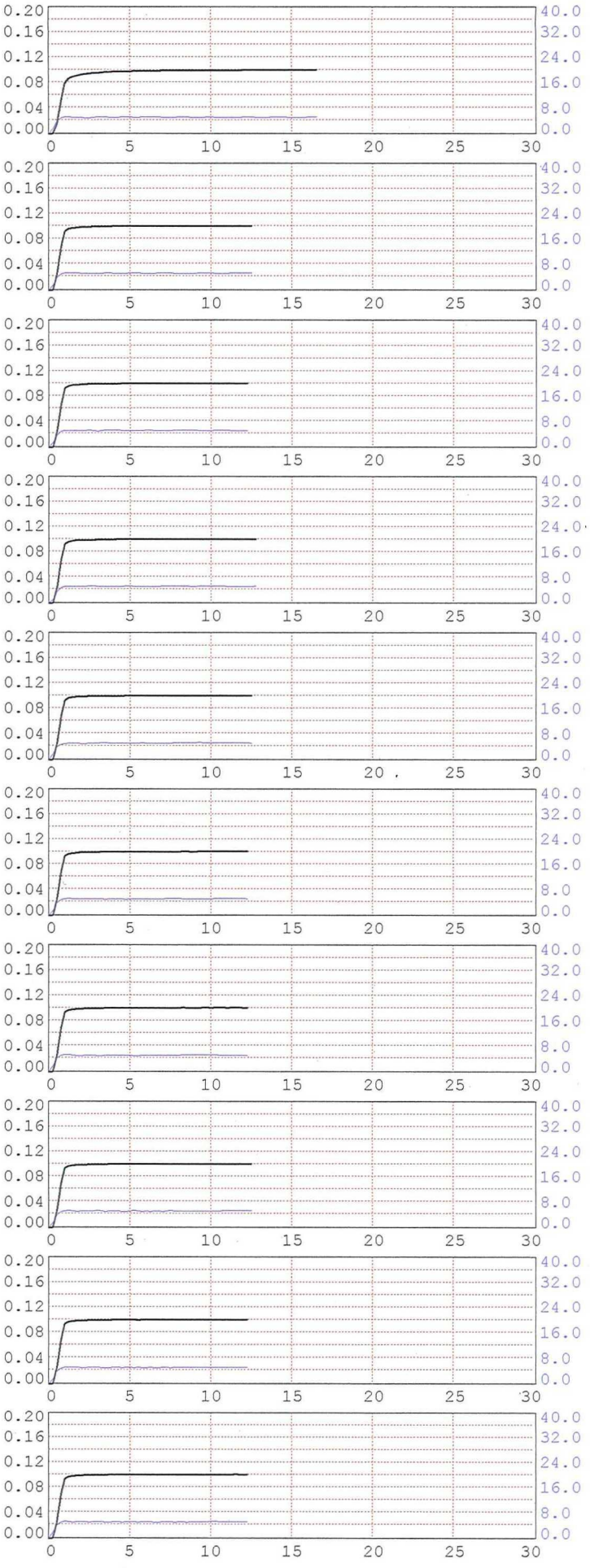
SOLUTION LOT #: GUTH 11050
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	10:27
CALIBRATION CHECK	PASSED	10:27
SIMULATOR VAPOR 34.0°C	0.100	10:28
SIMULATOR VAPOR 34.1°C	0.101	10:29
SIMULATOR VAPOR 34.0°C	0.101	10:30
SIMULATOR VAPOR 34.1°C	0.101	10:31
SIMULATOR VAPOR 34.1°C	0.101	10:32
SIMULATOR VAPOR 34.0°C	0.101	10:33
SIMULATOR VAPOR 34.1°C	0.101	10:34
SIMULATOR VAPOR 34.1°C	0.101	10:35
SIMULATOR VAPOR 34.1°C	0.101	10:36
SIMULATOR VAPOR 34.0°C	0.101	10:37
BLANK TEST	0.000	10:38

Average = 0.100
Std Dev = 0.000

2nd Source Cal Check 09/08/11

9-9-11



CERTIFICATION REPORT

DataMaster DMT: 101708
Calibration Date: 09/08/2011
Certification Date: 09/08/2011
Certified by: STEVEN R MERRILL

Diagnostic Results

```
VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube    = 48.1°C
Digital Sim    = 34.0°C

SETTINGS
Lamp Voltage   = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage   = 80 V
Chopper Freq   = 535 Hz

PUMP INFO
Flow Rate = 6.109 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)   0.0187     0.0209
MIN(V)   0.0169     0.0189

FILTER INFO
Filter 1   0.020  Zero = true
Filter 2   0.628  Zero = true
Filter 3   0.762  Zero = true

CALIBRATION CHECK
Xq  = 0.085  0.10%
```

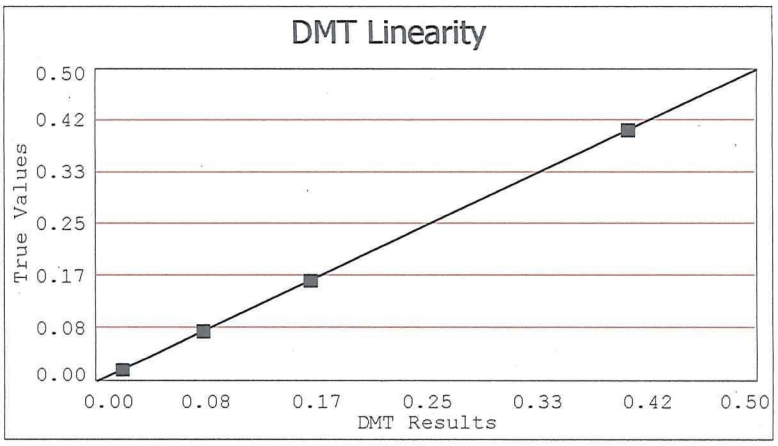
Options

```
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 Lot # 12-07-020	0.020 g/210L	0.0000
0.080 g/210L Lot # 12-11-080	0.081 g/210L	0.0000
0.161 g/210L Lot # 12-12-160	0.162 g/210L	0.0000
0.401 g/210L Lot # 12-08-400	0.402 g/210L	0.0010

$R^2 = 1$



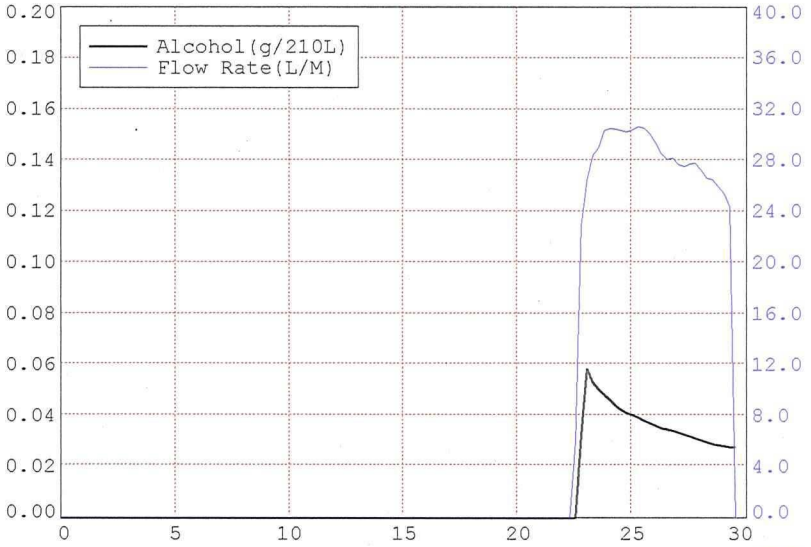
Acetone Interference Test

Lot # 12-09-080A1

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

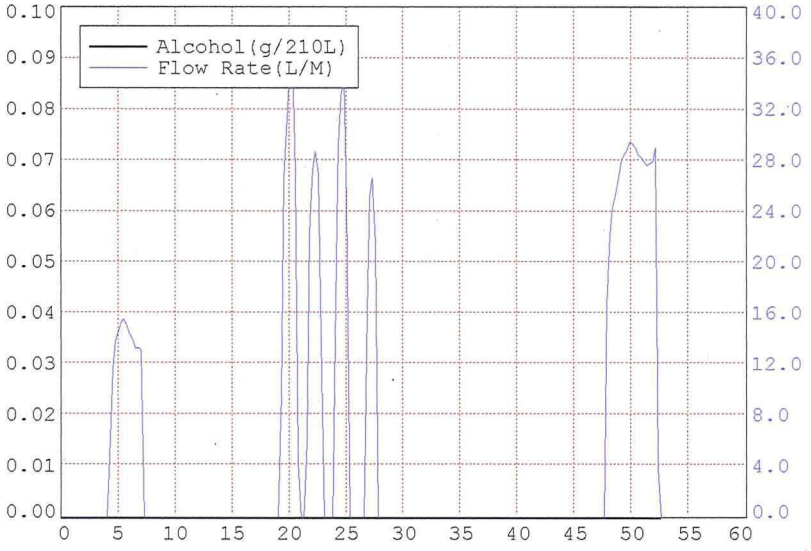


RF Detection Test

Passed

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by _____ Date 09/08/2011

Reviewed by _____ Date 9-8-11

SECTION 3

LINEARITY TESTS

DIAGNOSTIC RESULT

DataMaster DMT: 101708
Location:
Calibration Date: 09/08/2011
Certification Date: 09/08/2011
Installation Date:
Test Date: 09/09/2011
Test Time: 11:38:16

```
VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube    = 48.1°C
Digital Sim    = 0.0°C

SETTINGS
Lamp Voltage   = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage   = 80 V
Chopper Freq   = 537 Hz

PUMP INFO
Flow Rate = 6.047 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)    0.0116     0.0142
MIN(V)    0.0104     0.0126

FILTER INFO
Filter 1   0.012  Zero = true
Filter 2   0.623  Zero = true
Filter 3   0.756  Zero = true

CALIBRATION CHECK
Xq  = 0.085  0.00%
```

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/09/2011
Time: 11:42:05

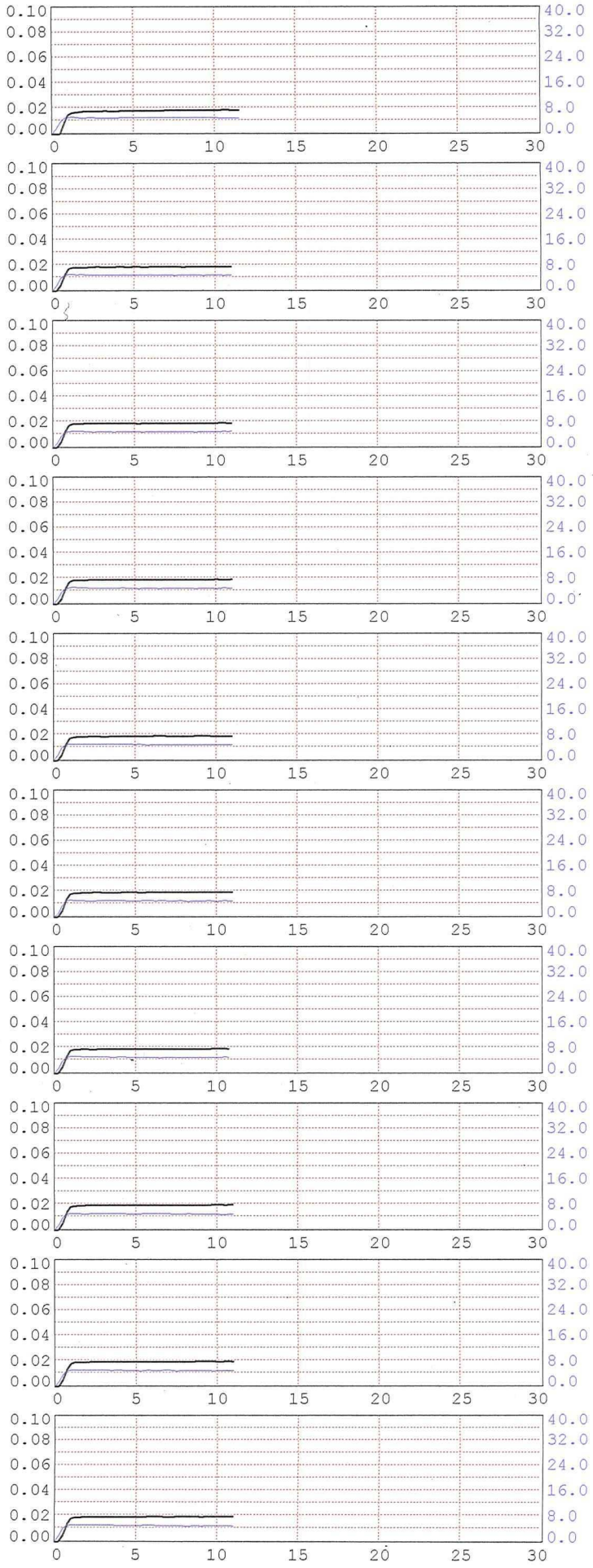
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-07-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	11:42
CALIBRATION CHECK	PASSED	11:43
SIMULATOR VAPOR 34.0°C	0.019	11:43
SIMULATOR VAPOR 34.1°C	0.020	11:44
SIMULATOR VAPOR 34.0°C	0.020	11:45
SIMULATOR VAPOR 34.0°C	0.020	11:46
SIMULATOR VAPOR 34.1°C	0.020	11:47
SIMULATOR VAPOR 34.0°C	0.020	11:48
SIMULATOR VAPOR 33.9°C	0.020	11:49
SIMULATOR VAPOR 34.0°C	0.020	11:50
SIMULATOR VAPOR 34.0°C	0.020	11:51
SIMULATOR VAPOR 34.0°C	0.020	11:52
BLANK TEST	0.000	11:53

Average = 0.019
Std Dev = 0.000

L1 09/09/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/09/2011
Time: 11:56:28

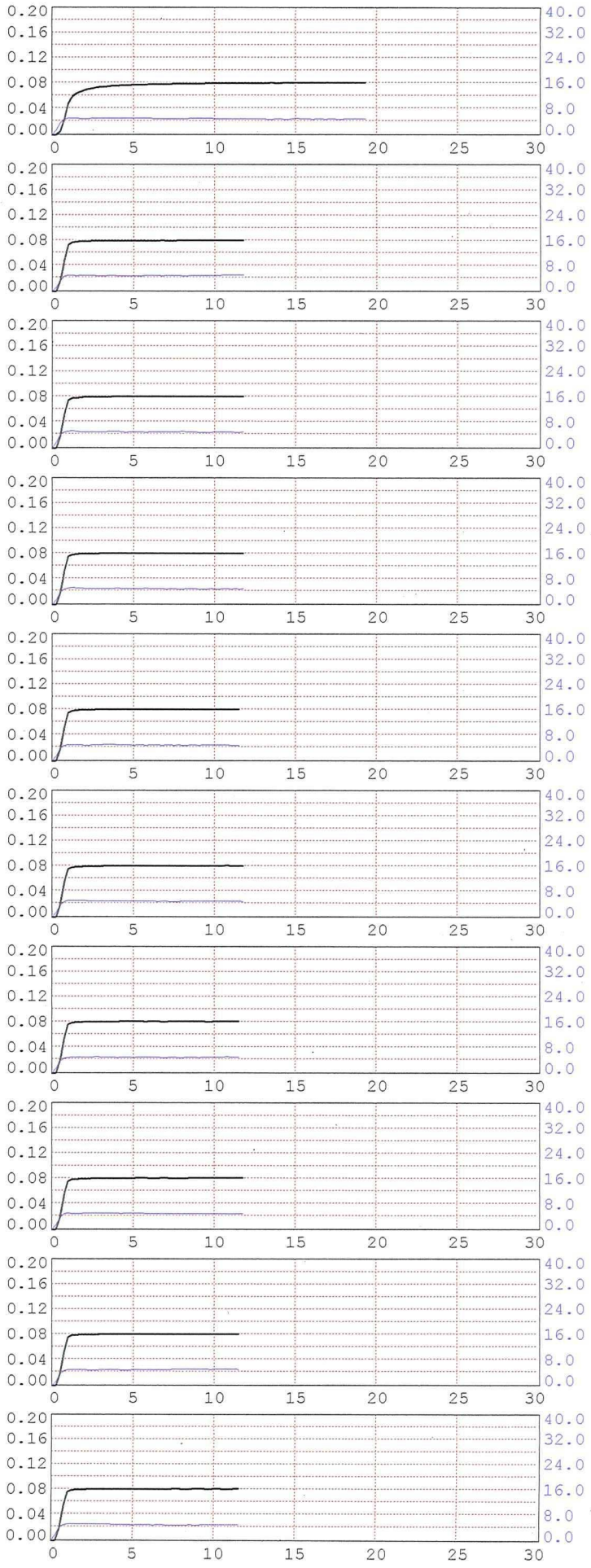
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-11-080
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	11:57
CALIBRATION CHECK	PASSED	11:57
SIMULATOR VAPOR 34.1°C	0.081	11:57
SIMULATOR VAPOR 34.1°C	0.081	11:58
SIMULATOR VAPOR 34.0°C	0.081	11:59
SIMULATOR VAPOR 34.0°C	0.081	12:01
SIMULATOR VAPOR 34.1°C	0.081	12:02
SIMULATOR VAPOR 34.0°C	0.081	12:03
SIMULATOR VAPOR 34.1°C	0.081	12:04
SIMULATOR VAPOR 34.0°C	0.082	12:05
SIMULATOR VAPOR 34.1°C	0.081	12:06
SIMULATOR VAPOR 34.0°C	0.081	12:07
BLANK TEST	0.000	12:08

Average = 0.081
Std Dev = 0.000

LI 09/09/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/09/2011
Time: 12:41:56

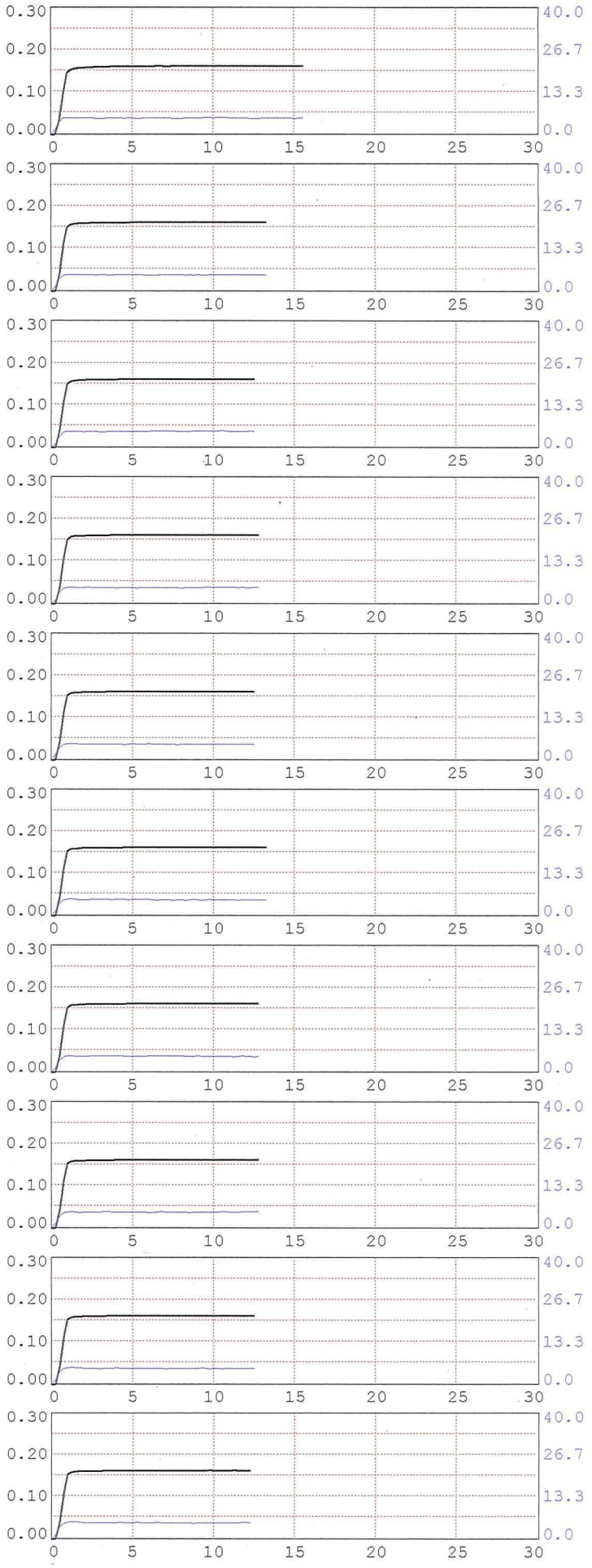
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-12-160
SOLUTION CONCENTRATION: 0.161

BLANK TEST	0.000	12:42
CALIBRATION CHECK	PASSED	12:42
SIMULATOR VAPOR 34.0°C	0.162	12:43
SIMULATOR VAPOR 34.0°C	0.162	12:44
SIMULATOR VAPOR 34.0°C	0.162	12:45
SIMULATOR VAPOR 34.0°C	0.162	12:46
SIMULATOR VAPOR 34.0°C	0.162	12:47
SIMULATOR VAPOR 34.0°C	0.162	12:48
SIMULATOR VAPOR 34.0°C	0.162	12:49
SIMULATOR VAPOR 34.0°C	0.162	12:50
SIMULATOR VAPOR 34.0°C	0.162	12:51
SIMULATOR VAPOR 34.0°C	0.162	12:52
BLANK TEST	0.000	12:53

Average = 0.162
Std Dev = 0.000

LI 09/09/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/09/2011
Time: 12:56:10

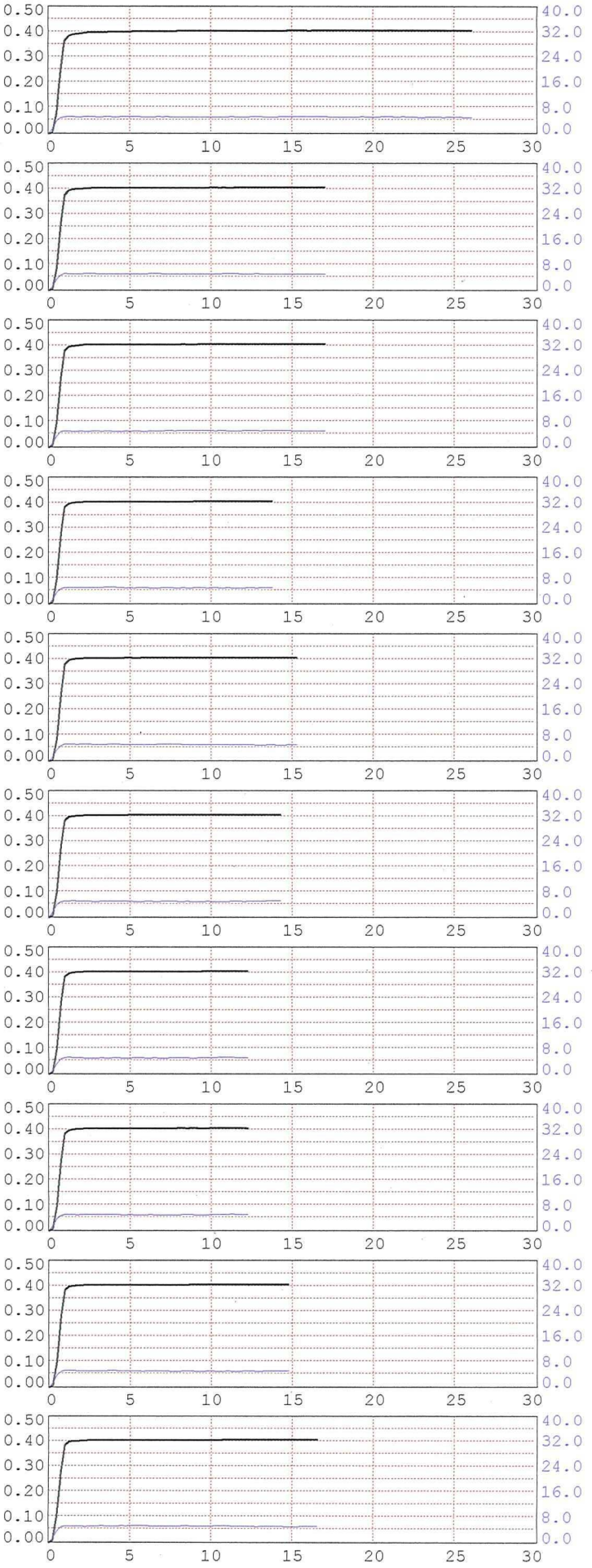
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-08-400
SOLUTION CONCENTRATION: 0.401

BLANK TEST	0.000	12:57
CALIBRATION CHECK	PASSED	12:57
SIMULATOR VAPOR 34.1°C	0.404	12:57
SIMULATOR VAPOR 34.0°C	0.403	12:58
SIMULATOR VAPOR 34.0°C	0.403	13:00
SIMULATOR VAPOR 34.1°C	0.403	13:01
SIMULATOR VAPOR 34.0°C	0.404	13:02
SIMULATOR VAPOR 34.0°C	0.404	13:03
SIMULATOR VAPOR 34.0°C	0.402	13:04
SIMULATOR VAPOR 34.0°C	0.402	13:05
SIMULATOR VAPOR 34.1°C	0.403	13:06
SIMULATOR VAPOR 34.0°C	0.403	13:07
BLANK TEST	0.000	13:08

Average = 0.403
Std Dev = 0.000

LI 09/09/11



DIAGNOSTIC RESULT

DataMaster DMT: 101708
Location:
Calibration Date: 09/08/2011
Certification Date: 09/08/2011
Installation Date:
Test Date: 09/12/2011
Test Time: 08:34:11

```
VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube    = 48.1°C
Digital Sim    = 0.0°C

SETTINGS
Lamp Voltage   = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage   = 80 V
Chopper Freq   = 536 Hz

PUMP INFO
Flow Rate = 6.049 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)   -0.0134    -0.0104
MIN(V)   -0.0146    -0.0120

FILTER INFO
Filter 1  -0.012  Zero = true
Filter 2   0.601  Zero = true
Filter 3   0.730  Zero = true

CALIBRATION CHECK
Xq  = 0.085  0.31%
```

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 08:39:55

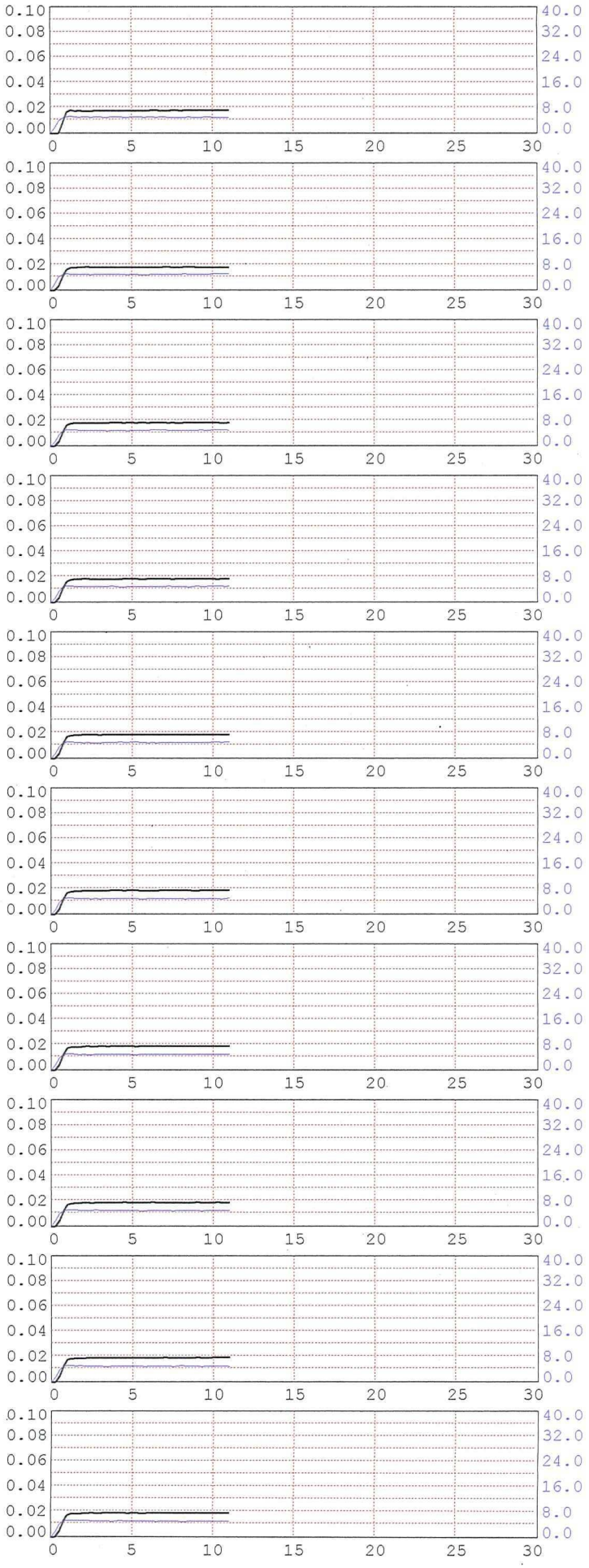
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-07-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	08:40
CALIBRATION CHECK	PASSED	08:40
SIMULATOR VAPOR 34.4°C	0.019	08:41
SIMULATOR VAPOR 34.2°C	0.019	08:42
SIMULATOR VAPOR 34.2°C	0.019	08:43
SIMULATOR VAPOR 34.2°C	0.019	08:44
SIMULATOR VAPOR 34.2°C	0.020	08:45
SIMULATOR VAPOR 34.2°C	0.020	08:46
SIMULATOR VAPOR 34.2°C	0.020	08:47
SIMULATOR VAPOR 34.2°C	0.019	08:48
SIMULATOR VAPOR 34.1°C	0.020	08:49
SIMULATOR VAPOR 34.2°C	0.020	08:50
BLANK TEST	0.000	08:51

Average = 0.019
Std Dev = 0.000

LJ 09/12/11 sm



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 09:47:34

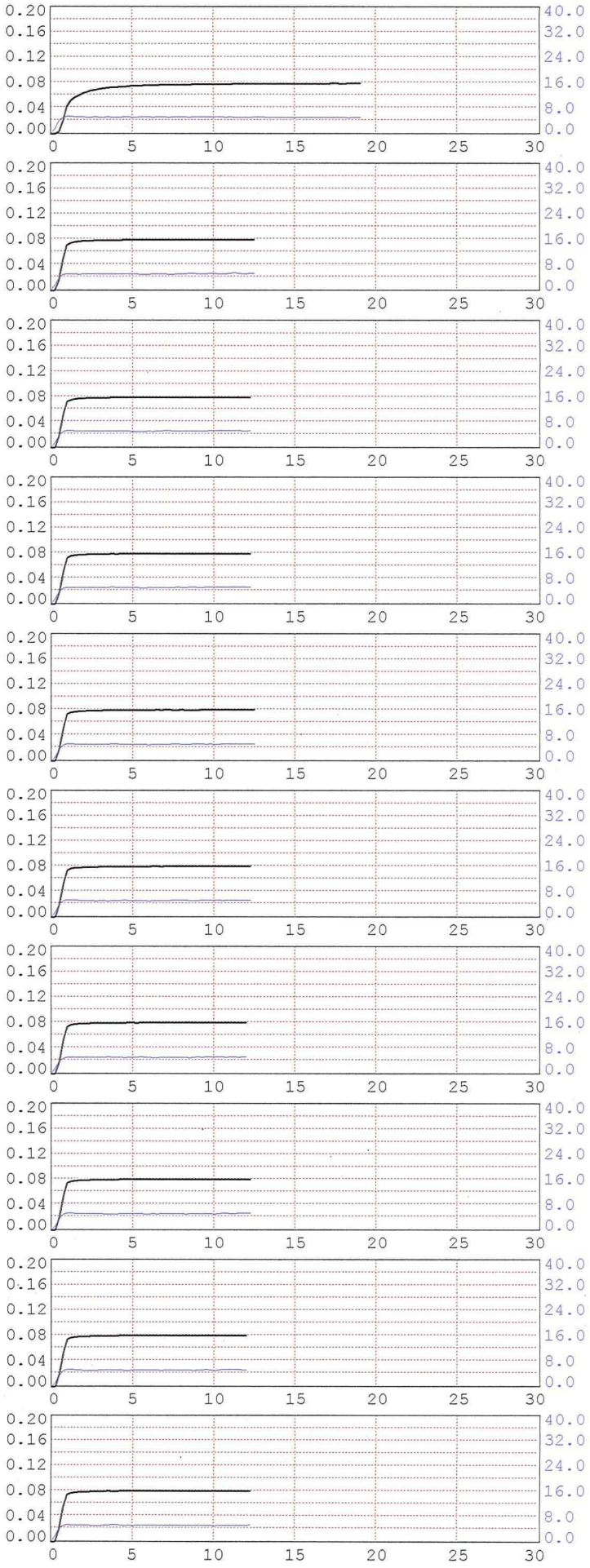
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-11-080
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	09:48
CALIBRATION CHECK	PASSED	09:48
SIMULATOR VAPOR 34.2°C	0.079	09:48
SIMULATOR VAPOR 34.1°C	0.080	09:50
SIMULATOR VAPOR 34.2°C	0.080	09:51
SIMULATOR VAPOR 34.1°C	0.080	09:52
SIMULATOR VAPOR 34.1°C	0.080	09:53
SIMULATOR VAPOR 34.2°C	0.080	09:54
SIMULATOR VAPOR 34.1°C	0.080	09:55
SIMULATOR VAPOR 34.2°C	0.081	09:56
SIMULATOR VAPOR 34.1°C	0.080	09:57
SIMULATOR VAPOR 34.1°C	0.080	09:58
BLANK TEST	0.000	09:59

Average = 0.080
Std Dev = 0.000

LJ 09/12/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 10:46:45

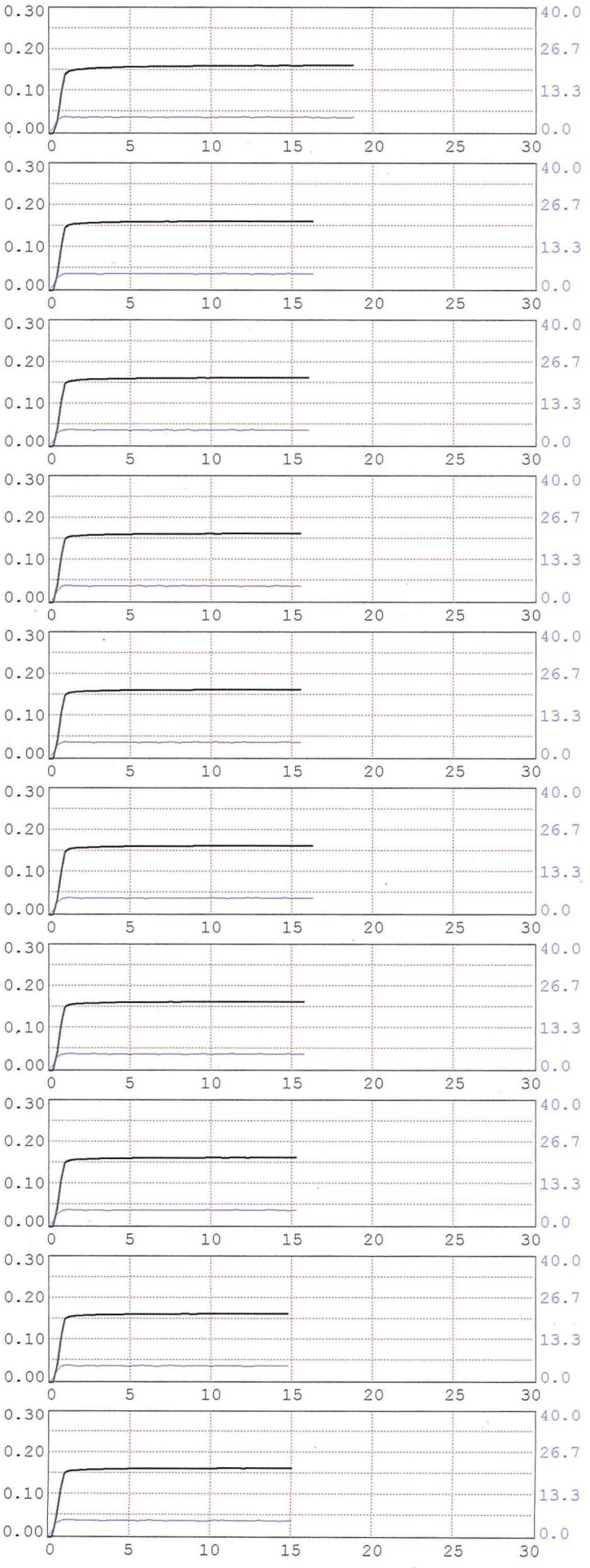
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-12-160
SOLUTION CONCENTRATION: 0.161

BLANK TEST	0.000	10:47
CALIBRATION CHECK	PASSED	10:47
SIMULATOR VAPOR 34.2°C	0.161	10:48
SIMULATOR VAPOR 34.2°C	0.162	10:49
SIMULATOR VAPOR 34.4°C	0.163	10:50
SIMULATOR VAPOR 34.2°C	0.163	10:51
SIMULATOR VAPOR 34.2°C	0.163	10:52
SIMULATOR VAPOR 34.1°C	0.163	10:53
SIMULATOR VAPOR 34.2°C	0.163	10:54
SIMULATOR VAPOR 34.1°C	0.163	10:56
SIMULATOR VAPOR 34.2°C	0.163	10:57
SIMULATOR VAPOR 34.2°C	0.163	10:58
BLANK TEST	0.000	10:59

Average = 0.162
Std Dev = 0.000

L2 09/12/11 sh



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 11:19:05

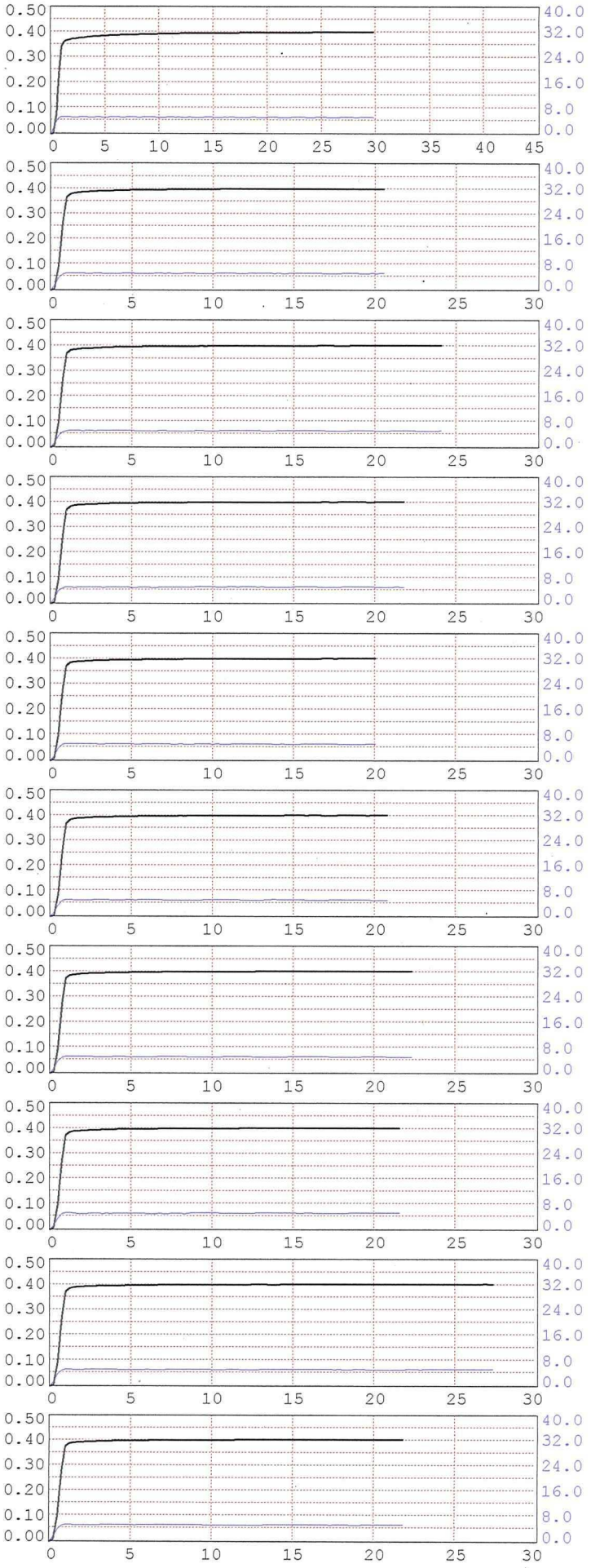
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-08-400
SOLUTION CONCENTRATION: 0.401

BLANK TEST	0.000	11:19
CALIBRATION CHECK	PASSED	11:20
SIMULATOR VAPOR 34.2°C	0.397	11:20
SIMULATOR VAPOR 34.2°C	0.398	11:21
SIMULATOR VAPOR 34.2°C	0.399	11:23
SIMULATOR VAPOR 34.2°C	0.399	11:24
SIMULATOR VAPOR 34.2°C	0.399	11:25
SIMULATOR VAPOR 34.1°C	0.399	11:26
SIMULATOR VAPOR 34.2°C	0.400	11:28
SIMULATOR VAPOR 34.2°C	0.400	11:29
SIMULATOR VAPOR 34.2°C	0.400	11:30
SIMULATOR VAPOR 34.2°C	0.400	11:31
BLANK TEST	0.000	11:32

Average = 0.399
Std Dev = 0.000

LJ 09/12/11 SK



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 13:27:04

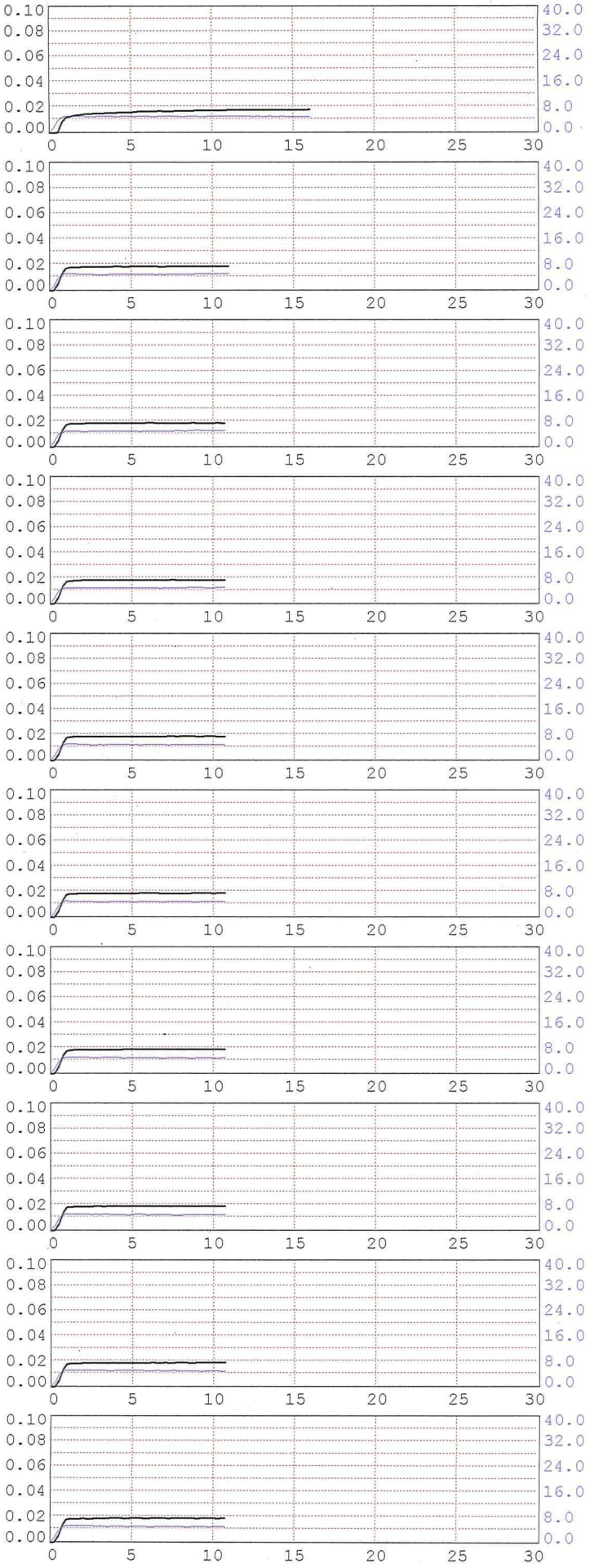
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-07-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	13:27
CALIBRATION CHECK	PASSED	13:28
SIMULATOR VAPOR 34.2°C	0.019	13:28
SIMULATOR VAPOR 34.2°C	0.019	13:29
SIMULATOR VAPOR 34.2°C	0.020	13:30
SIMULATOR VAPOR 34.2°C	0.020	13:31
SIMULATOR VAPOR 34.2°C	0.020	13:32
SIMULATOR VAPOR 34.2°C	0.019	13:33
SIMULATOR VAPOR 34.2°C	0.020	13:34
SIMULATOR VAPOR 34.2°C	0.020	13:35
SIMULATOR VAPOR 34.4°C	0.020	13:36
SIMULATOR VAPOR 34.2°C	0.019	13:37
BLANK TEST	0.000	13:38

Average = 0.019
Std Dev = 0.000

LJ 09/12/11 SM



DIAGNOSTIC RESULT

DataMaster DMT: 101708
Location:
Calibration Date: 09/08/2011
Certification Date: 09/08/2011
Installation Date:
Test Date: 09/12/2011
Test Time: 13:52:12

VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube = 48.1°C
Digital Sim = 34.2°C

SETTINGS
Lamp Voltage = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage = 80 V
Chopper Freq = 537 Hz

PUMP INFO
Flow Rate = 6.032 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0000	0.0020
MIN(V)	-0.0014	0.0002

FILTER INFO
Filter 1 0.001 Zero = true
Filter 2 0.611 Zero = true
Filter 3 0.747 Zero = true

CALIBRATION CHECK
Xq = 0.085 0.20%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 13:55:47

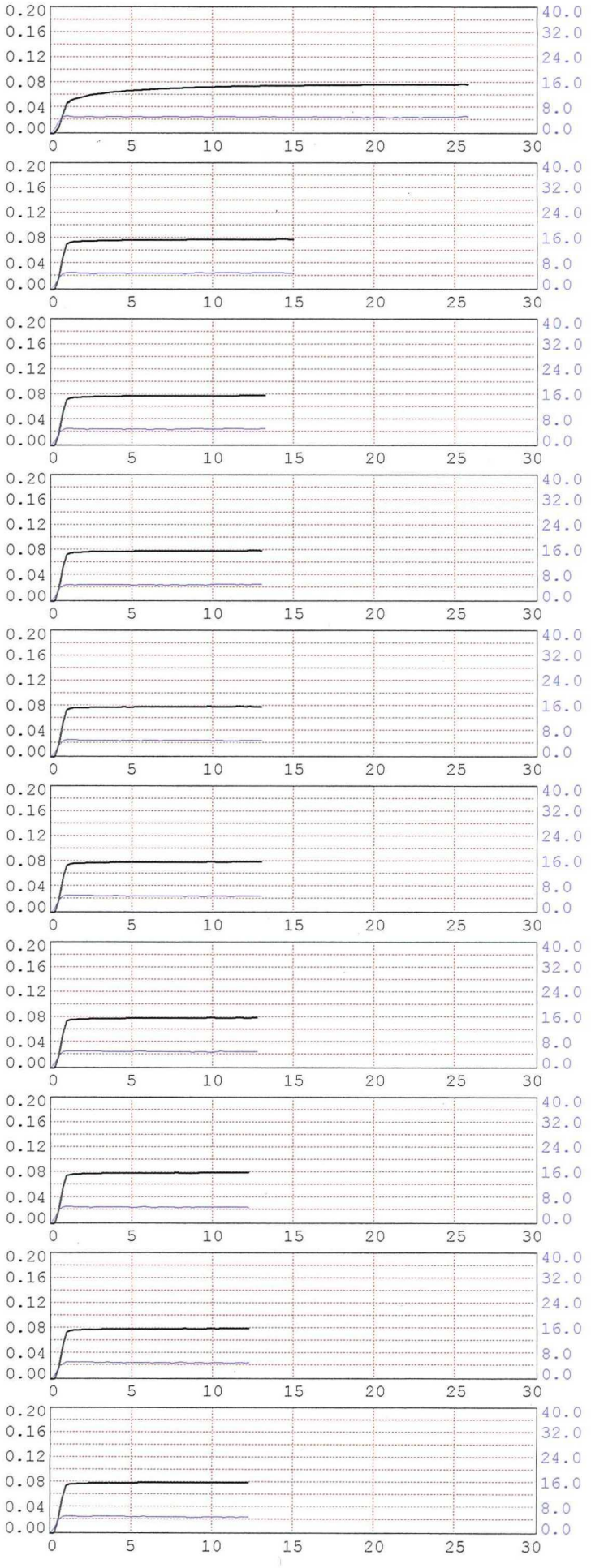
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-11-080
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	13:56
CALIBRATION CHECK	PASSED	13:56
SIMULATOR VAPOR 34.2°C	0.078	13:57
SIMULATOR VAPOR 34.2°C	0.079	13:58
SIMULATOR VAPOR 34.2°C	0.079	13:59
SIMULATOR VAPOR 34.2°C	0.080	14:00
SIMULATOR VAPOR 34.2°C	0.080	14:01
SIMULATOR VAPOR 34.2°C	0.080	14:02
SIMULATOR VAPOR 34.2°C	0.080	14:03
SIMULATOR VAPOR 34.2°C	0.080	14:04
SIMULATOR VAPOR 34.2°C	0.080	14:05
SIMULATOR VAPOR 34.2°C	0.080	14:06
BLANK TEST	0.000	14:07

Average = 0.079
Std Dev = 0.000

L3 09/12/11 SK



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 14:41:30

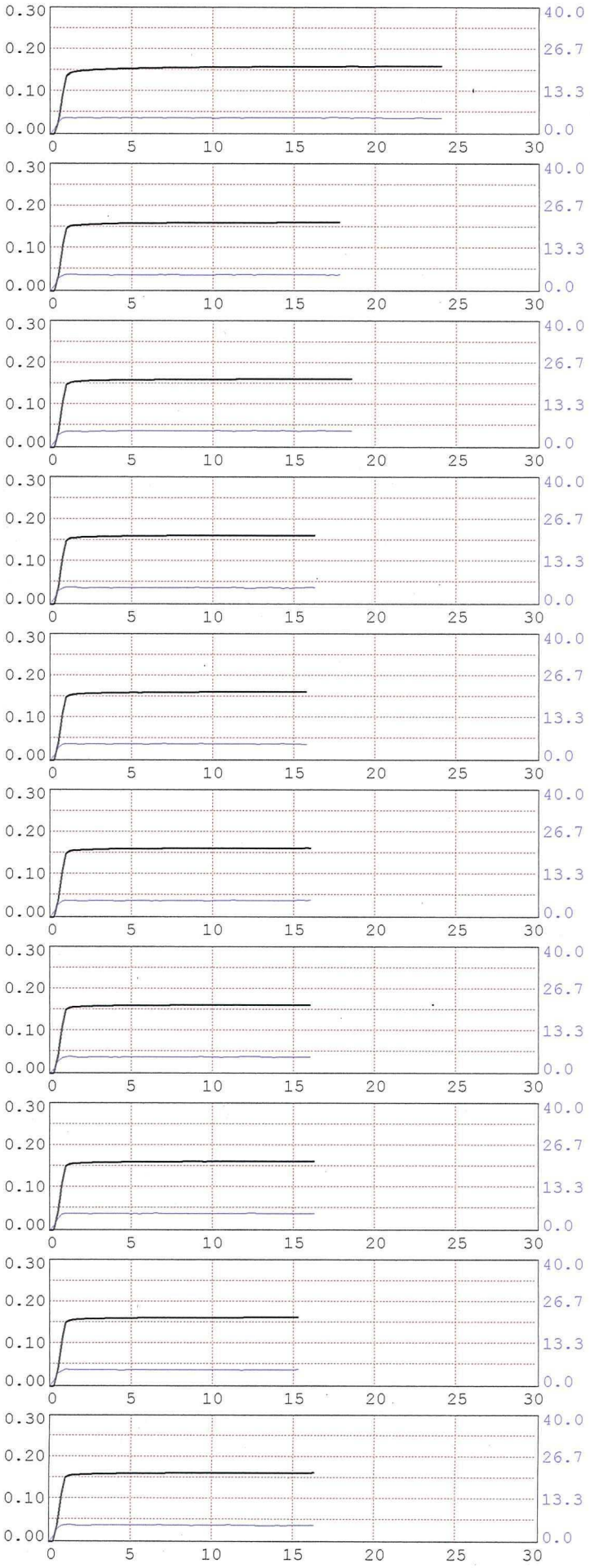
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-12-160
SOLUTION CONCENTRATION: 0.161

BLANK TEST	0.000	14:42
CALIBRATION CHECK	PASSED	14:42
SIMULATOR VAPOR 34.2°C	0.160	14:43
SIMULATOR VAPOR 34.1°C	0.161	14:44
SIMULATOR VAPOR 34.2°C	0.162	14:45
SIMULATOR VAPOR 34.2°C	0.162	14:46
SIMULATOR VAPOR 34.2°C	0.162	14:47
SIMULATOR VAPOR 34.4°C	0.162	14:48
SIMULATOR VAPOR 34.2°C	0.162	14:49
SIMULATOR VAPOR 34.2°C	0.162	14:50
SIMULATOR VAPOR 34.2°C	0.162	14:52
SIMULATOR VAPOR 34.2°C	0.162	14:53
BLANK TEST	0.000	14:54

Average = 0.161
Std Dev = 0.000

LS 09/12/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/12/2011
Time: 15:07:45

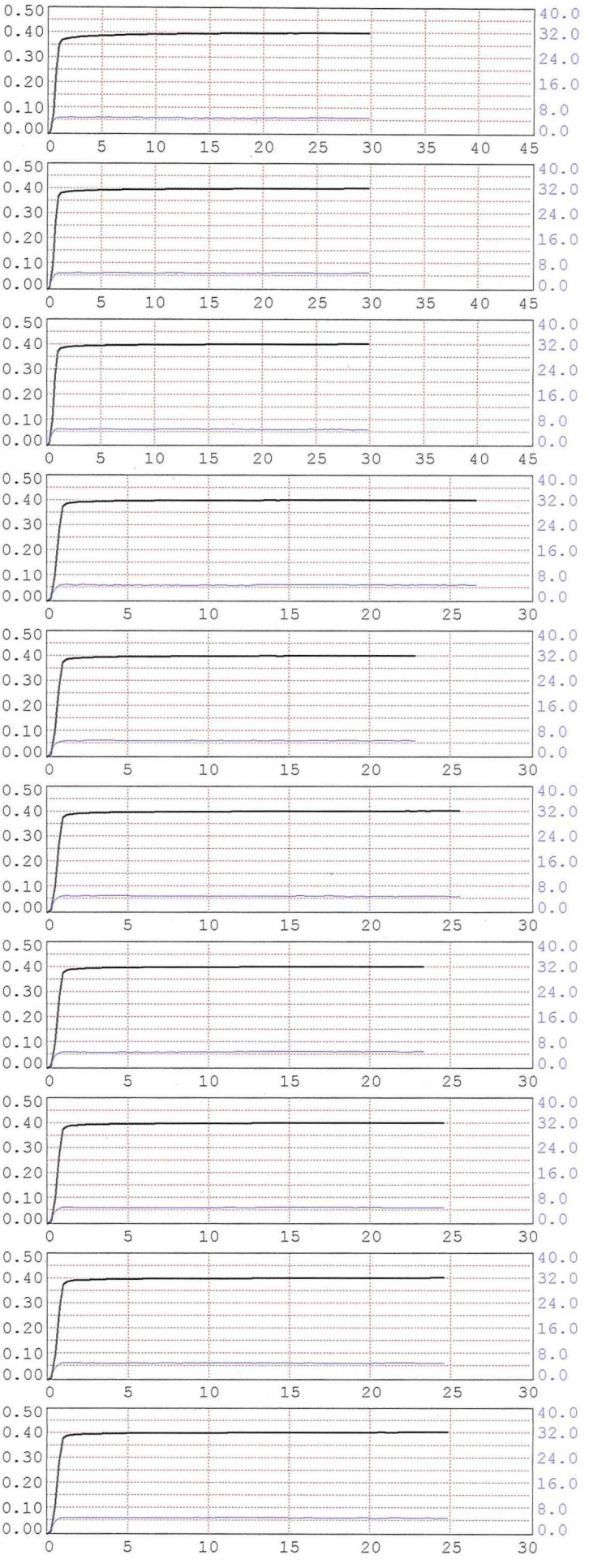
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-08-400
SOLUTION CONCENTRATION: 0.401

BLANK TEST	0.000	15:08
CALIBRATION CHECK	PASSED	15:08
SIMULATOR VAPOR 34.2°C	0.398	15:09
SIMULATOR VAPOR 34.2°C	0.399	15:10
SIMULATOR VAPOR 34.2°C	0.401	15:12
SIMULATOR VAPOR 34.2°C	0.400	15:13
SIMULATOR VAPOR 34.2°C	0.400	15:14
SIMULATOR VAPOR 34.2°C	0.401	15:15
SIMULATOR VAPOR 34.2°C	0.401	15:17
SIMULATOR VAPOR 34.2°C	0.400	15:18
SIMULATOR VAPOR 34.1°C	0.401	15:19
SIMULATOR VAPOR 34.2°C	0.401	15:21
BLANK TEST	0.000	15:21

Average = 0.400
Std Dev = 0.001

L3 09/12/11



DIAGNOSTIC RESULT

DataMaster DMT: 101708
Location:
Calibration Date: 09/08/2011
Certification Date: 09/08/2011
Installation Date:
Test Date: 09/13/2011
Test Time: 07:14:54

VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 48.1°C
Digital Sim = 34.2°C

SETTINGS
Lamp Voltage = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage = 80 V
Chopper Freq = 536 Hz

PUMP INFO
Flow Rate = 6.026 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	-0.0252	-0.0217
MIN(V)	-0.0262	-0.0232

FILTER INFO
Filter 1 -0.023 Zero = true
Filter 2 0.593 Zero = true
Filter 3 0.717 Zero = true

CALIBRATION CHECK
Xq = 0.085 0.20%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 08:39:10

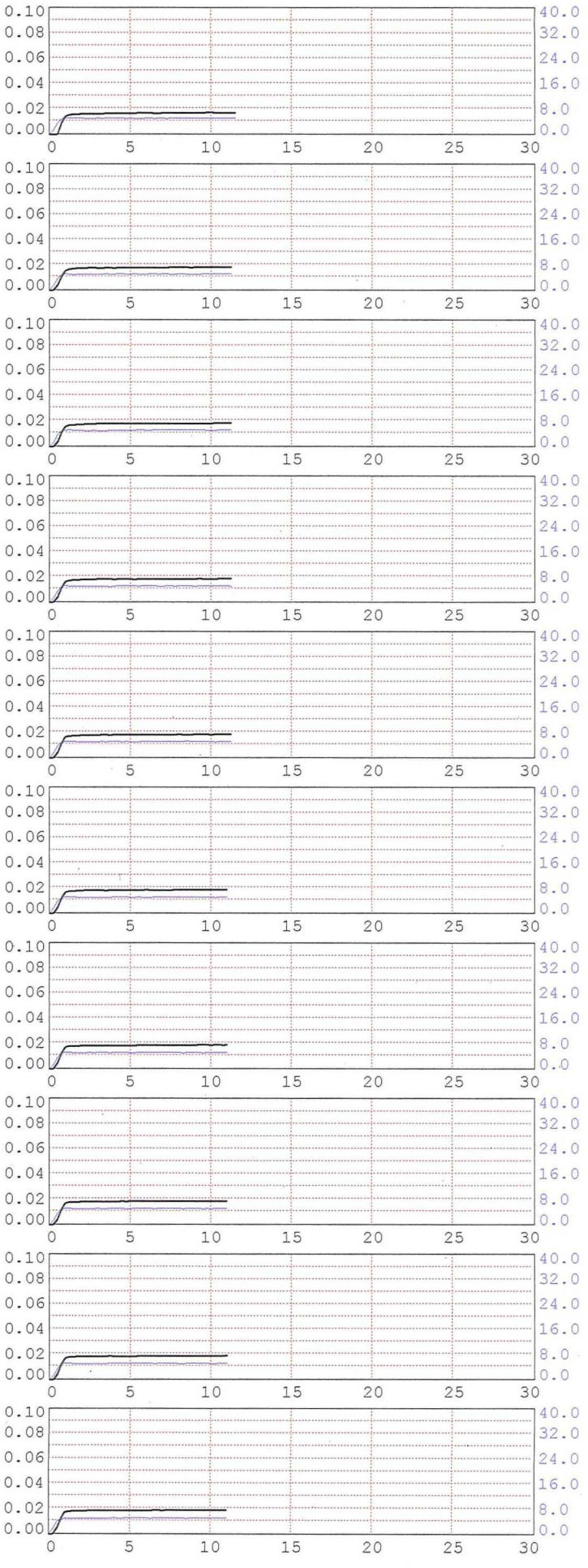
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-07-020
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	08:40
CALIBRATION CHECK	PASSED	08:40
SIMULATOR VAPOR 34.1°C	0.018	08:40
SIMULATOR VAPOR 34.2°C	0.019	08:41
SIMULATOR VAPOR 34.2°C	0.019	08:42
SIMULATOR VAPOR 34.2°C	0.019	08:43
SIMULATOR VAPOR 34.2°C	0.019	08:44
SIMULATOR VAPOR 34.2°C	0.019	08:45
SIMULATOR VAPOR 34.1°C	0.020	08:46
SIMULATOR VAPOR 34.2°C	0.020	08:47
SIMULATOR VAPOR 34.1°C	0.020	08:48
SIMULATOR VAPOR 34.2°C	0.020	08:49
BLANK TEST	0.000	08:50

Average = 0.019
Std Dev = 0.000

L4 09/13/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 08:55:38

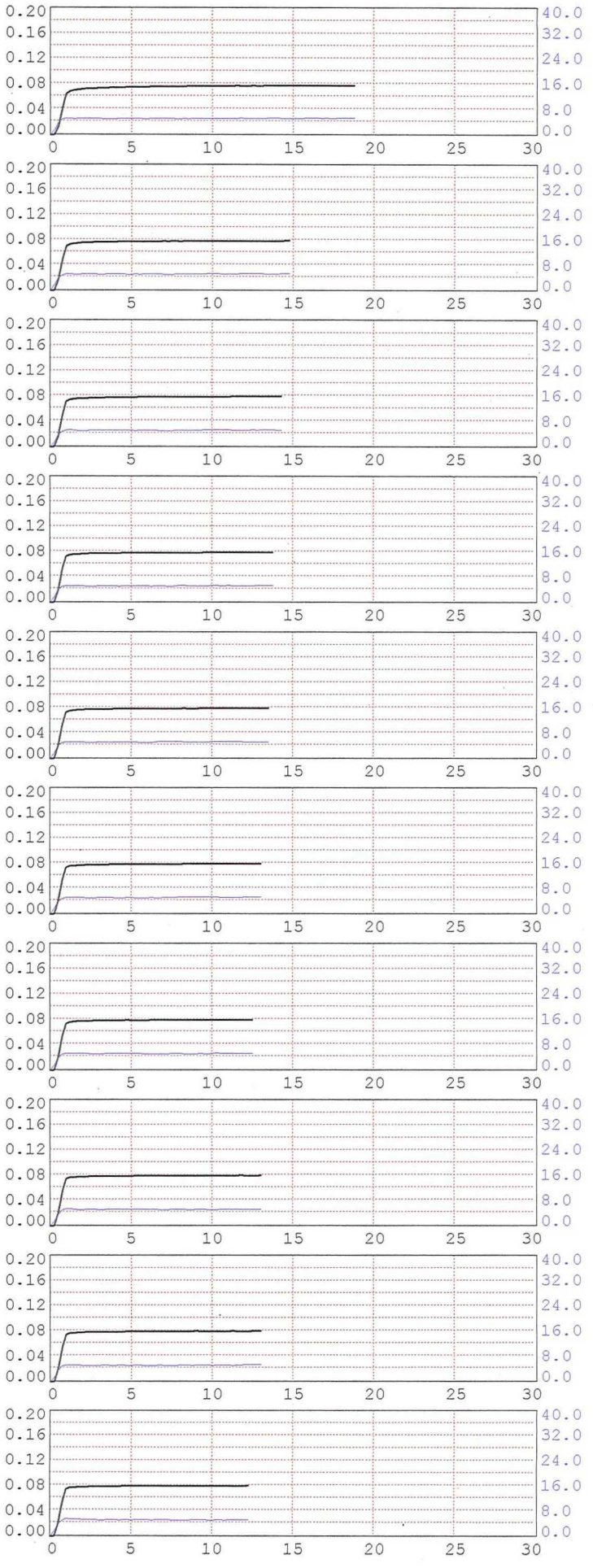
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-11-080
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	08:56
CALIBRATION CHECK	PASSED	08:56
SIMULATOR VAPOR 34.2°C	0.078	08:57
SIMULATOR VAPOR 34.2°C	0.079	08:58
SIMULATOR VAPOR 34.1°C	0.079	08:59
SIMULATOR VAPOR 34.2°C	0.079	09:00
SIMULATOR VAPOR 34.2°C	0.079	09:01
SIMULATOR VAPOR 34.2°C	0.079	09:02
SIMULATOR VAPOR 34.2°C	0.080	09:03
SIMULATOR VAPOR 34.2°C	0.080	09:04
SIMULATOR VAPOR 34.4°C	0.080	09:05
SIMULATOR VAPOR 34.1°C	0.079	09:06
BLANK TEST	0.000	09:07

Average = 0.079
Std Dev = 0.000

LH 09/13/11 sh



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 09:18:30

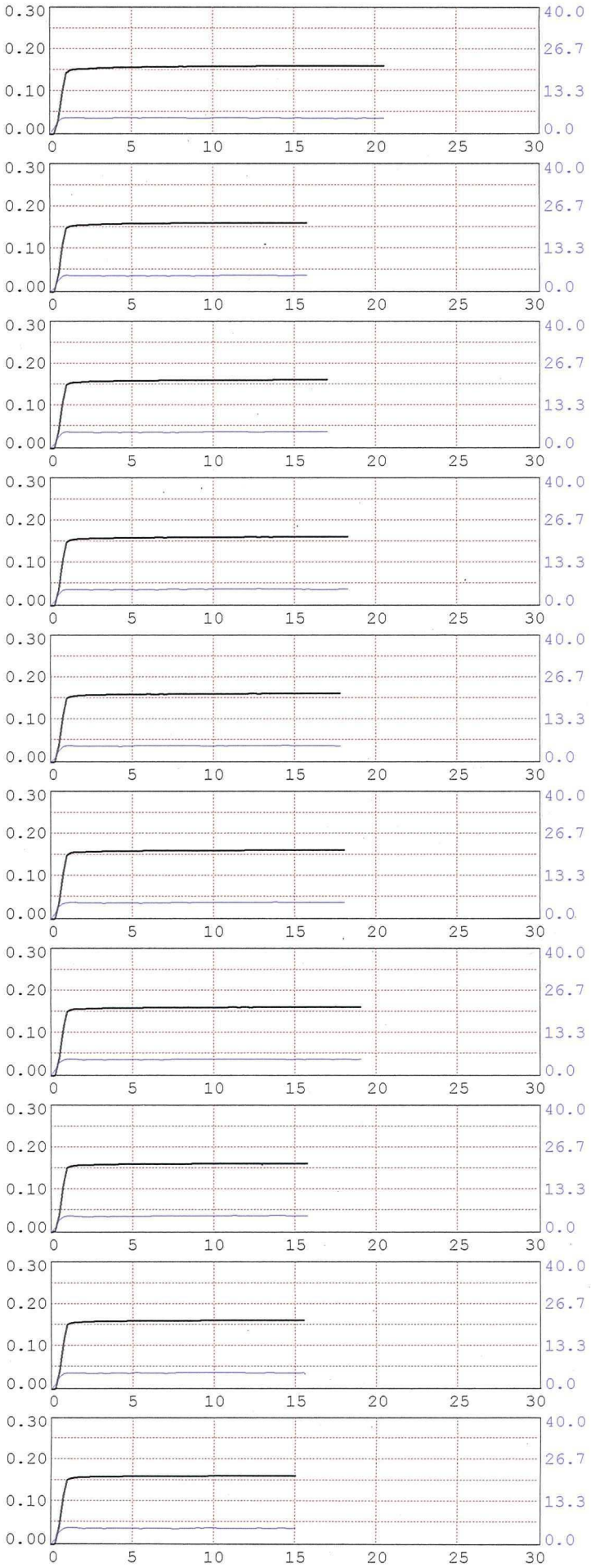
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-12-160
SOLUTION CONCENTRATION: 0.161

BLANK TEST	0.000	09:19
CALIBRATION CHECK	PASSED	09:19
SIMULATOR VAPOR 34.4°C	0.160	09:19
SIMULATOR VAPOR 34.4°C	0.161	09:21
SIMULATOR VAPOR 34.2°C	0.161	09:22
SIMULATOR VAPOR 34.2°C	0.161	09:23
SIMULATOR VAPOR 34.2°C	0.161	09:24
SIMULATOR VAPOR 34.1°C	0.162	09:25
SIMULATOR VAPOR 34.2°C	0.162	09:26
SIMULATOR VAPOR 34.2°C	0.162	09:27
SIMULATOR VAPOR 34.2°C	0.162	09:29
SIMULATOR VAPOR 34.2°C	0.161	09:30
BLANK TEST	0.000	09:31

Average = 0.161
Std Dev = 0.000

LH 09/13/11 SH



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 09:34:20

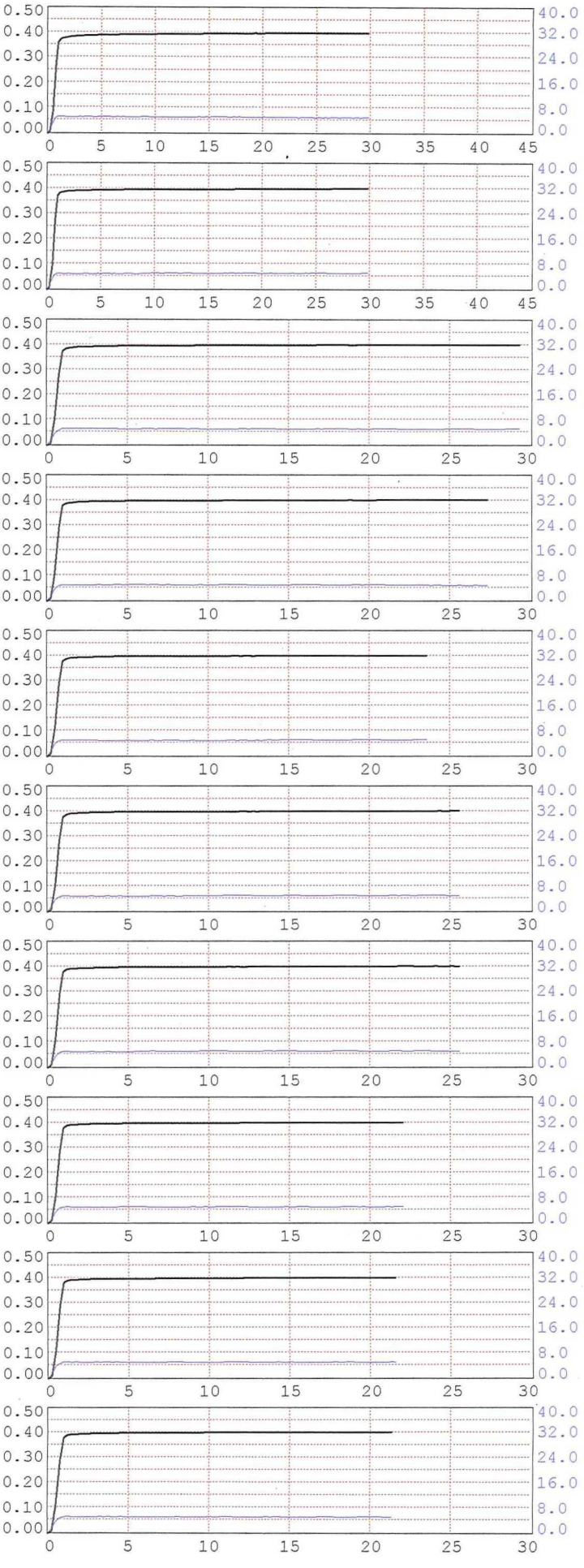
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-08-400
SOLUTION CONCENTRATION: 0.401

BLANK TEST	0.000	09:35
CALIBRATION CHECK	PASSED	09:35
SIMULATOR VAPOR 34.2°C	0.396	09:35
SIMULATOR VAPOR 34.2°C	0.397	09:37
SIMULATOR VAPOR 34.2°C	0.399	09:38
SIMULATOR VAPOR 34.2°C	0.399	09:39
SIMULATOR VAPOR 34.2°C	0.398	09:41
SIMULATOR VAPOR 34.2°C	0.399	09:42
SIMULATOR VAPOR 34.2°C	0.399	09:43
SIMULATOR VAPOR 34.2°C	0.398	09:45
SIMULATOR VAPOR 34.2°C	0.398	09:46
SIMULATOR VAPOR 34.2°C	0.399	09:47
BLANK TEST	0.000	09:48

Average = 0.398
Std Dev = 0.001

LY 09/13/11 SM



DIAGNOSTIC RESULT

DataMaster DMT: 101708
Location:
Calibration Date: 09/08/2011
Certification Date: 09/08/2011
Installation Date:
Test Date: 09/13/2011
Test Time: 09:54:46

VERSIONS
DMT: 1.00
PIC: 2.05
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube = 46.8°C
Digital Sim = 34.2°C

SETTINGS
Lamp Voltage = 1.80 V
Cooler Voltage = 1.81 V
Bias Voltage = 80 V
Chopper Freq = 538 Hz

PUMP INFO
Flow Rate = 5.985 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0157	0.0177
MIN(V)	0.0144	0.0163

FILTER INFO
Filter 1 0.017 Zero = true
Filter 2 0.624 Zero = true
Filter 3 0.771 Zero = true

CALIBRATION CHECK
Xq = 0.085 0.20%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 10:22:16

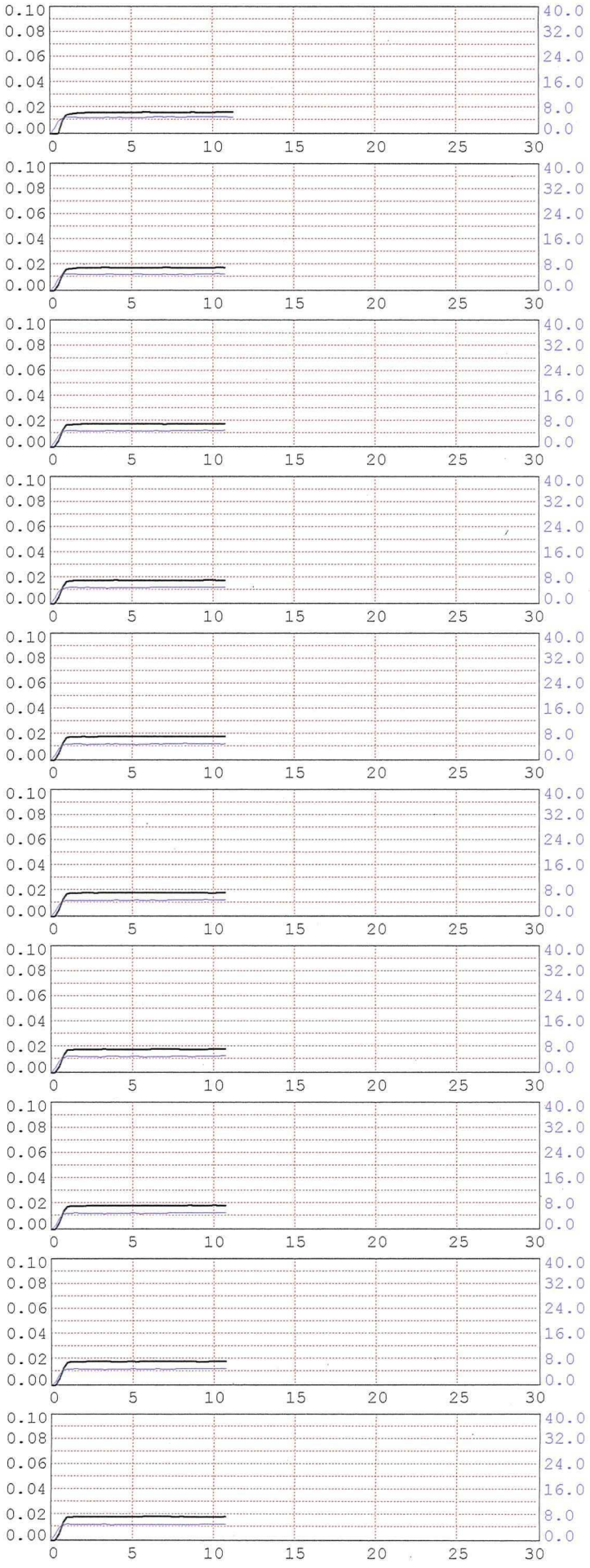
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-07-02
SOLUTION CONCENTRATION: 0.019

BLANK TEST	0.000	10:23
CALIBRATION CHECK	PASSED	10:23
SIMULATOR VAPOR 34.2°C	0.018	10:23
SIMULATOR VAPOR 34.2°C	0.019	10:24
SIMULATOR VAPOR 34.2°C	0.019	10:25
SIMULATOR VAPOR 34.2°C	0.019	10:26
SIMULATOR VAPOR 34.2°C	0.020	10:27
SIMULATOR VAPOR 34.2°C	0.019	10:28
SIMULATOR VAPOR 34.2°C	0.019	10:29
SIMULATOR VAPOR 34.1°C	0.019	10:30
SIMULATOR VAPOR 34.2°C	0.019	10:31
SIMULATOR VAPOR 34.2°C	0.019	10:32
BLANK TEST	0.000	10:33

Average = 0.019
Std Dev = 0.000

LS 09/13/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 11:02:05

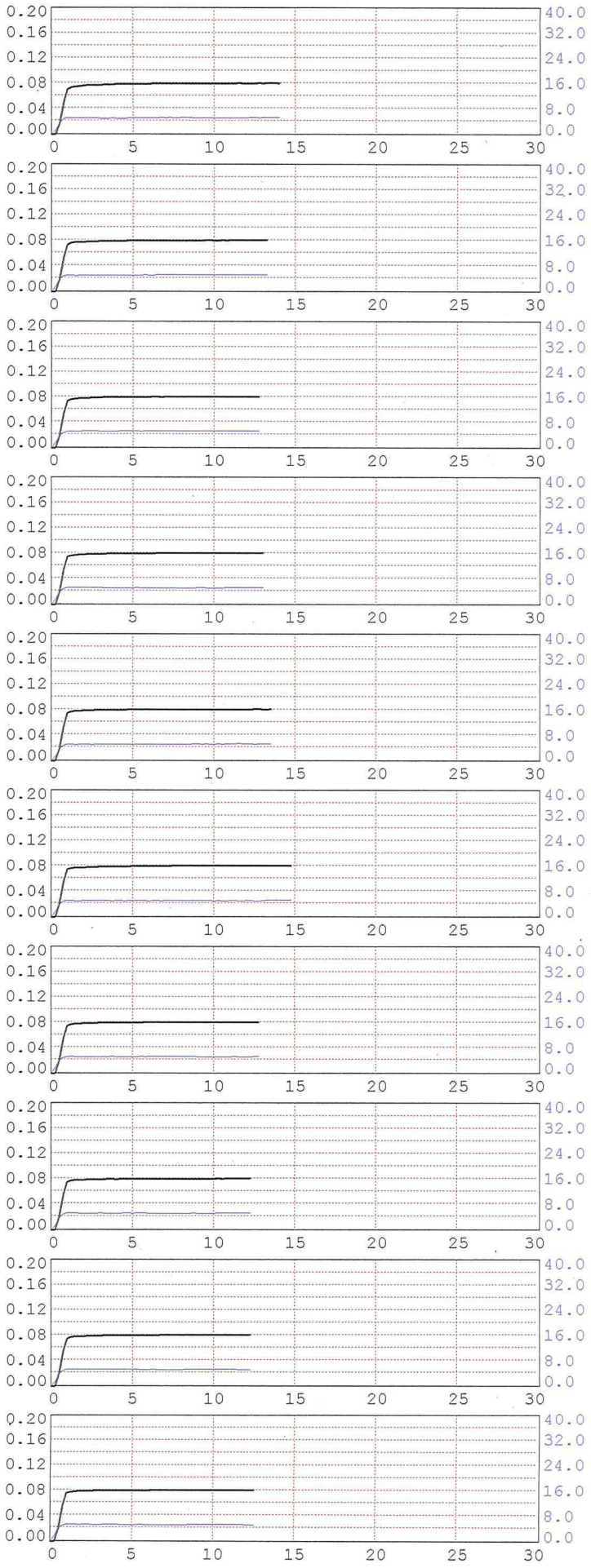
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-11-080
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	11:02
CALIBRATION CHECK	PASSED	11:03
SIMULATOR VAPOR 34.2°C	0.081	11:03
SIMULATOR VAPOR 34.2°C	0.081	11:04
SIMULATOR VAPOR 34.2°C	0.081	11:05
SIMULATOR VAPOR 34.1°C	0.081	11:06
SIMULATOR VAPOR 34.2°C	0.081	11:07
SIMULATOR VAPOR 34.1°C	0.081	11:08
SIMULATOR VAPOR 34.1°C	0.081	11:09
SIMULATOR VAPOR 34.2°C	0.081	11:11
SIMULATOR VAPOR 34.2°C	0.081	11:12
SIMULATOR VAPOR 34.1°C	0.081	11:13
BLANK TEST	0.000	11:13

Average = 0.081
Std Dev = 0.000

LS 09/13/11 SL



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 101708

Date: 09/13/2011
Time: 11:17:17

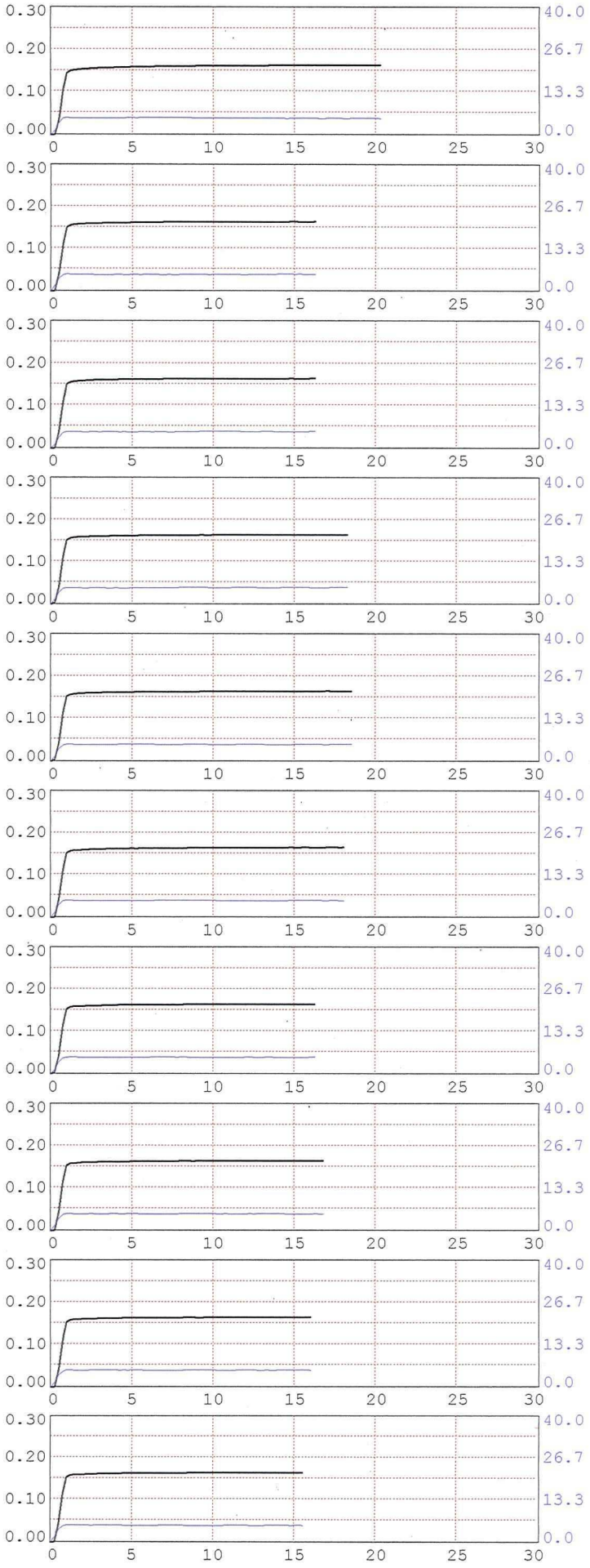
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-12-160
SOLUTION CONCENTRATION: 0.161

BLANK TEST	0.000	11:18
CALIBRATION CHECK	PASSED	11:18
SIMULATOR VAPOR 34.2°C	0.163	11:18
SIMULATOR VAPOR 34.1°C	0.163	11:19
SIMULATOR VAPOR 34.2°C	0.163	11:21
SIMULATOR VAPOR 34.2°C	0.164	11:22
SIMULATOR VAPOR 34.2°C	0.164	11:23
SIMULATOR VAPOR 34.2°C	0.165	11:24
SIMULATOR VAPOR 34.2°C	0.165	11:26
SIMULATOR VAPOR 34.2°C	0.164	11:27
SIMULATOR VAPOR 34.2°C	0.164	11:28
SIMULATOR VAPOR 34.2°C	0.164	11:29
BLANK TEST	0.000	11:30

Average = 0.163
Std Dev = 0.000

LS 09/13/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

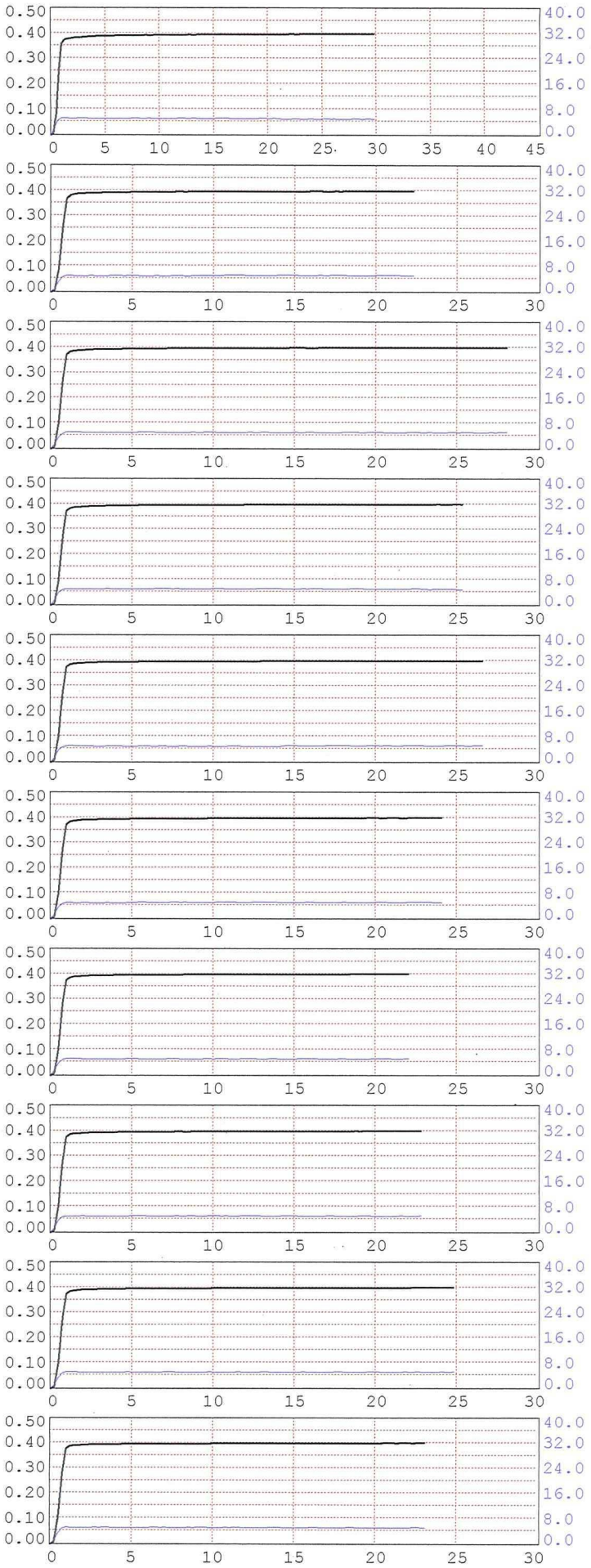
DataMater DMT: 101708

Date: 09/13/2011
Time: 11:34:03

SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-08-400
SOLUTION CONCENTRATION: 0.401

BLANK TEST	0.000	11:34
CALIBRATION CHECK	PASSED	11:35
SIMULATOR VAPOR 34.2°C	0.395	11:35
SIMULATOR VAPOR 34.2°C	0.395	11:36
SIMULATOR VAPOR 34.2°C	0.396	11:38
SIMULATOR VAPOR 34.2°C	0.396	11:39
SIMULATOR VAPOR 34.2°C	0.396	11:40
SIMULATOR VAPOR 34.2°C	0.397	11:42
SIMULATOR VAPOR 34.2°C	0.397	11:43
SIMULATOR VAPOR 34.2°C	0.397	11:44
SIMULATOR VAPOR 34.2°C	0.397	11:45
SIMULATOR VAPOR 34.2°C	0.397	11:47
BLANK TEST	0.000	11:48

Average = 0.396
Std Dev = 0.000

LS 09/13/11