DATAMASTER DMT 100162

VERMONT DEPARTMENT OF HEALTH LABORATORY

PERFORMANCE TESTING RESULTS

November 2010

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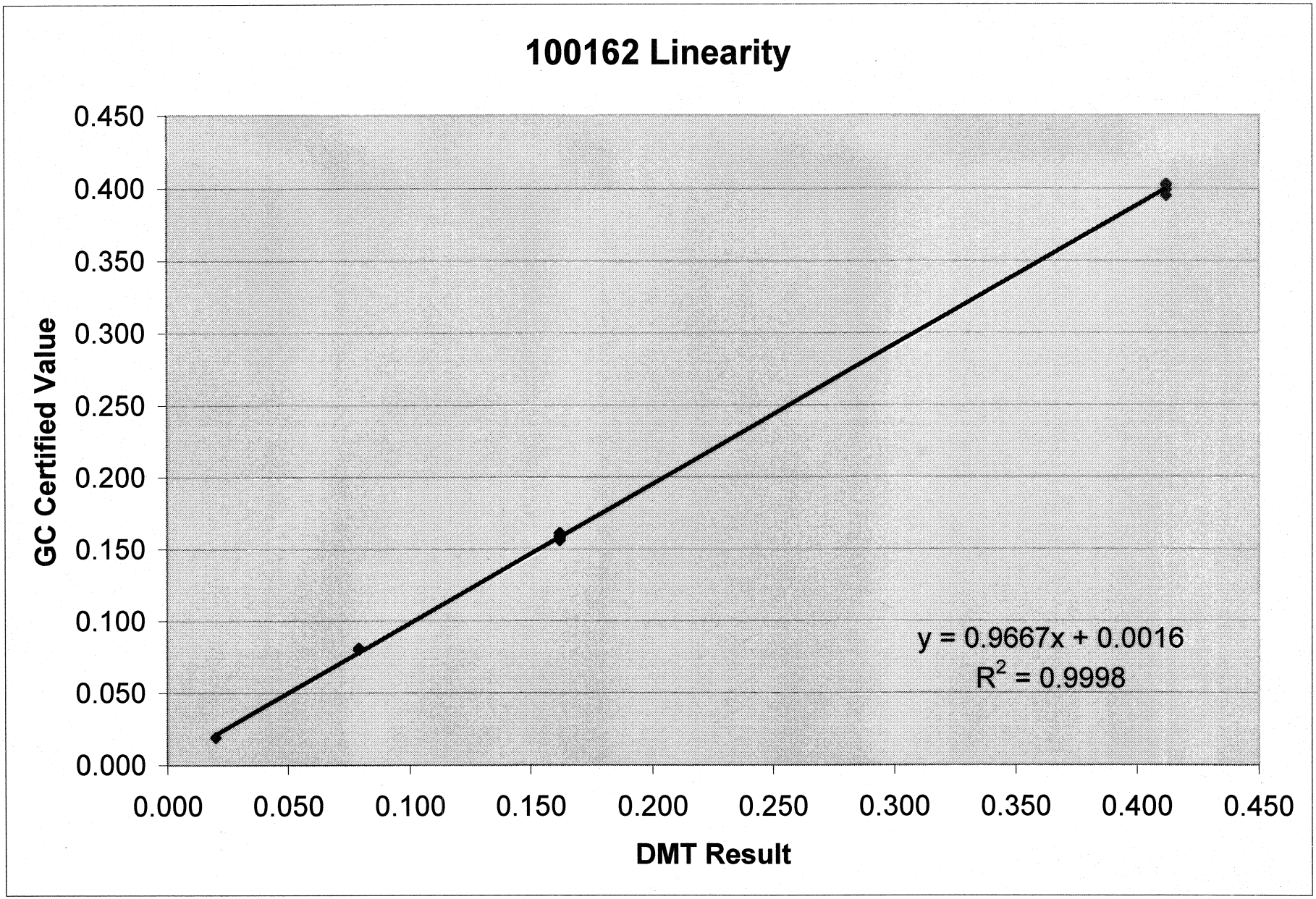
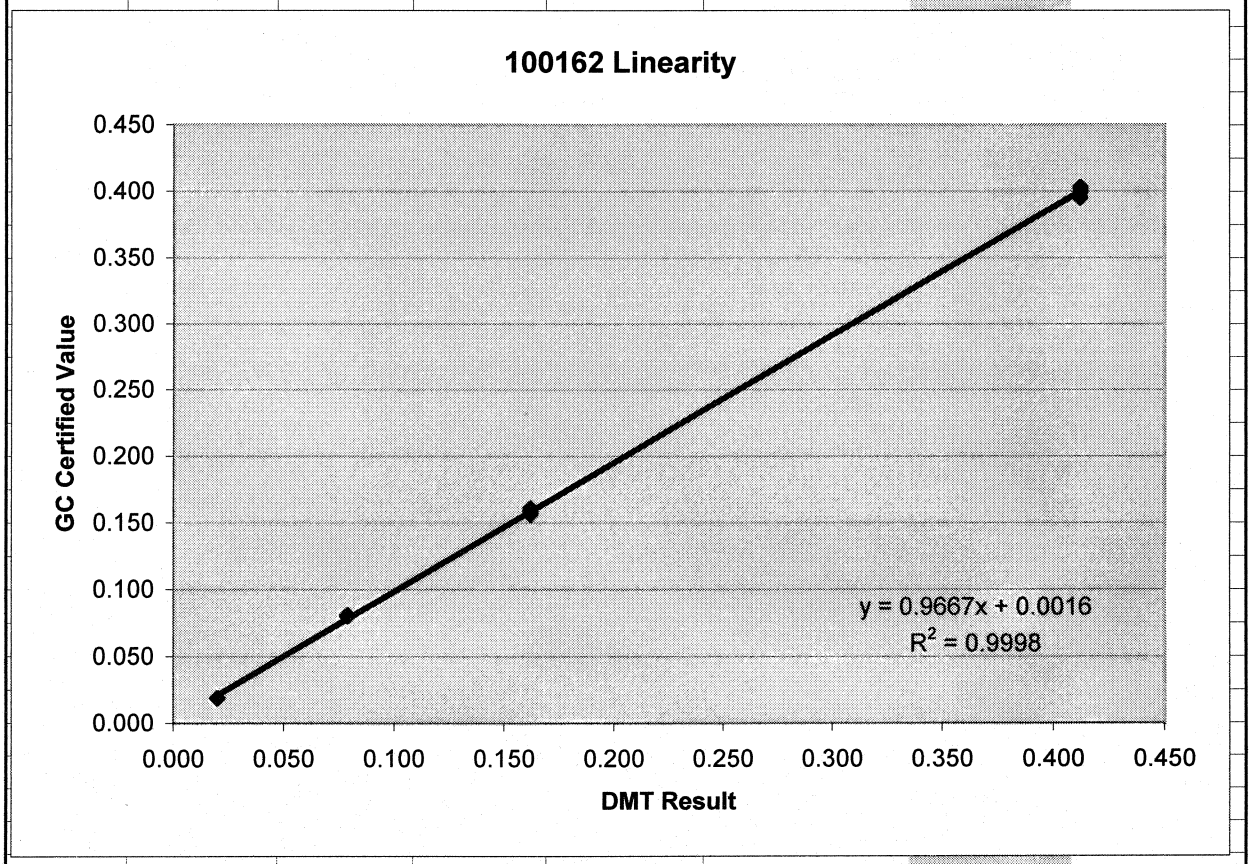
Section 1: Results


100162 Linearity
GC Certified Value
0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
0.000
0.050
0.100
0.150
0.200
0.250
0.300
0.350
0.400
0.450
DMT Result
y = 0.9667x + 0.0016
R2 = 0.9998

DMT Serial # 100162

Operator	Date	Lot #	GC Value	DMT Result	Std Dev	% Recovery	
ALB	10/12/2010	10-37-080	0.079	0.080	0.0004	101.3	Outside 5%
		11-07-400	0.412	0.402	0.0011	97.6	Outside 10%
		10-34-020	0.020	0.019	0.0000	95.0	
		11-06-160	0.162	0.157	0.0003	96.9	
ALB	10/12/2010	11-07-400	0.412	0.395	0.0014	95.9	
		10-34-020	0.020	0.019	0.0003	95.0	
		11-06-160	0.162	0.159	0.0004	98.1	
		10-37-080	0.079	0.081	0.0004	102.5	
SH	10/13/2010	10-34-020	0.020	0.019	0.0000	95.0	
		10-37-080	0.079	0.081	0.0000	102.5	
		11-06-160	0.162	0.158	0.0005	97.5	
		11-07-400	0.412	0.403	0.0008	97.8	
SH	10/14/2010	10-34-020	0.020	0.019	0.0000	95.0	
		10-37-080	0.079	0.080	0.0005	101.3	
		11-06-160	0.162	0.156	0.0005	96.3	
		11-07-400	0.412	0.399	0.0006	96.8	
SH	10/14/2010	10-34-020	0.020	0.019	0.0000	95.0	
		10-37-080	0.079	0.080	0.0004	101.3	
		11-06-160	0.162	0.161	0.0003	99.4	
		11-07-400	0.412	0.399	0.0006	96.8	
				Average	0.0004	97.9	
				Std Dev	0.0004	2.63	
				Range	0.0000 - 0.0014	95.0 - 102.5	



Y:\VDH\VDH All Share\Lab\Alcohol\Datamaster DMT electronic documents\100162\Testing Results.xls

DMT Serial # 100162

Operator	Date	Concentration	Lot Number	DMT Result	Apparent EtOH	N = 10
SH	10/11/10	.01 Acetone in .08 EtOH	11-11-08A1	INTERFERENCE	0.08	
SH	10/11/10	.01 Acetone in .04 EtOH	10-35-04A1	INTERFERENCE	0.04	
SH	10/11/10	.02 Acetone in .04 EtOH	10-35-04A2	INTERFERENCE	0.03	
SH	10/11/10	.04 MeOH in water	11-08-04M	9 OUT OF 10	0.02	
SH	10/11/10	.04 MeOH in .08 EtOH	10-10-08M4	INTERFERENCE	0.1	
SH	10/11/10	.04 IPA in water	10-26-04I	INTERFERENCE	0.02	
SH	10/11/10	.04 IPA in .08 EtOH	09-30-08I	INTERFERENCE	0.09	

Section 2: NPAS Tests

National Patent
Analytical Systems, Inc.

Certificate of Calibration

100162
Instrument Serial Number

09380
Standard Reference Number

The above instrument has been calibrated and is hereby certified for use in determining alcohol breath concentration when used in accordance with the operating guidelines by a properly trained operator.

6-29-80
Date

Technician

CALIBRATION REPORT

DataMaster DMT: 100162
Calibration Date: 06/29/2010
Calibrated by: T T T
Lot: 876

VERMONT
DEPARTMENT OF HEALTH

```
Ca  =  0.101000
CAL =  0.982795    0.800 <= CAL < 1.200
b1  =  0.000073    0.000 <=  b1 < 0.004
b2  =  0.006458    0.001 <=  b2 < 0.012
b3  =  0.000000    0.000 <=  b3 < 0.004
Xq  =  0.089820    0.050 <=  Xq < 0.200
a21 =  1.195096    1.050 <= a21 < 1.300
a31 =  0.426355    0.300 <= a31 < 0.800
```

Performed by _____ **Date** 06/29/2010

INSTALLATION REPORT

DataMaster DMT: 100162
Location: ADDISON COUNTY SO
Calibration Date: 06/29/2010
Certification Date: 06/29/2010
Installation Date: 06/29/2010
Installed By: Y Y Y

VERMONT
DEPARTMENT OF HEALTH

Site meets specification in doc P-ALC-210

Diagnostic Results

VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.74°C
Breath Tube = 44.96°C

SETTINGS
Lamp Voltage = 2.16 V
Cooler Voltage = 1.69 V
Bias Voltage = 80.6 V
Chopper Freq = 539.2 Hz

PUMP INFO
Flow Rate = 6.119 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.4640	0.4642
MIN(V)	0.4606	0.4628

FILTER INFO
Filter 1 0.464 Zero = true
Filter 2 0.679 Zero = true
Filter 3 1.433 Zero = true

CALIBRATION CHECK
Xq = 0.0879 2.14%

INSTALLATION PASSED

Accuracy and Precision Check

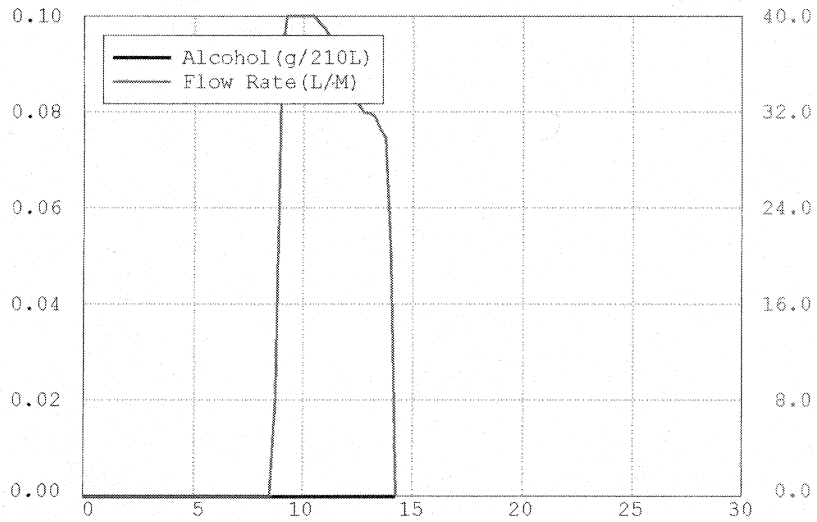
Concentration = 0.100 g/210L
Lot # = 98765
Average = 0.102 g/210L
Std Dev = 0.001

RFI Interference Test

RFI detected

Sample Acceptance Test

Passed



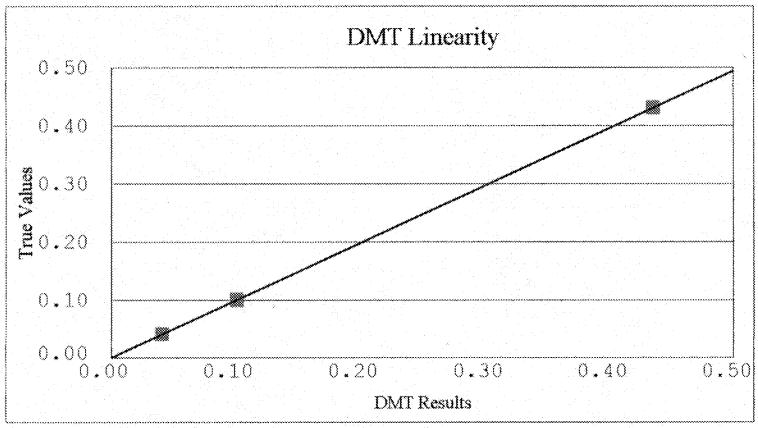
Performed by _____ Date 06/29/2010

Reviewed by _____ Date _____

Linearity Check Results

True Value	Reported Average	Std Dev
0.041 g/210L Lot # 9854	0.041 g/210L	0.001
0.100 g/210L Lot # 765	0.101 g/210L	0.000
0.101 g/210L Lot # 765	0.101 g/210L	0.001
0.430 g/210L Lot # 78	0.435 g/210L	0.001

$R^2 = 1.0000$



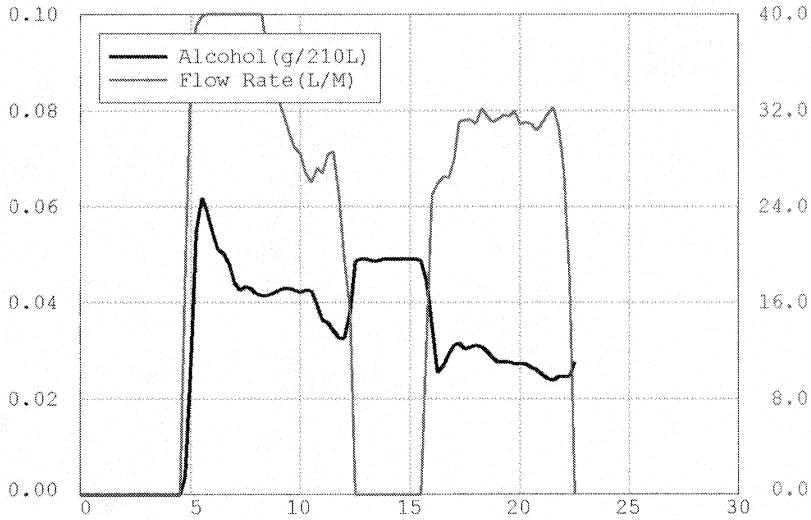
Acetone Interference Test

Lot # I87Y6TR

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

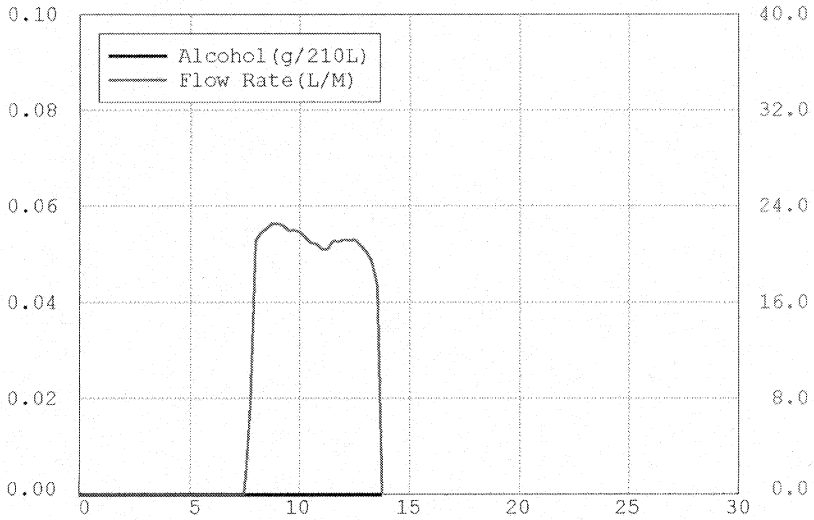


RF Interference Test

RFI detected

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by _____ **Date** 06/29/2010

Reviewed by _____ **Date** _____

CERTIFICATION REPORT

DataMaster DMT: 100162
Calibration Date: 06/29/2010
Certification Date: 06/29/2010
Certified by: T T T

VERMONT
DEPARTMENT OF HEALTH

Diagnostic Results

VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube = 45.52°C

SETTINGS
Lamp Voltage = 2.16 V
Cooler Voltage = 1.69 V
Bias Voltage = 80.6 V
Chopper Freq = 537.3 Hz

PUMP INFO
Flow Rate = 6.207 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.4541	0.4553
MIN(V)	0.4518	0.4541

FILTER INFO
Filter 1 0.455 Zero = true
Filter 2 0.667 Zero = true
Filter 3 1.416 Zero = true

CALIBRATION CHECK
Xq = 0.0883 1.65%

Options

Printer: yes
Number of Copies: 1
Number of Supervisor Tests: 10
Tolerance Check: no
Data Collection: yes
Units: g/210L
Simulator Check: no
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.101
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: yes
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 2
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100

CALIBRATION REPORT

DataMaster DMT: 100162
Calibration Date: 06/29/2010
Calibrated by: T T T
Lot: 876

VERMONT
DEPARTMENT OF HEALTH

Ca =	0.101000		
CAL =	0.982795	0.800 <= CAL < 1.200	
b1 =	0.000073	0.000 <= b1 < 0.004	
b2 =	0.006458	0.001 <= b2 < 0.012	
b3 =	0.000000	0.000 <= b3 < 0.004	
Xq =	0.089820	0.050 <= Xq < 0.200	
a21 =	1.195096	1.050 <= a21 < 1.300	
a31 =	0.426355	0.300 <= a31 < 0.800	

Performed by _____ Date 06/29/2010

OPTIONS PRINT OUT

DataMaster DMT: 100162
Location: ADDISON COUNTY SO
Calibration Date: 06/29/2010
Certification Date: 06/29/2010
Installation Date: 06/29/2010

VERMONT
DEPARTMENT OF HEALTH

```
Printer: yes
Number of Copies: 3
Number of Supervisor Tests: 10
Tolerance Check: yes
Data Collection: yes
Units: g/210L
Simulator Check: yes
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.100
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 1
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100
```

Section 3: Power-Up Tests

CALIBRATION REPORT

DataMaster DMT: 100162
Calibration Date: 10/08/2010
Calibrated by: STEVEN E HARNOIS
Lot: 11-12-100

VERMONT
DEPARTMENT OF HEALTH

```
Ca  =  0.100000
CAL =  0.986702    0.800 <= CAL < 1.200
b1  =  0.000198    0.000 <=  b1 < 0.004
b2  =  0.005940    0.001 <=  b2 < 0.012
b3  =  0.000000    0.000 <=  b3 < 0.004
Xq  =  0.089820    0.050 <=  Xq < 0.200
a21 =  1.203633    1.050 <= a21 < 1.300
a31 =  0.433330    0.300 <= a31 < 0.800
```

Performed by _____ Date 10/08/2010

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

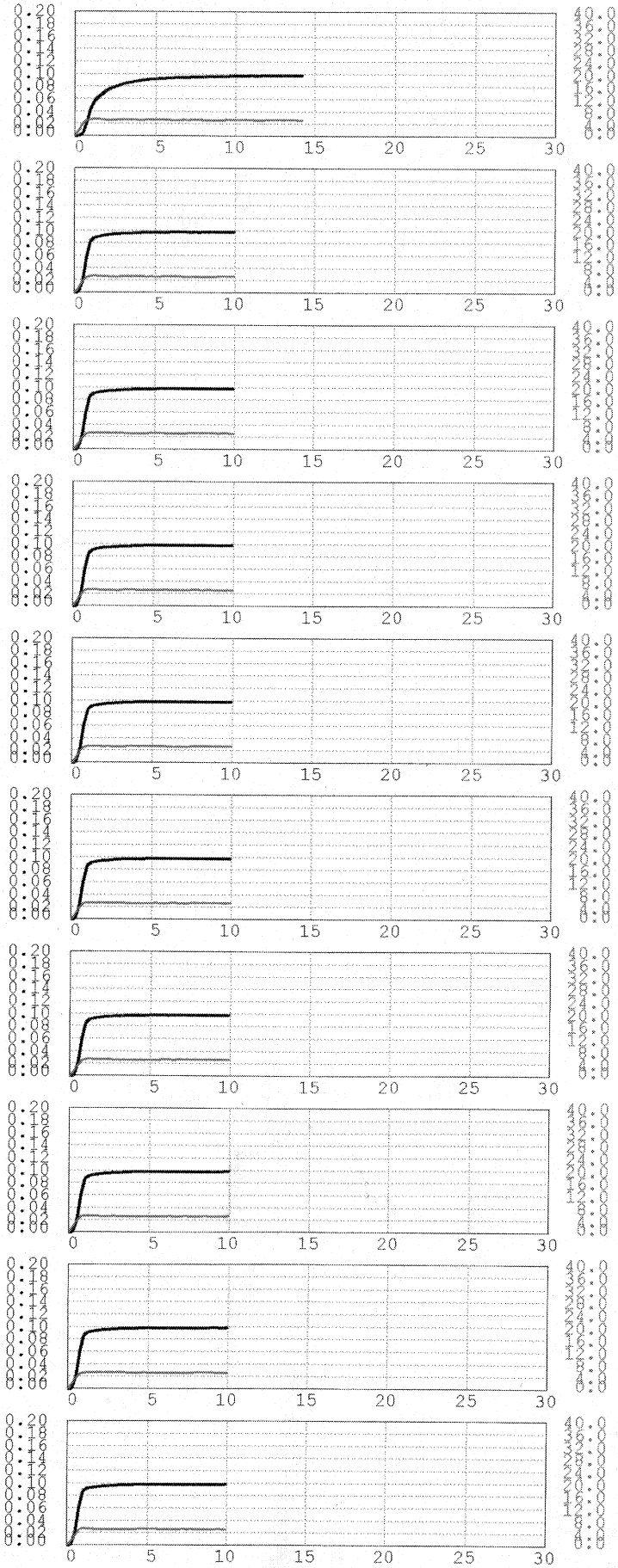
Date: 10/08/2010
Time: 09:18:40

SUPERVISOR NAME: SEH CAL CHECK

SOLUTION LOT #: 11-10-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	09:19
CALIBRATION CHECK	PASSED	09:19
SIMULATOR VAPOR	0.098	09:20
SIMULATOR VAPOR	0.098	09:21
SIMULATOR VAPOR	0.098	09:22
SIMULATOR VAPOR	0.098	09:23
SIMULATOR VAPOR	0.098	09:24
SIMULATOR VAPOR	0.098	09:25
SIMULATOR VAPOR	0.098	09:25
SIMULATOR VAPOR	0.098	09:26
SIMULATOR VAPOR	0.098	09:27
SIMULATOR VAPOR	0.098	09:28
BLANK TEST	0.000	09:29

Average = 0.097
Std Dev = 0.0000



CERTIFICATION REPORT

DataMaster DMT: 100162
Calibration Date: 10/08/2010
Certification Date: 10/08/2010
Certified by: STEVEN E HARNOIS

VERMONT
DEPARTMENT OF HEALTH

Diagnostic Results

VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 49.09°C
Breath Tube = 47.22°C

SETTINGS
Lamp Voltage = 2.24 V
Cooler Voltage = 1.76 V
Bias Voltage = 80.6 V
Chopper Freq = 541.6 Hz

PUMP INFO
Flow Rate = 6.370 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0167	0.0191
MIN(V)	0.0154	0.0177

FILTER INFO
Filter 1 0.019 Zero = true
Filter 2 0.266 Zero = true
Filter 3 1.085 Zero = true

CALIBRATION CHECK
Xq = 0.0899 0.19%

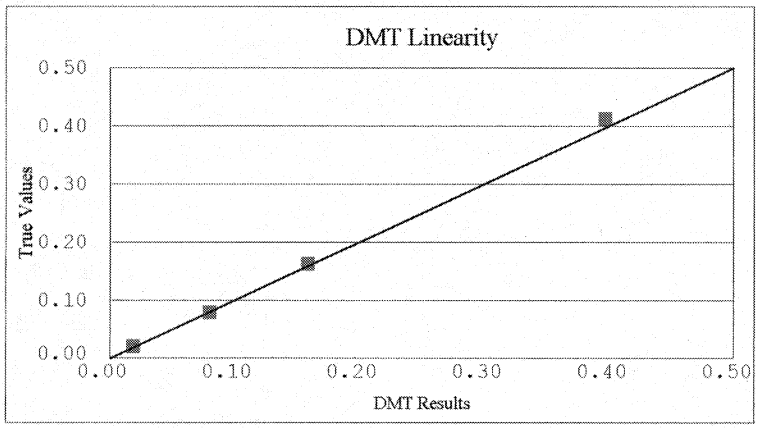
Options

Printer: yes
Number of Copies: 3
Number of Supervisor Tests: 10
Tolerance Check: yes
Data Collection: yes
Units: g/210L
Simulator Check: yes
Uses Wet Bath Simulator: yes
Simulator Nominal: 0.100
Digital Simulator: none
Simulator Before: yes
Simulator Between: yes
Simulator After: no
Number of Subject Tests: 2
AskQuestions: yes
Query Refusal: yes
Alcohol Display: yes
Show Two Digits: no
Volume Display: yes
Number of Calibration Tests: 1
Calibrate with Wet Bath: yes
Calibration Nominal: 0.100

Linearity Check Results

True Value	Reported Average	Std Dev
0.020 g/210L Lot # 10-34-020	0.019 g/210L	0.000
0.079 g/210L Lot # 10-37-080	0.080 g/210L	0.001
0.162 g/210L Lot # 11-06-160	0.159 g/210L	0.000
0.412 g/210L Lot # 11-07-400	0.397 g/210L	0.001

$R^2 = 0.9999$



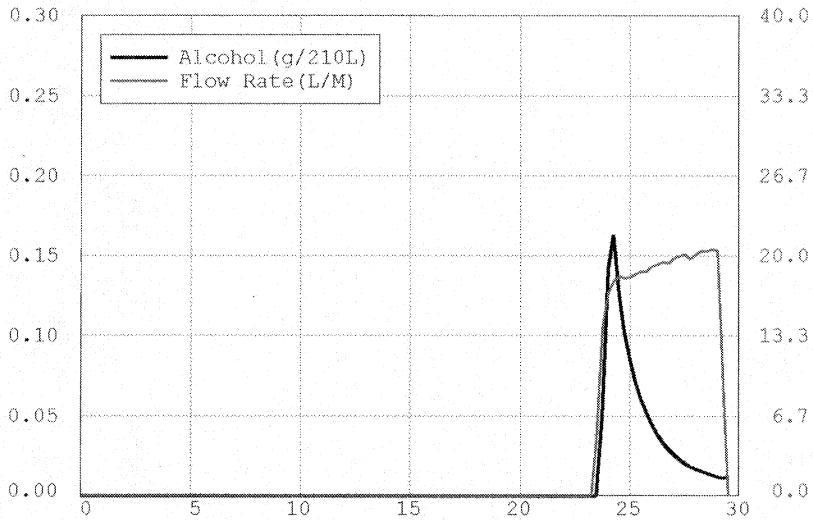
Acetone Interference Test

Lot # 11-11-08A1

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

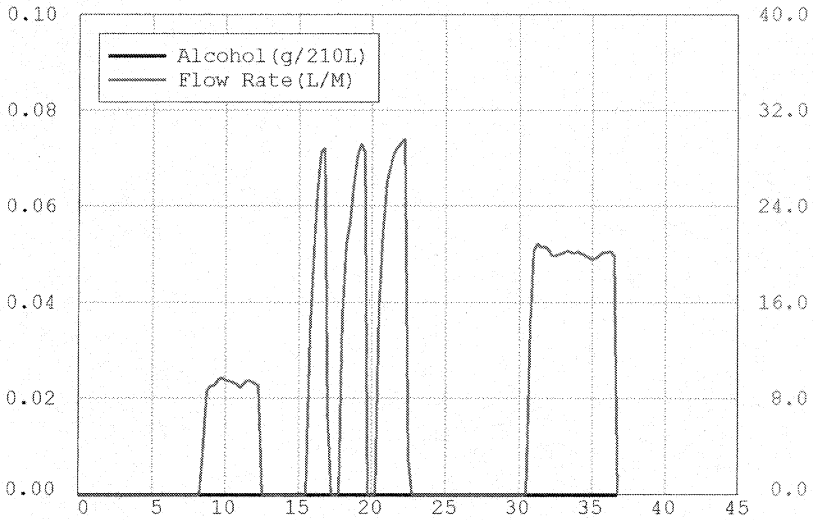


RF Interference Test

RFI detected

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by _____ **Date** 10/08/2010

Reviewed by _____ **Date** _____

Section 4: Linearity

DIAGNOSTIC RESULT

DataMaster DMT: 100162
Location:
Calibration Date: 10/08/2010
Certification Date: 10/08/2010
Installation Date: 10/08/2010
Test Date: 10/12/2010
Time: 13:28

VERMONT
DEPARTMENT OF HEALTH

VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.74°C
Breath Tube = 48.00°C

SETTINGS
Lamp Voltage = 2.24 V
Cooler Voltage = 1.76 V
Bias Voltage = 80.6 V
Chopper Freq = 540.9 Hz

PUMP INFO
Flow Rate = 6.260 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0085	0.0108
MIN(V)	0.0067	0.0096

FILTER INFO
Filter 1 0.009 Zero = true
Filter 2 0.260 Zero = true
Filter 3 1.074 Zero = true

CALIBRATION CHECK
Xq = 0.0899 0.10%

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

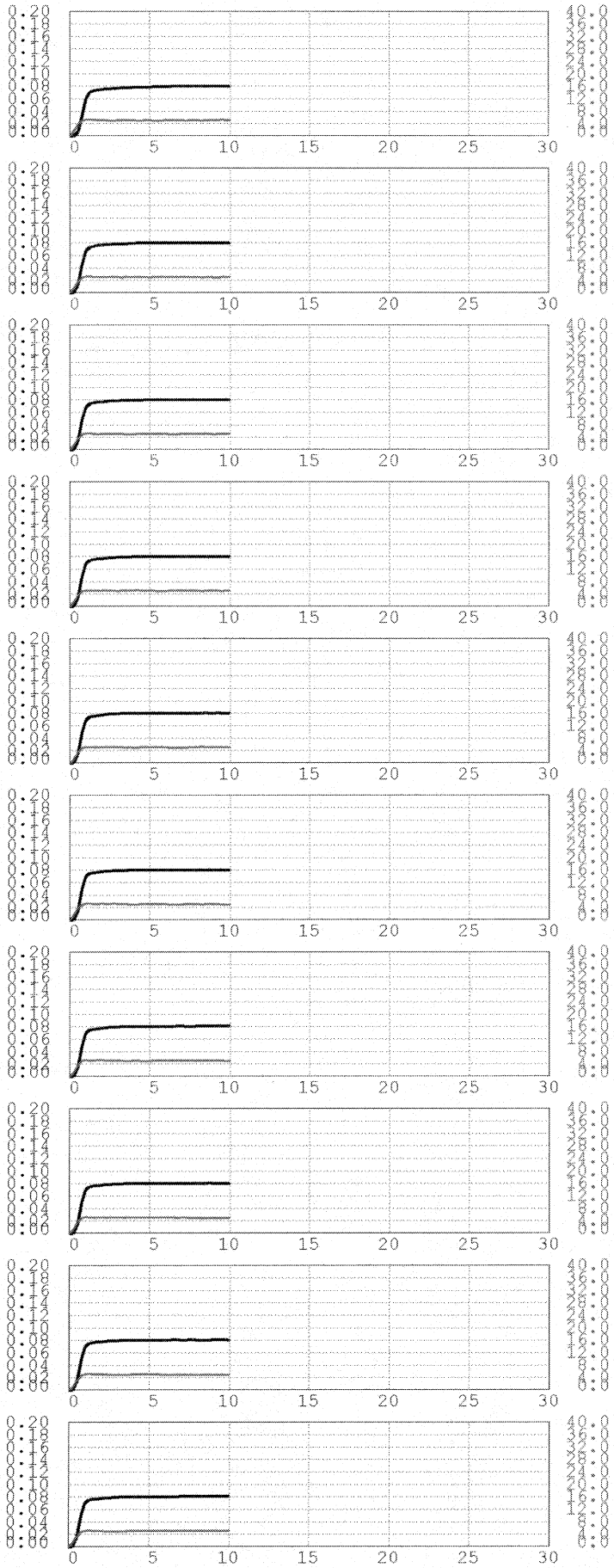
Date: 10/12/2010
Time: 13:31:53

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 10-37-080
SOLUTION CONCENTRATION: 0.079

BLANK TEST	0.000	13:32
CALIBRATION CHECK	PASSED	13:32
SIMULATOR VAPOR	0.080	13:33
SIMULATOR VAPOR	0.081	13:34
SIMULATOR VAPOR	0.080	13:35
SIMULATOR VAPOR	0.081	13:36
SIMULATOR VAPOR	0.081	13:37
SIMULATOR VAPOR	0.081	13:38
SIMULATOR VAPOR	0.081	13:39
SIMULATOR VAPOR	0.081	13:40
SIMULATOR VAPOR	0.081	13:41
SIMULATOR VAPOR	0.081	13:42
BLANK TEST	0.000	13:42

Average = 0.080
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

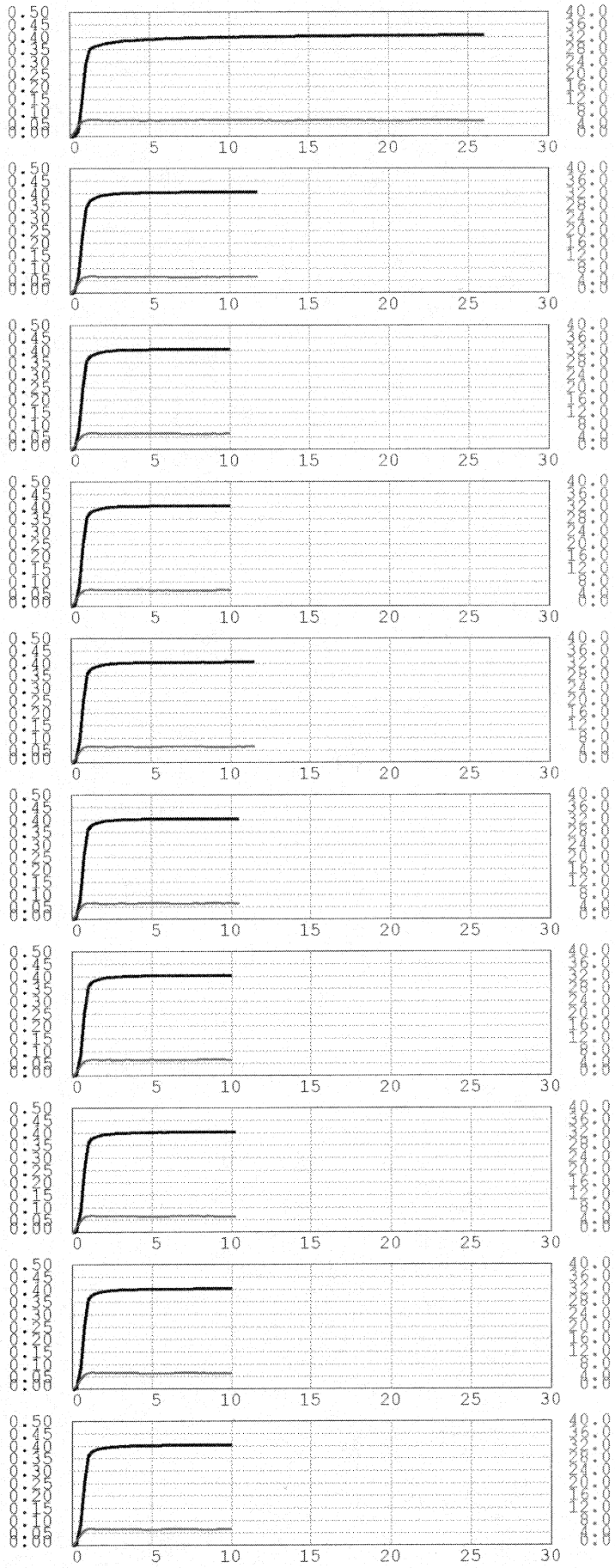
Date: 10/12/2010
Time: 13:46:22

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 11-07-400
SOLUTION CONCENTRATION: 0.412

BLANK TEST	0.000	13:47
CALIBRATION CHECK	PASSED	13:47
SIMULATOR VAPOR	0.405	13:47
SIMULATOR VAPOR	0.403	13:49
SIMULATOR VAPOR	0.402	13:50
SIMULATOR VAPOR	0.402	13:51
SIMULATOR VAPOR	0.402	13:52
SIMULATOR VAPOR	0.402	13:53
SIMULATOR VAPOR	0.402	13:54
SIMULATOR VAPOR	0.402	13:55
SIMULATOR VAPOR	0.401	13:56
SIMULATOR VAPOR	0.401	13:57
BLANK TEST	0.000	13:58

Average = 0.402
Std Dev = 0.0011



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

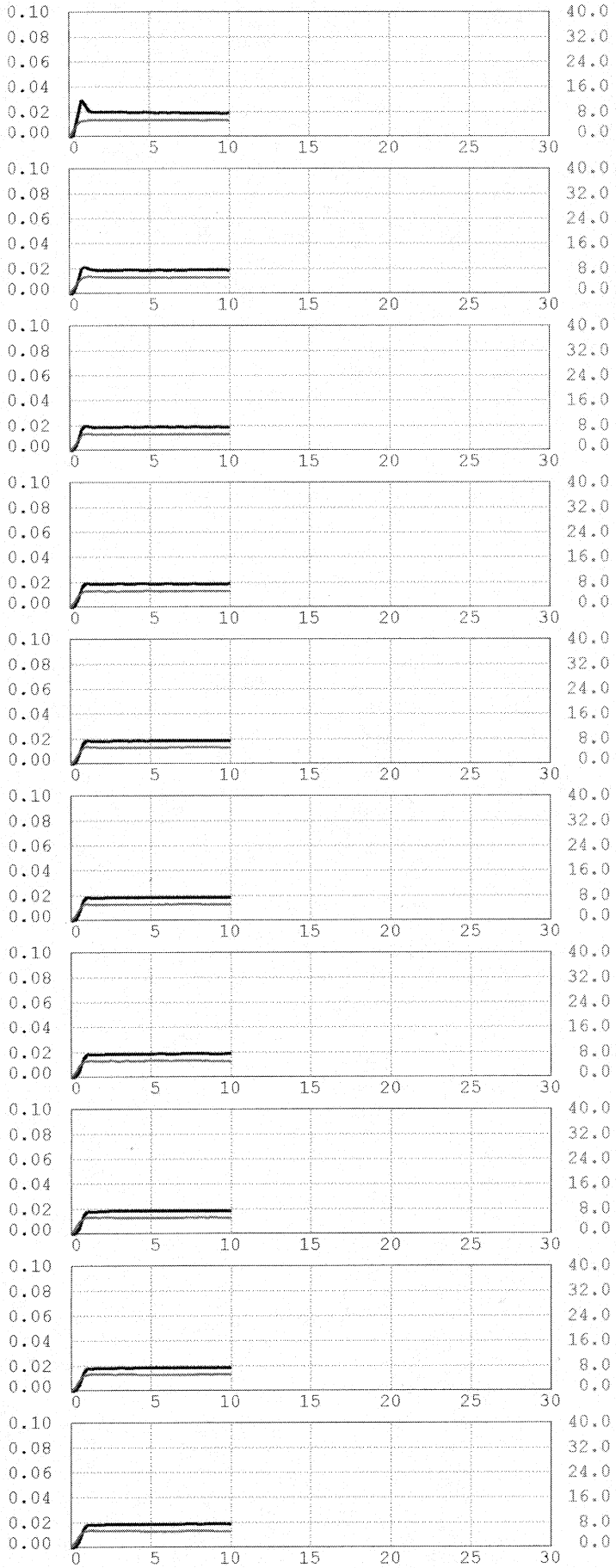
Date: 10/12/2010
Time: 14:22:43

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 10-34-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	14:23
CALIBRATION CHECK	PASSED	14:23
SIMULATOR VAPOR	0.019	14:24
SIMULATOR VAPOR	0.019	14:25
SIMULATOR VAPOR	0.019	14:26
SIMULATOR VAPOR	0.019	14:26
SIMULATOR VAPOR	0.019	14:27
SIMULATOR VAPOR	0.019	14:28
SIMULATOR VAPOR	0.019	14:29
SIMULATOR VAPOR	0.019	14:30
SIMULATOR VAPOR	0.019	14:31
SIMULATOR VAPOR	0.019	14:32
BLANK TEST	0.000	14:33

Average = 0.019
Std Dev = 0.0000



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

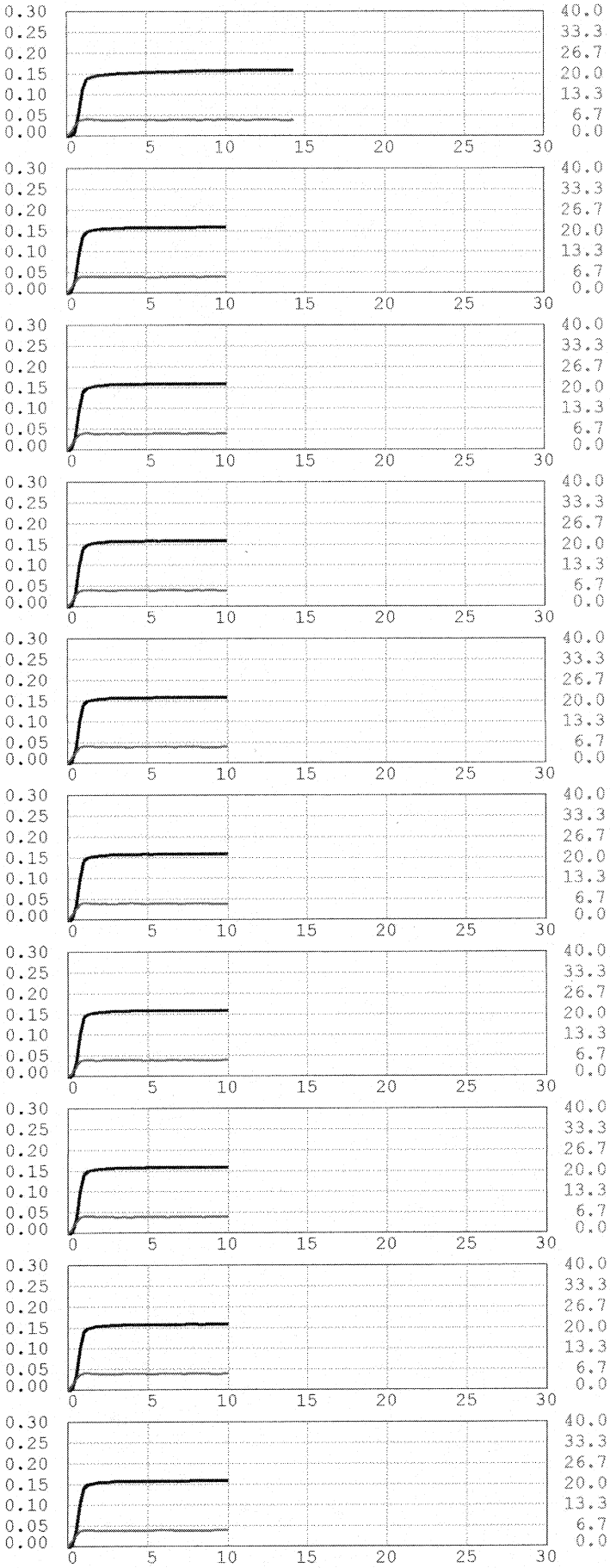
Date: 10/12/2010
Time: 14:39:42

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 11-06-160
SOLUTION CONCENTRATION: 0.162

BLANK TEST	0.000	14:40
CALIBRATION CHECK	PASSED	14:40
SIMULATOR VAPOR	0.158	14:41
SIMULATOR VAPOR	0.158	14:42
SIMULATOR VAPOR	0.158	14:43
SIMULATOR VAPOR	0.158	14:44
SIMULATOR VAPOR	0.158	14:45
SIMULATOR VAPOR	0.158	14:46
SIMULATOR VAPOR	0.158	14:47
SIMULATOR VAPOR	0.158	14:48
SIMULATOR VAPOR	0.157	14:49
SIMULATOR VAPOR	0.158	14:50
BLANK TEST	0.000	14:50

Average = 0.157
Std Dev = 0.0003



DIAGNOSTIC RESULT

DataMaster DMT: 100162
Location:
Calibration Date: 10/08/2010
Certification Date: 10/08/2010
Installation Date: 10/08/2010
Test Date: 10/12/2010
Time: 08:57

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube    = 48.07°C

SETTINGS
Lamp Voltage   = 2.24 V
Cooler Voltage = 1.77 V
Bias Voltage   = 80.6 V
Chopper Freq   = 541.5 Hz

PUMP INFO
Flow Rate = 6.257 L/M

DETECTOR INFO
PUMP    ON       OFF
MAX(V)  0.0067   0.0096
MIN(V)  0.0055   0.0083

FILTER INFO
Filter 1  0.009  Zero = true
Filter 2  0.257  Zero = true
Filter 3  1.073  Zero = true

CALIBRATION CHECK
Xq = 0.0893  0.49%
```

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

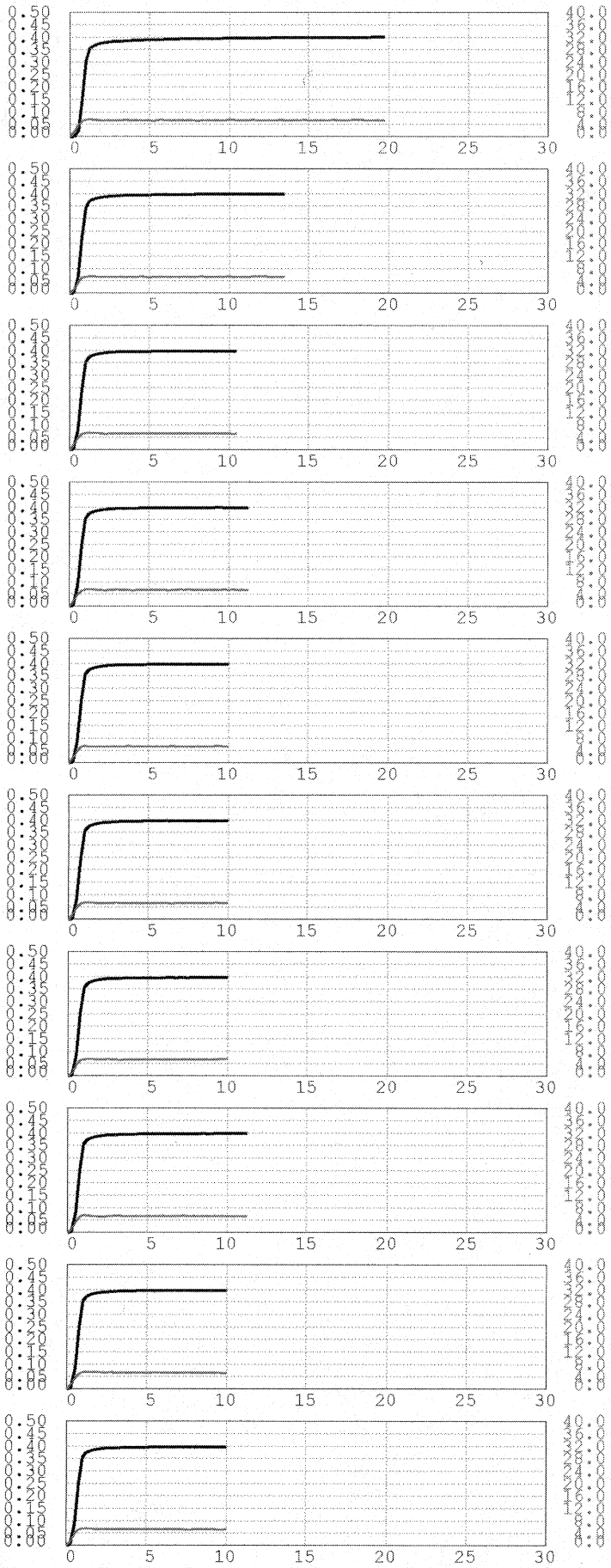
Date: 10/12/2010
Time: 09:05:19

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 11-07-400
SOLUTION CONCENTRATION: 0.412

BLANK TEST	0.000	09:06
CALIBRATION CHECK	PASSED	09:06
SIMULATOR VAPOR	0.398	09:06
SIMULATOR VAPOR	0.398	09:08
SIMULATOR VAPOR	0.395	09:09
SIMULATOR VAPOR	0.395	09:10
SIMULATOR VAPOR	0.395	09:11
SIMULATOR VAPOR	0.395	09:12
SIMULATOR VAPOR	0.394	09:13
SIMULATOR VAPOR	0.397	09:14
SIMULATOR VAPOR	0.395	09:15
SIMULATOR VAPOR	0.395	09:16
BLANK TEST	0.000	09:16

Average = 0.395
Std Dev = 0.0014



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

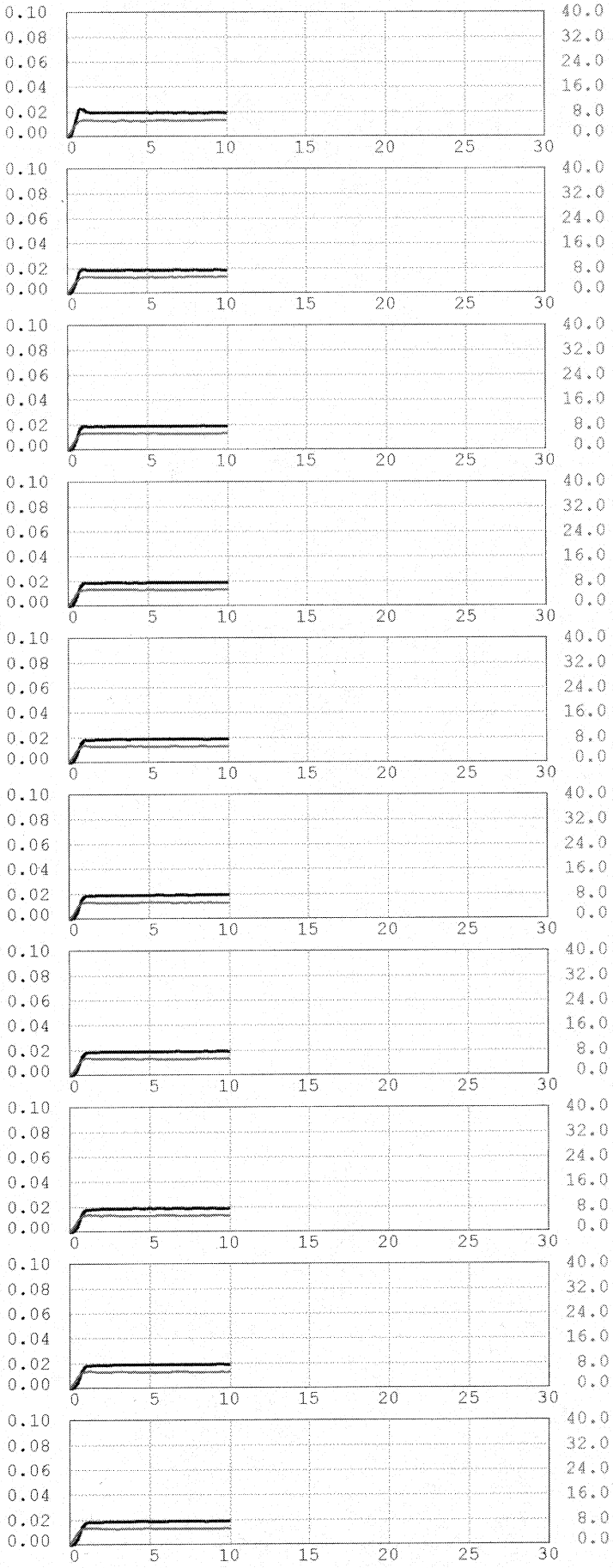
Date: 10/12/2010
Time: 09:39:15

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 10-34-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	09:40
CALIBRATION CHECK	PASSED	09:40
SIMULATOR VAPOR	0.019	09:40
SIMULATOR VAPOR	0.019	09:41
SIMULATOR VAPOR	0.019	09:42
SIMULATOR VAPOR	0.019	09:43
SIMULATOR VAPOR	0.019	09:44
SIMULATOR VAPOR	0.019	09:45
SIMULATOR VAPOR	0.020	09:46
SIMULATOR VAPOR	0.019	09:47
SIMULATOR VAPOR	0.019	09:48
SIMULATOR VAPOR	0.019	09:49
BLANK TEST	0.000	09:50

Average = 0.019
Std Dev = 0.0003



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

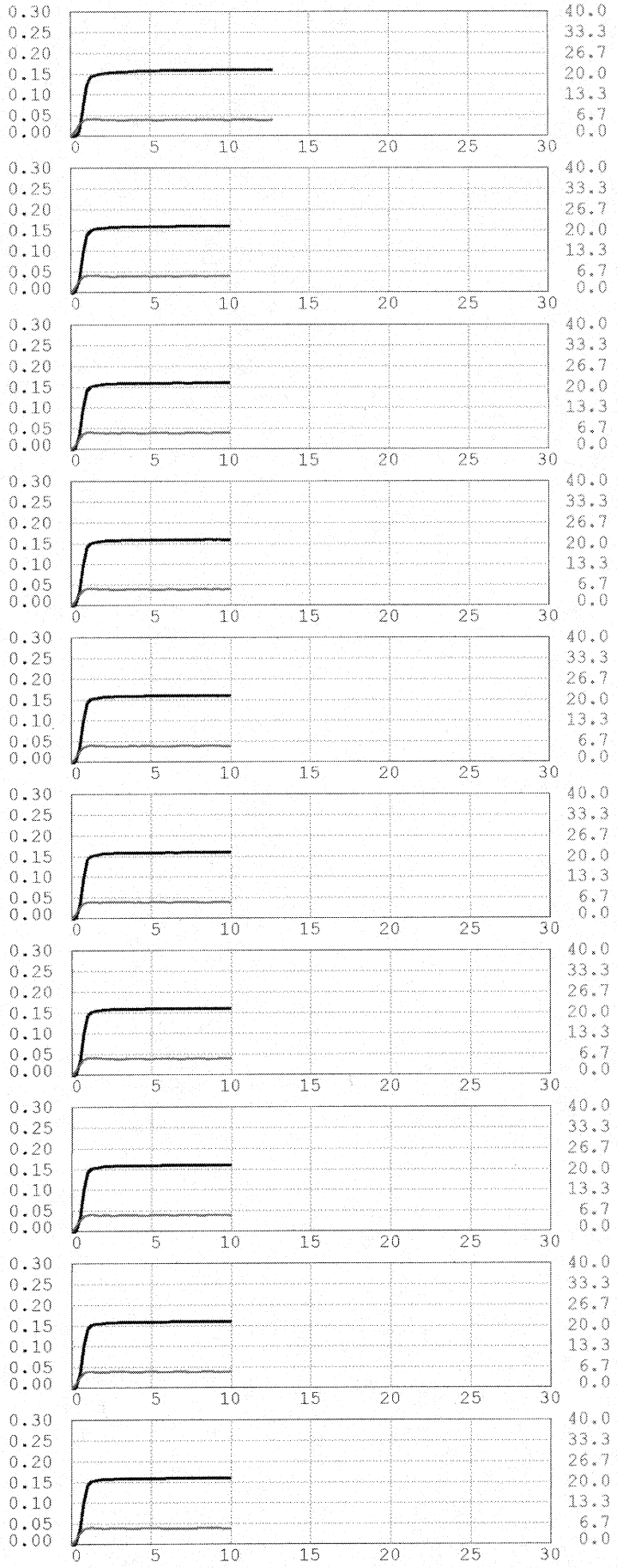
Date: 10/12/2010
Time: 09:55:07

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 11-06-160
SOLUTION CONCENTRATION: 0.162

BLANK TEST	0.000	09:56
CALIBRATION CHECK	PASSED	09:56
SIMULATOR VAPOR	0.160	09:56
SIMULATOR VAPOR	0.159	09:57
SIMULATOR VAPOR	0.159	09:58
SIMULATOR VAPOR	0.159	09:59
SIMULATOR VAPOR	0.159	10:00
SIMULATOR VAPOR	0.159	10:01
SIMULATOR VAPOR	0.160	10:02
SIMULATOR VAPOR	0.159	10:03
SIMULATOR VAPOR	0.159	10:04
SIMULATOR VAPOR	0.159	10:05
BLANK TEST	0.000	10:06

Average = 0.159
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

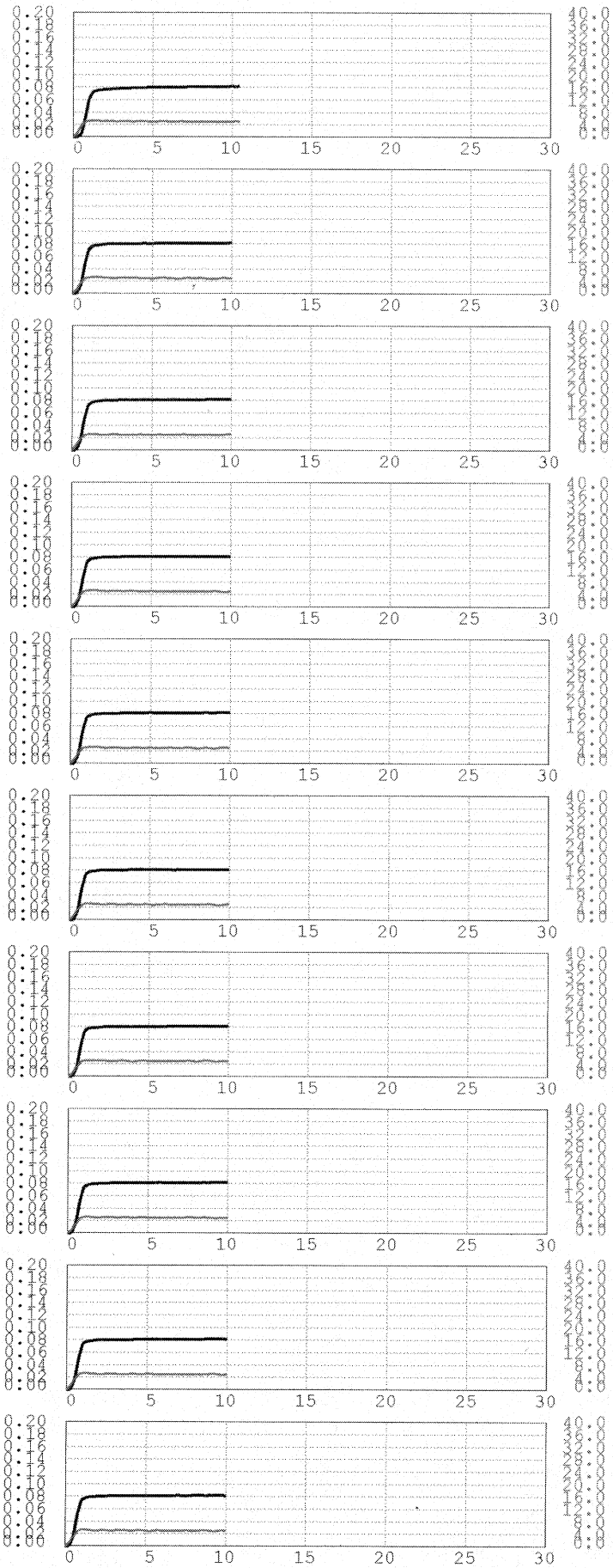
Date: 10/12/2010
Time: 10:16:37

SUPERVISOR NAME: ALB LINEARITY

SOLUTION LOT #: 10-37-080
SOLUTION CONCENTRATION: 0.079

BLANK TEST	0.000	10:17
CALIBRATION CHECK	PASSED	10:17
SIMULATOR VAPOR	0.082	10:17
SIMULATOR VAPOR	0.082	10:18
SIMULATOR VAPOR	0.081	10:19
SIMULATOR VAPOR	0.082	10:20
SIMULATOR VAPOR	0.082	10:21
SIMULATOR VAPOR	0.082	10:22
SIMULATOR VAPOR	0.081	10:23
SIMULATOR VAPOR	0.082	10:24
SIMULATOR VAPOR	0.082	10:25
SIMULATOR VAPOR	0.082	10:26
BLANK TEST	0.000	10:27

Average = 0.081
Std Dev = 0.0004



DIAGNOSTIC RESULT

DataMaster DMT: 100162
Location:
Calibration Date: 10/08/2010
Certification Date: 10/08/2010
Installation Date: 10/08/2010
Test Date: 10/13/2010
Time: 10:34

VERMONT
DEPARTMENT OF HEALTH

VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.68°C
Breath Tube = 48.07°C

SETTINGS
Lamp Voltage = 2.24 V
Cooler Voltage = 1.77 V
Bias Voltage = 80.6 V
Chopper Freq = 542.5 Hz

PUMP INFO
Flow Rate = 6.410 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0173	0.0193
MIN(V)	0.0159	0.0179

FILTER INFO
Filter 1 0.018 Zero = true
Filter 2 0.270 Zero = true
Filter 3 1.090 Zero = true

CALIBRATION CHECK
Xq = 0.0899 0.19%

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

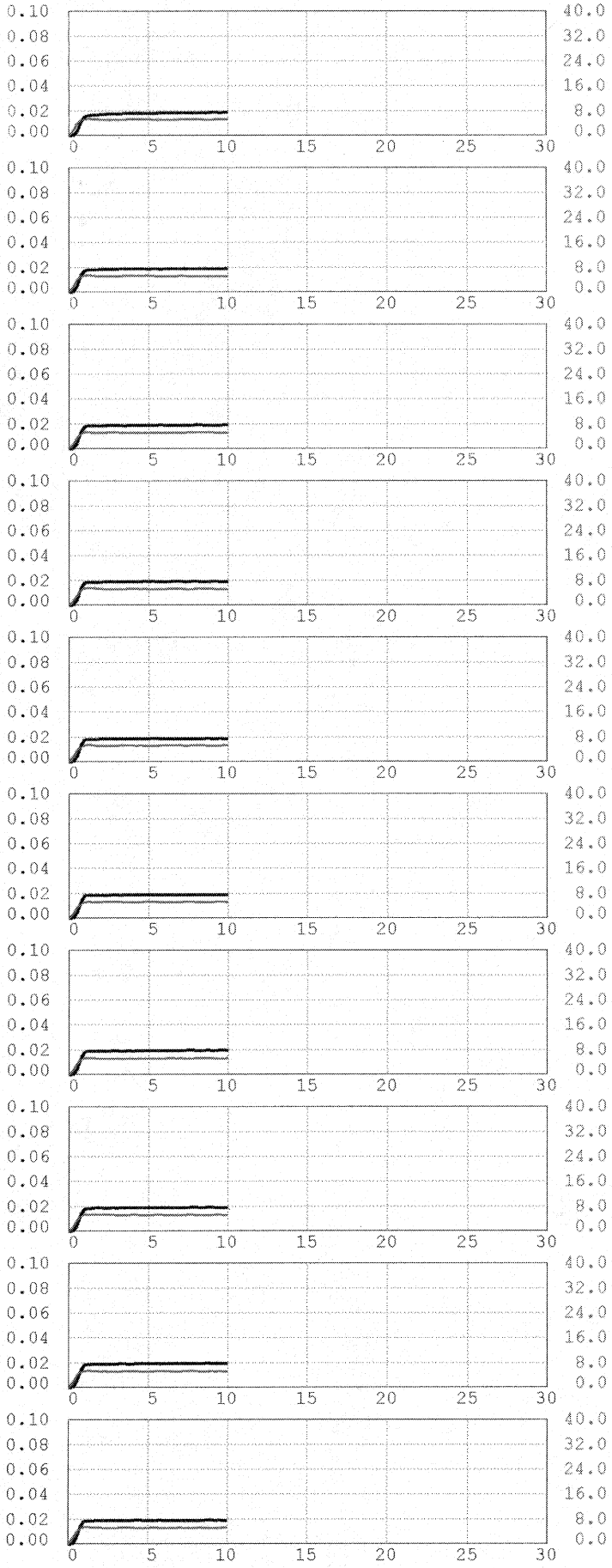
Date: 10/13/2010
Time: 10:58:53

SUPERVISOR NAME: SEH #3

SOLUTION LOT #: 10-34-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST		0.000	10:59
CALIBRATION CHECK		PASSED	10:59
Xq = 0.0906 (0.87%)			
SIMULATOR VAPOR		0.019	11:00
X[1] = 0.0194	(-0.0012)	(0.0008)	
SIMULATOR VAPOR		0.019	11:01
X[1] = 0.0196	(-0.0013)	(0.0004)	
SIMULATOR VAPOR		0.019	11:02
X[1] = 0.0197	(-0.0011)	(0.0005)	
SIMULATOR VAPOR		0.019	11:03
X[1] = 0.0198	(-0.0013)	(-0.0001)	
SIMULATOR VAPOR		0.019	11:04
X[1] = 0.0192	(-0.0027)	(0.0004)	
SIMULATOR VAPOR		0.019	11:05
X[1] = 0.0195	(-0.0023)	(0.0003)	
SIMULATOR VAPOR		0.019	11:06
X[1] = 0.0199	(-0.0016)	(0.0007)	
SIMULATOR VAPOR		0.019	11:07
X[1] = 0.0197	(-0.0016)	(0.0003)	
SIMULATOR VAPOR		0.019	11:08
X[1] = 0.0197	(-0.0009)	(0.0007)	
SIMULATOR VAPOR		0.019	11:09
X[1] = 0.0196	(-0.0017)	(-0.0004)	
BLANK TEST		0.000	11:09

Average = 0.019
Std Dev = 0.0000



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

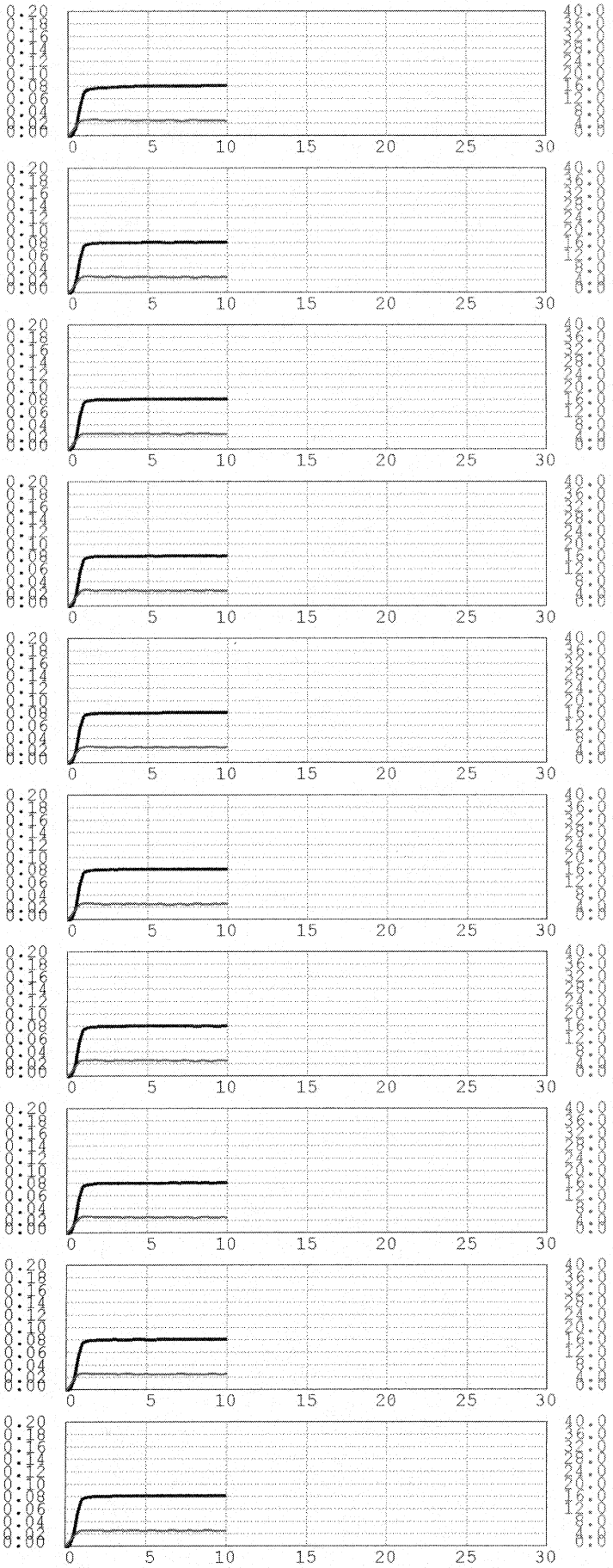
Date: 10/13/2010
Time: 11:47:10

SUPERVISOR NAME: SEH #3

SOLUTION LOT #: 10-37-080
SOLUTION CONCENTRATION: 0.079

BLANK TEST		0.000	11:48
CALIBRATION CHECK		PASSED	11:48
Xq = 0.0899 (0.10%)			
SIMULATOR VAPOR		0.081	11:48
X[1] = 0.0817	(-0.0014)	(0.0025)	
SIMULATOR VAPOR		0.081	11:49
X[1] = 0.0816	(-0.0017)	(0.0022)	
SIMULATOR VAPOR		0.081	11:50
X[1] = 0.0818	(-0.0013)	(0.0023)	
SIMULATOR VAPOR		0.081	11:51
X[1] = 0.0816	(-0.0014)	(0.0012)	
SIMULATOR VAPOR		0.081	11:52
X[1] = 0.0816	(-0.0020)	(0.0017)	
SIMULATOR VAPOR		0.081	11:53
X[1] = 0.0819	(-0.0015)	(0.0020)	
SIMULATOR VAPOR		0.081	11:54
X[1] = 0.0816	(-0.0020)	(0.0016)	
SIMULATOR VAPOR		0.081	11:55
X[1] = 0.0812	(-0.0022)	(0.0015)	
SIMULATOR VAPOR		0.081	11:56
X[1] = 0.0818	(-0.0013)	(0.0021)	
SIMULATOR VAPOR		0.081	11:57
X[1] = 0.0816	(-0.0009)	(0.0016)	
BLANK TEST		0.000	11:58

Average = 0.081
Std Dev = 0.0000



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

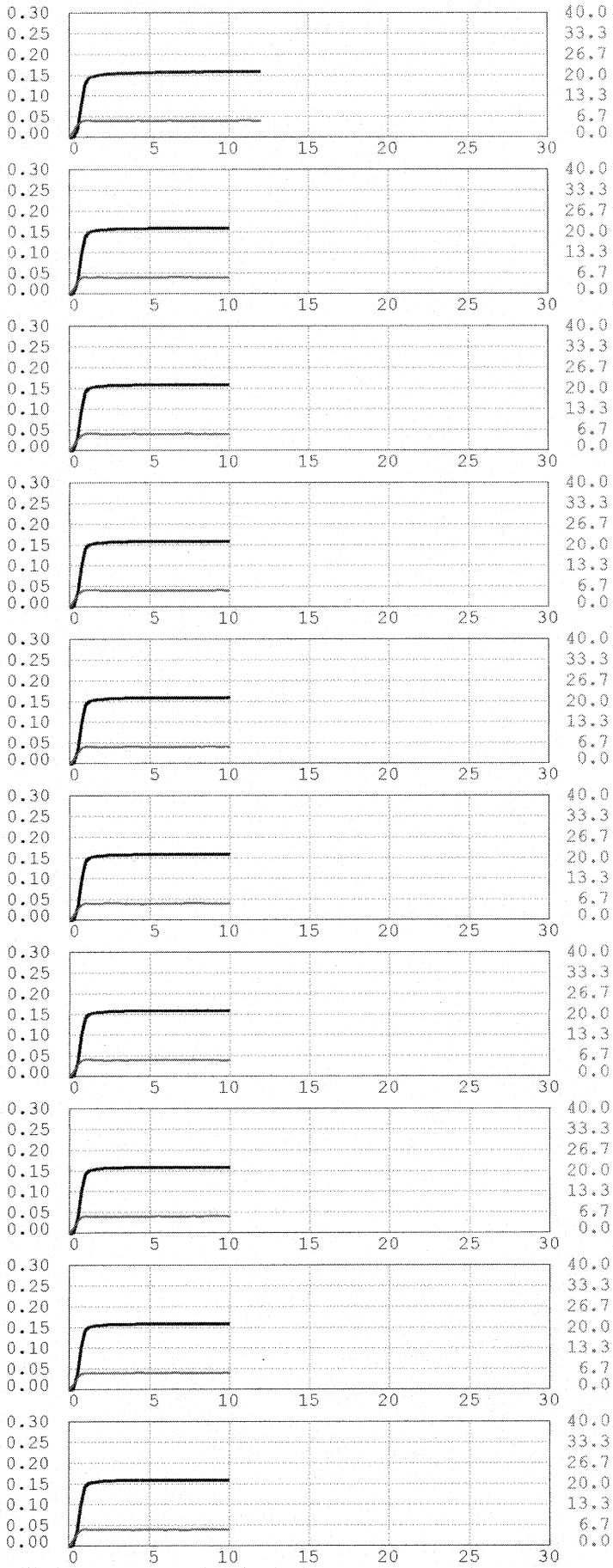
Date: 10/13/2010
Time: 10:35:58

SUPERVISOR NAME: SEH #3

SOLUTION LOT #: 11-06-160
SOLUTION CONCENTRATION: 0.162

BLANK TEST		0.000	10:36
CALIBRATION CHECK		PASSED	10:37
Xq = 0.0901 (0.39%)			
SIMULATOR VAPOR		0.158	10:37
X[1] = 0.1588	(-0.0010)	(0.0017)	
SIMULATOR VAPOR		0.159	10:38
X[1] = 0.1590	(-0.0007)	(0.0018)	
SIMULATOR VAPOR		0.159	10:39
X[1] = 0.1593	(-0.0010)	(0.0012)	
SIMULATOR VAPOR		0.158	10:40
X[1] = 0.1589	(-0.0005)	(0.0008)	
SIMULATOR VAPOR		0.159	10:41
X[1] = 0.1595	(-0.0004)	(0.0011)	
SIMULATOR VAPOR		0.159	10:42
X[1] = 0.1591	(-0.0017)	(0.0013)	
SIMULATOR VAPOR		0.158	10:43
X[1] = 0.1589	(-0.0017)	(0.0011)	
SIMULATOR VAPOR		0.158	10:44
X[1] = 0.1588	(-0.0014)	(0.0012)	
SIMULATOR VAPOR		0.159	10:45
X[1] = 0.1591	(-0.0012)	(0.0011)	
SIMULATOR VAPOR		0.159	10:46
X[1] = 0.1591	(-0.0011)	(0.0012)	
BLANK TEST		0.000	10:47

Average = 0.158
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

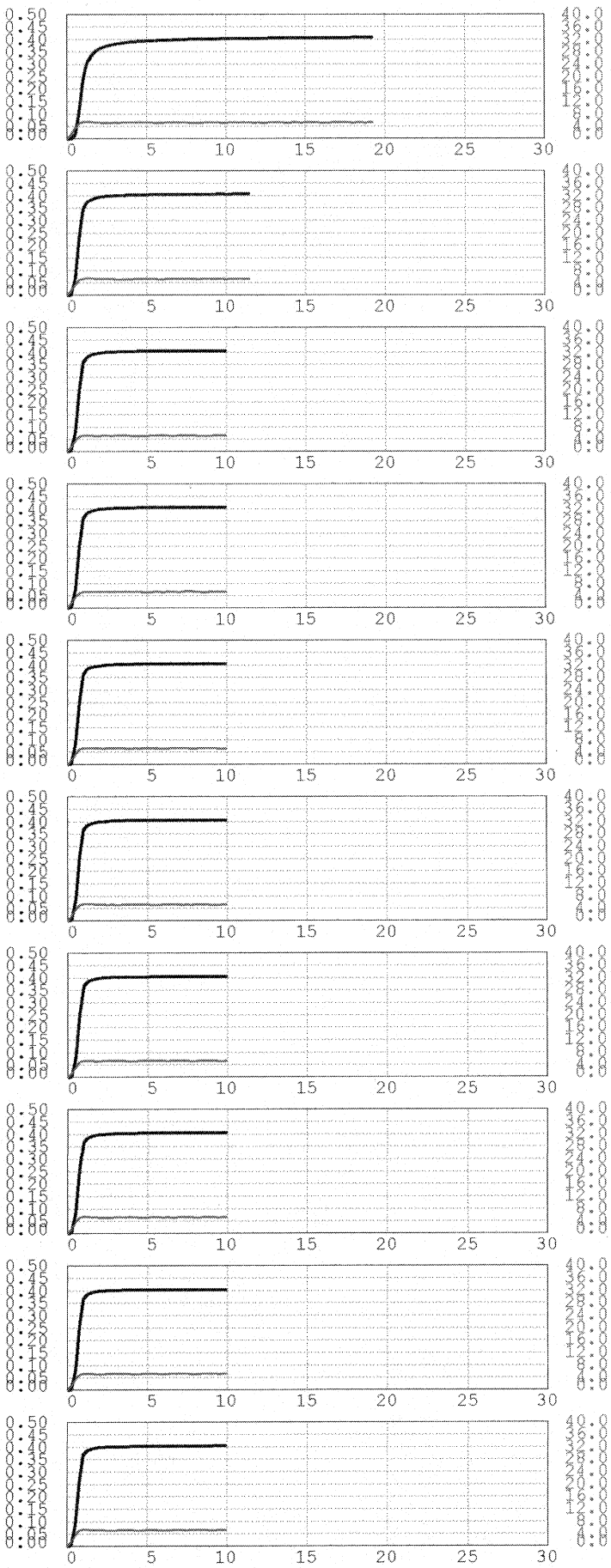
Date: 10/13/2010
Time: 11:22:03

SUPERVISOR NAME: SEH #3

SOLUTION LOT #: 11-07-400
SOLUTION CONCENTRATION: 0.412

BLANK TEST	0.000	11:22
CALIBRATION CHECK	PASSED	11:23
Xq = 0.0902 (0.48%)		
SIMULATOR VAPOR	0.405	11:23
X[1] = 0.4050 (0.0014) (0.0087)		
SIMULATOR VAPOR	0.405	11:24
X[1] = 0.4056 (0.0017) (0.0084)		
SIMULATOR VAPOR	0.403	11:25
X[1] = 0.4039 (0.0001) (0.0073)		
SIMULATOR VAPOR	0.403	11:26
X[1] = 0.4032 (0.0001) (0.0067)		
SIMULATOR VAPOR	0.404	11:27
X[1] = 0.4046 (0.0009) (0.0070)		
SIMULATOR VAPOR	0.403	11:28
X[1] = 0.4031 (0.0001) (0.0072)		
SIMULATOR VAPOR	0.404	11:29
X[1] = 0.4042 (0.0004) (0.0072)		
SIMULATOR VAPOR	0.404	11:30
X[1] = 0.4045 (0.0009) (0.0076)		
SIMULATOR VAPOR	0.403	11:31
X[1] = 0.4032 (0.0005) (0.0070)		
SIMULATOR VAPOR	0.403	11:32
X[1] = 0.4031 (0.0005) (0.0075)		
BLANK TEST	0.000	11:33

Average = 0.403
Std Dev = 0.0008



DIAGNOSTIC RESULT

DataMaster DMT: 100162
Location:
Calibration Date: 10/08/2010
Certification Date: 10/08/2010
Installation Date: 10/08/2010
Test Date: 10/14/2010
Time: 06:01

VERMONT
DEPARTMENT OF HEALTH

VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.97°C
Breath Tube = 47.90°C

SETTINGS
Lamp Voltage = 2.24 V
Cooler Voltage = 1.76 V
Bias Voltage = 80.6 V
Chopper Freq = 542.2 Hz

PUMP INFO
Flow Rate = 6.392 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0077	0.0096
MIN(V)	0.0061	0.0083

FILTER INFO
Filter 1 0.009 Zero = true
Filter 2 0.261 Zero = true
Filter 3 1.075 Zero = true

CALIBRATION CHECK
Xq = 0.0900 0.29%

ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

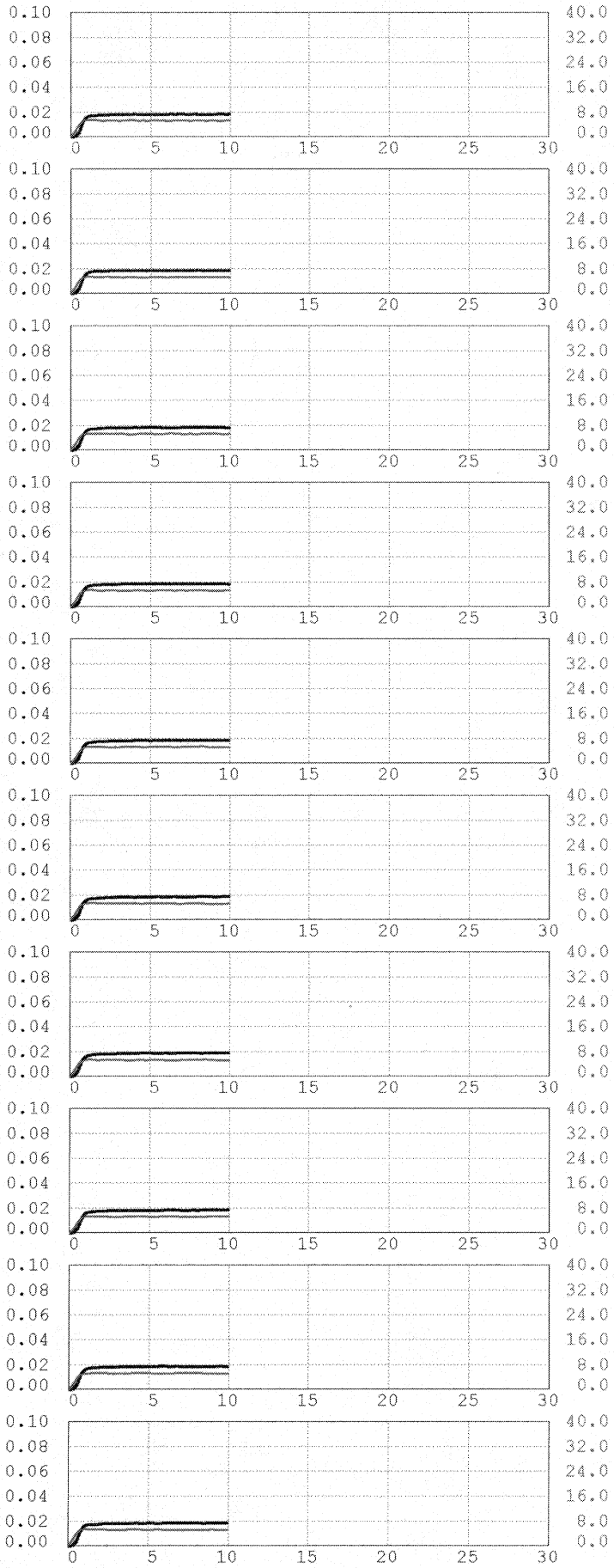
Date: 10/14/2010
Time: 06:03:19

SUPERVISOR NAME: SEH #4

SOLUTION LOT #: 10-34-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST		0.000	06:04
CALIBRATION CHECK		PASSED	06:04
Xq = 0.0899 (0.10%)			
SIMULATOR VAPOR		0.019	06:04
X[1] = 0.0192	(-0.0011)	(0.0009)	
SIMULATOR VAPOR		0.019	06:05
X[1] = 0.0194	(-0.0008)	(0.0003)	
SIMULATOR VAPOR		0.019	06:06
X[1] = 0.0194	(-0.0012)	(0.0002)	
SIMULATOR VAPOR		0.019	06:07
X[1] = 0.0193	(-0.0019)	(0.0003)	
SIMULATOR VAPOR		0.019	06:08
X[1] = 0.0194	(-0.0014)	(0.0006)	
SIMULATOR VAPOR		0.019	06:09
X[1] = 0.0196	(-0.0016)	(0.0001)	
SIMULATOR VAPOR		0.019	06:10
X[1] = 0.0196	(-0.0010)	(0.0001)	
SIMULATOR VAPOR		0.019	06:11
X[1] = 0.0193	(-0.0012)	(0.0000)	
SIMULATOR VAPOR		0.019	06:12
X[1] = 0.0197	(-0.0015)	(0.0001)	
SIMULATOR VAPOR		0.019	06:13
X[1] = 0.0195	(-0.0016)	(0.0003)	
BLANK TEST		0.000	06:14

Average = 0.019
Std Dev = 0.0000



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

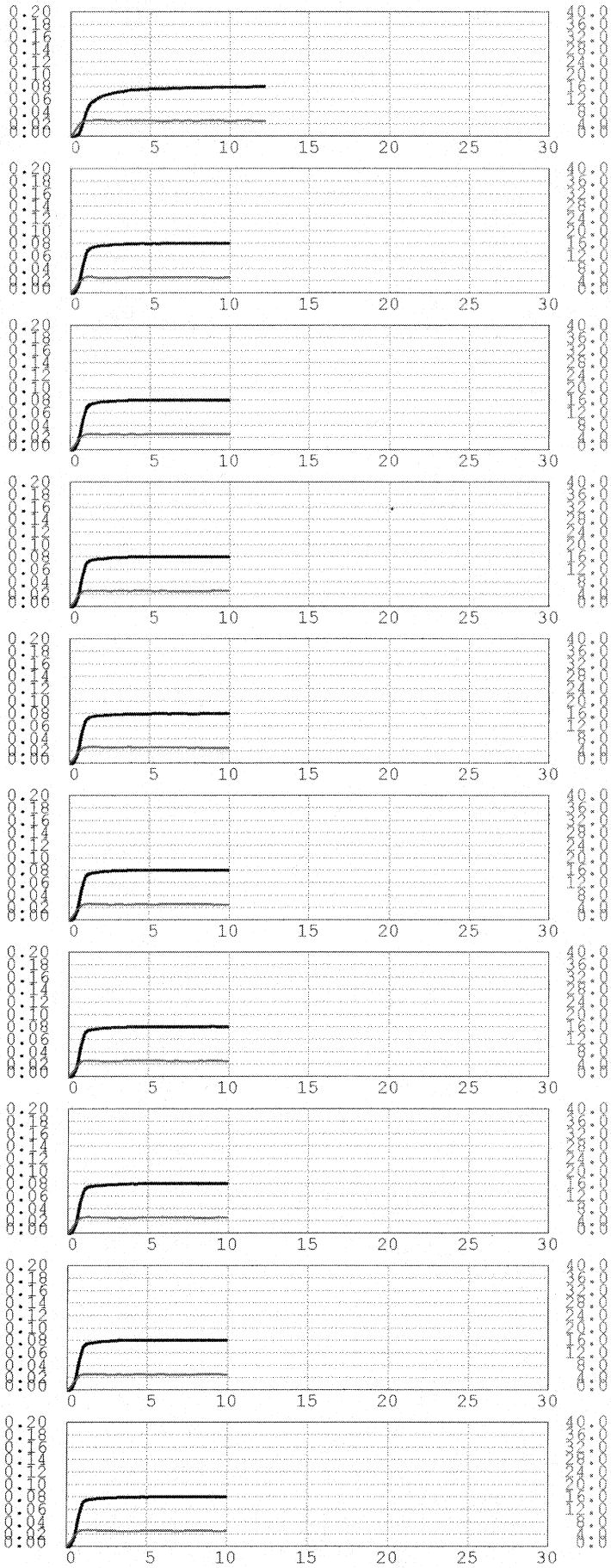
Date: 10/14/2010
Time: 06:28:04

SUPERVISOR NAME: SEH #4

SOLUTION LOT #: 10-37-080
SOLUTION CONCENTRATION: 0.079

BLANK TEST		0.000	06:28
CALIBRATION CHECK		PASSED	06:29
Xq = 0.0899 (0.10%)			
SIMULATOR VAPOR		0.080	06:29
X[1] = 0.0805	(-0.0013)	(0.0016)	
SIMULATOR VAPOR		0.080	06:30
X[1] = 0.0808	(-0.0011)	(0.0012)	
SIMULATOR VAPOR		0.080	06:31
X[1] = 0.0807	(-0.0016)	(0.0007)	
SIMULATOR VAPOR		0.081	06:32
X[1] = 0.0810	(-0.0017)	(0.0013)	
SIMULATOR VAPOR		0.080	06:33
X[1] = 0.0806	(-0.0016)	(0.0013)	
SIMULATOR VAPOR		0.081	06:34
X[1] = 0.0812	(-0.0011)	(0.0008)	
SIMULATOR VAPOR		0.081	06:35
X[1] = 0.0811	(-0.0013)	(0.0012)	
SIMULATOR VAPOR		0.080	06:36
X[1] = 0.0808	(-0.0011)	(0.0011)	
SIMULATOR VAPOR		0.081	06:37
X[1] = 0.0814	(-0.0010)	(0.0009)	
SIMULATOR VAPOR		0.080	06:38
X[1] = 0.0805	(-0.0020)	(0.0008)	
BLANK TEST		0.000	06:39

Average = 0.080
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

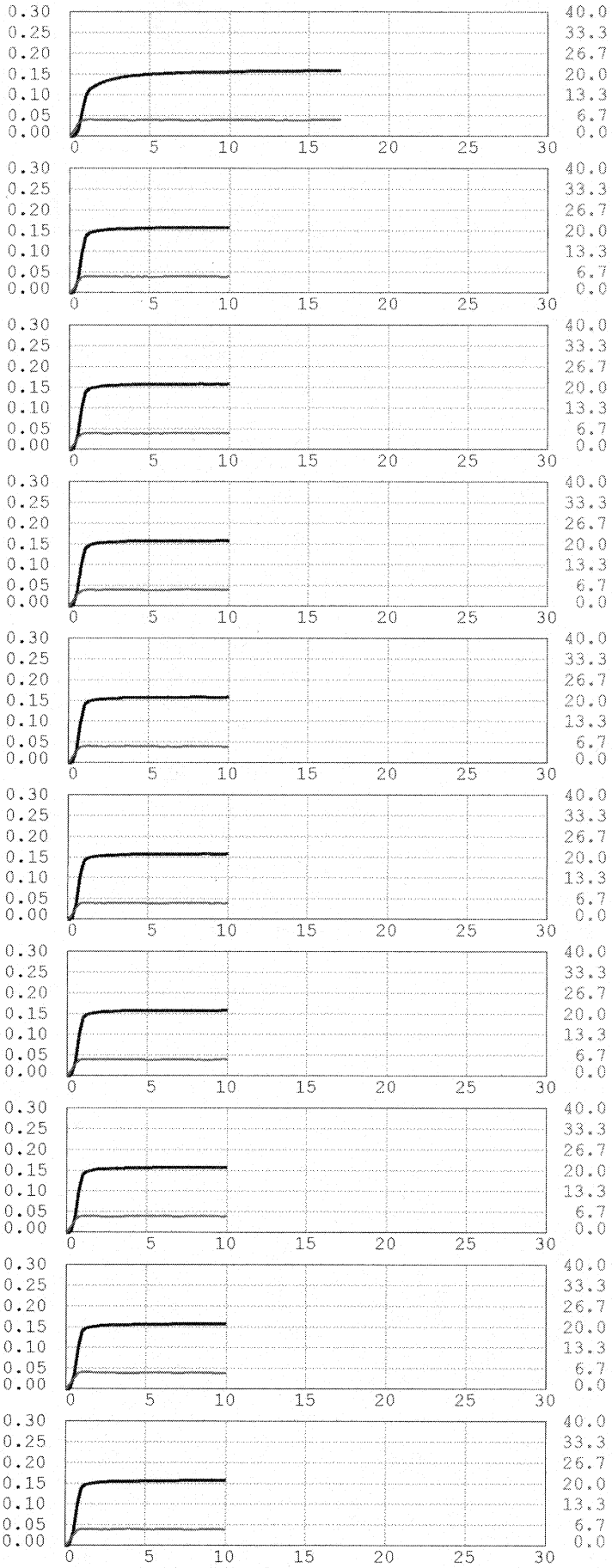
Date: 10/14/2010
Time: 06:46:56

SUPERVISOR NAME: SEH #4

SOLUTION LOT #: 11-06-160
SOLUTION CONCENTRATION: 0.162

BLANK TEST		0.000	06:47
CALIBRATION CHECK		PASSED	06:47
Xq = 0.0906 (0.87%)			
SIMULATOR VAPOR		0.158	06:48
X[1] = 0.1580	(-0.0005)	(0.0022)	
SIMULATOR VAPOR		0.157	06:49
X[1] = 0.1573	(-0.0008)	(0.0016)	
SIMULATOR VAPOR		0.157	06:50
X[1] = 0.1577	(-0.0010)	(0.0013)	
SIMULATOR VAPOR		0.157	06:51
X[1] = 0.1579	(-0.0015)	(0.0010)	
SIMULATOR VAPOR		0.157	06:52
X[1] = 0.1579	(-0.0008)	(0.0016)	
SIMULATOR VAPOR		0.157	06:53
X[1] = 0.1578	(-0.0015)	(0.0015)	
SIMULATOR VAPOR		0.157	06:54
X[1] = 0.1578	(-0.0007)	(0.0011)	
SIMULATOR VAPOR		0.157	06:55
X[1] = 0.1570	(-0.0016)	(0.0011)	
SIMULATOR VAPOR		0.156	06:56
X[1] = 0.1564	(-0.0009)	(0.0014)	
SIMULATOR VAPOR		0.156	06:57
X[1] = 0.1567	(-0.0011)	(0.0013)	
BLANK TEST		0.000	06:58

Average = 0.156
Std Dev = 0.0005



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

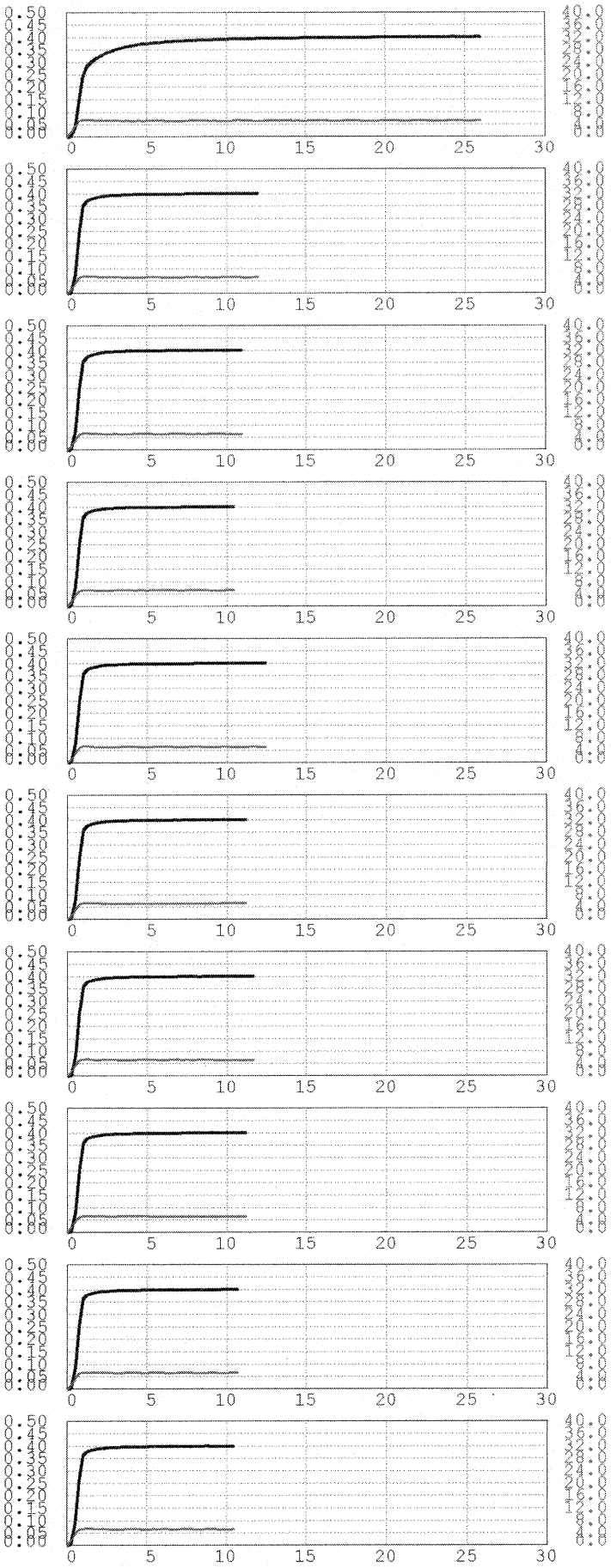
Date: 10/14/2010
Time: 07:00:38

SUPERVISOR NAME: SEH #4

SOLUTION LOT #: 11-07-400
SOLUTION CONCENTRATION: 0.412

BLANK TEST	0.000	07:01
CALIBRATION CHECK	PASSED	07:01
Xq = 0.0905 (0.78%)		
SIMULATOR VAPOR	0.401	07:02
X[1] = 0.4011 (0.0013) (0.0066)		
SIMULATOR VAPOR	0.400	07:03
X[1] = 0.4000 (0.0012) (0.0062)		
SIMULATOR VAPOR	0.400	07:04
X[1] = 0.4003 (0.0017) (0.0055)		
SIMULATOR VAPOR	0.399	07:05
X[1] = 0.3998 (0.0008) (0.0055)		
SIMULATOR VAPOR	0.399	07:06
X[1] = 0.3999 (0.0006) (0.0056)		
SIMULATOR VAPOR	0.399	07:07
X[1] = 0.3995 (0.0013) (0.0054)		
SIMULATOR VAPOR	0.400	07:08
X[1] = 0.4002 (0.0007) (0.0058)		
SIMULATOR VAPOR	0.400	07:09
X[1] = 0.4003 (0.0005) (0.0057)		
SIMULATOR VAPOR	0.399	07:10
X[1] = 0.3992 (0.0006) (0.0055)		
SIMULATOR VAPOR	0.399	07:11
X[1] = 0.3992 (0.0005) (0.0057)		
BLANK TEST	0.000	07:12

Average = 0.399
Std Dev = 0.0006



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

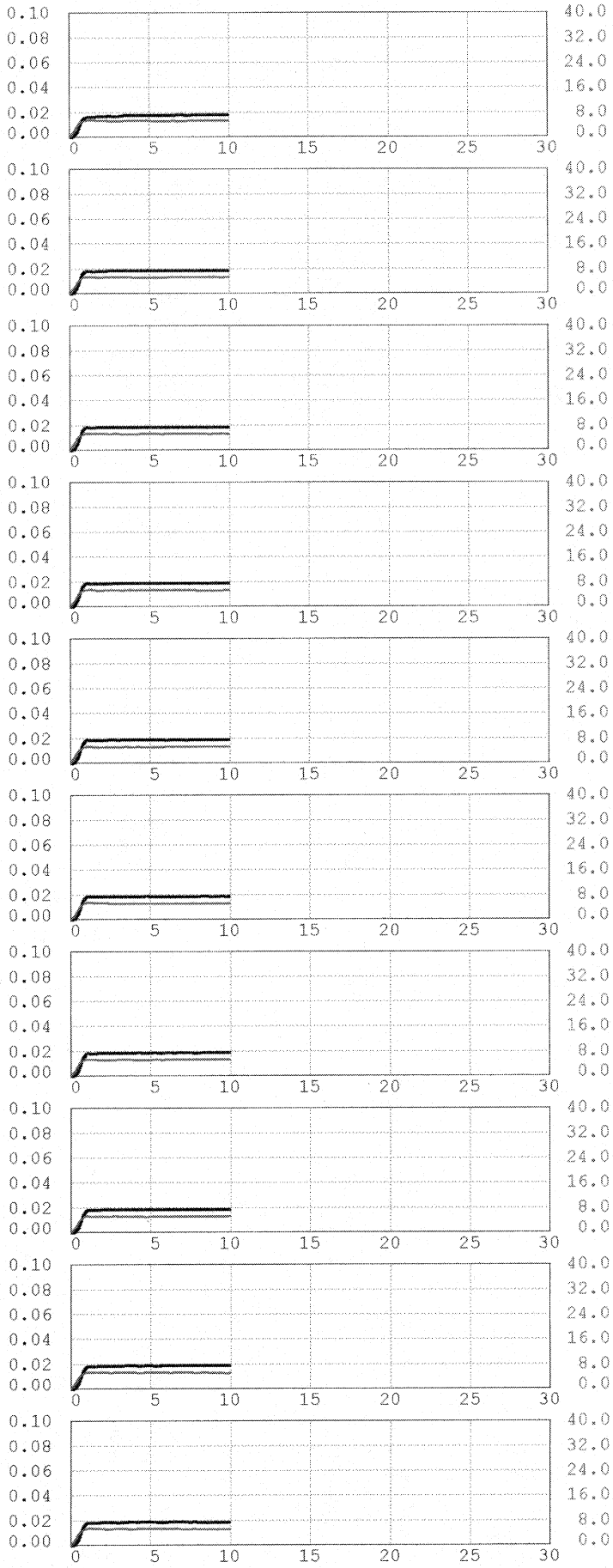
Date: 10/14/2010
Time: 09:37:52

SUPERVISOR NAME: SEH #5

SOLUTION LOT #: 10-34-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	09:38
CALIBRATION CHECK	PASSED	09:38
SIMULATOR VAPOR	0.019	09:39
SIMULATOR VAPOR	0.019	09:40
SIMULATOR VAPOR	0.019	09:41
SIMULATOR VAPOR	0.019	09:42
SIMULATOR VAPOR	0.019	09:43
SIMULATOR VAPOR	0.019	09:44
SIMULATOR VAPOR	0.019	09:45
SIMULATOR VAPOR	0.019	09:46
SIMULATOR VAPOR	0.019	09:46
SIMULATOR VAPOR	0.019	09:47
BLANK TEST	0.000	09:48

Average = 0.019
Std Dev = 0.0000



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

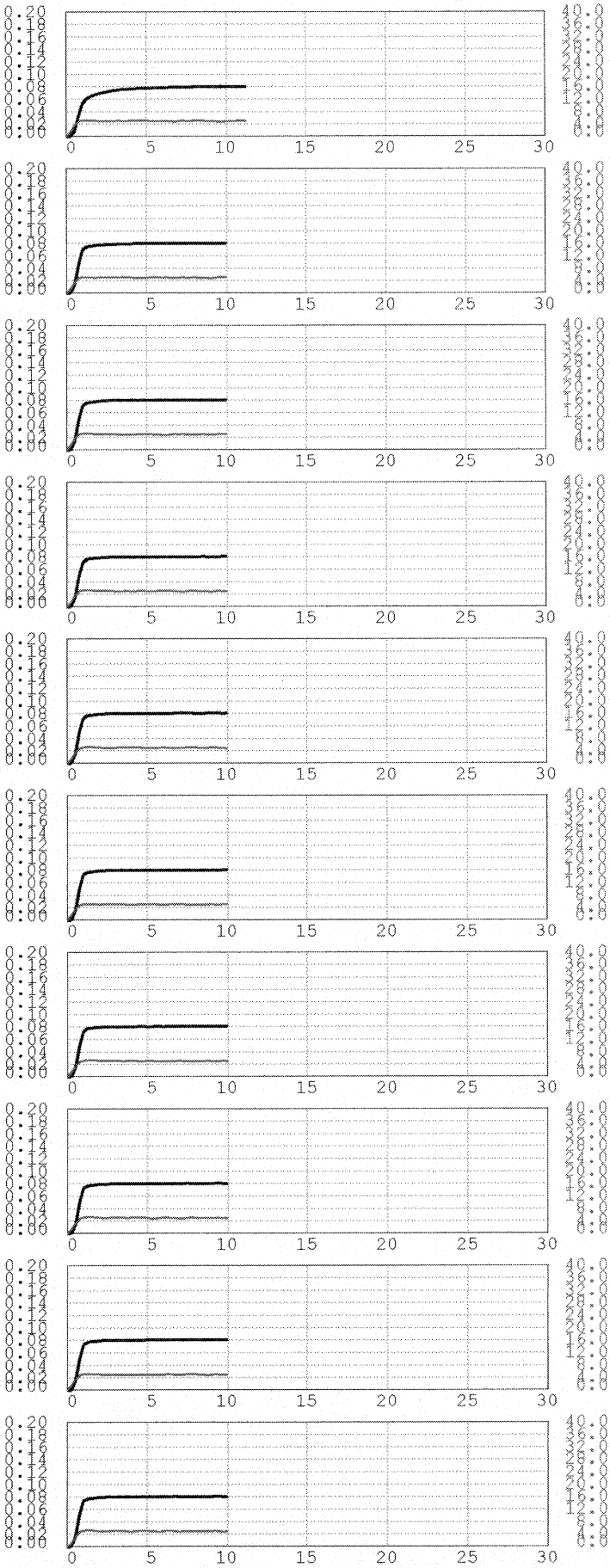
Date: 10/14/2010
Time: 10:00:33

SUPERVISOR NAME: SEH #5

SOLUTION LOT #: 10-37-080
SOLUTION CONCENTRATION: 0.079

BLANK TEST	0.000	10:01
CALIBRATION CHECK	PASSED	10:01
SIMULATOR VAPOR	0.080	10:01
SIMULATOR VAPOR	0.080	10:02
SIMULATOR VAPOR	0.081	10:03
SIMULATOR VAPOR	0.081	10:04
SIMULATOR VAPOR	0.081	10:05
SIMULATOR VAPOR	0.081	10:06
SIMULATOR VAPOR	0.081	10:07
SIMULATOR VAPOR	0.081	10:08
SIMULATOR VAPOR	0.081	10:09
SIMULATOR VAPOR	0.081	10:10
BLANK TEST	0.000	10:11

Average = 0.080
Std Dev = 0.0004



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

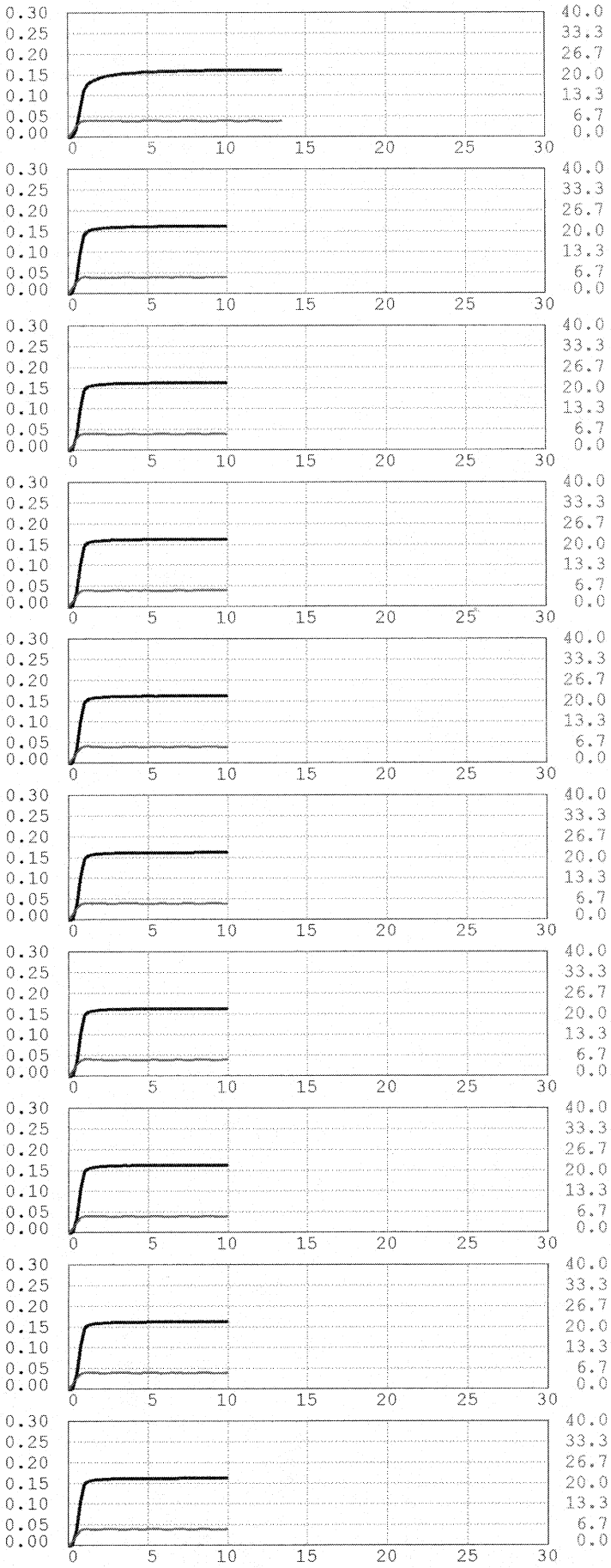
Date: 10/14/2010
Time: 10:15:26

SUPERVISOR NAME: SEH #5

SOLUTION LOT #: 11-06-160
SOLUTION CONCENTRATION: 0.162

BLANK TEST	0.000	10:16
CALIBRATION CHECK	PASSED	10:16
SIMULATOR VAPOR	0.161	10:16
SIMULATOR VAPOR	0.162	10:17
SIMULATOR VAPOR	0.162	10:18
SIMULATOR VAPOR	0.162	10:19
SIMULATOR VAPOR	0.162	10:20
SIMULATOR VAPOR	0.162	10:21
SIMULATOR VAPOR	0.162	10:22
SIMULATOR VAPOR	0.162	10:23
SIMULATOR VAPOR	0.162	10:24
SIMULATOR VAPOR	0.162	10:25
BLANK TEST	0.000	10:26

Average = 0.161
Std Dev = 0.0003



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

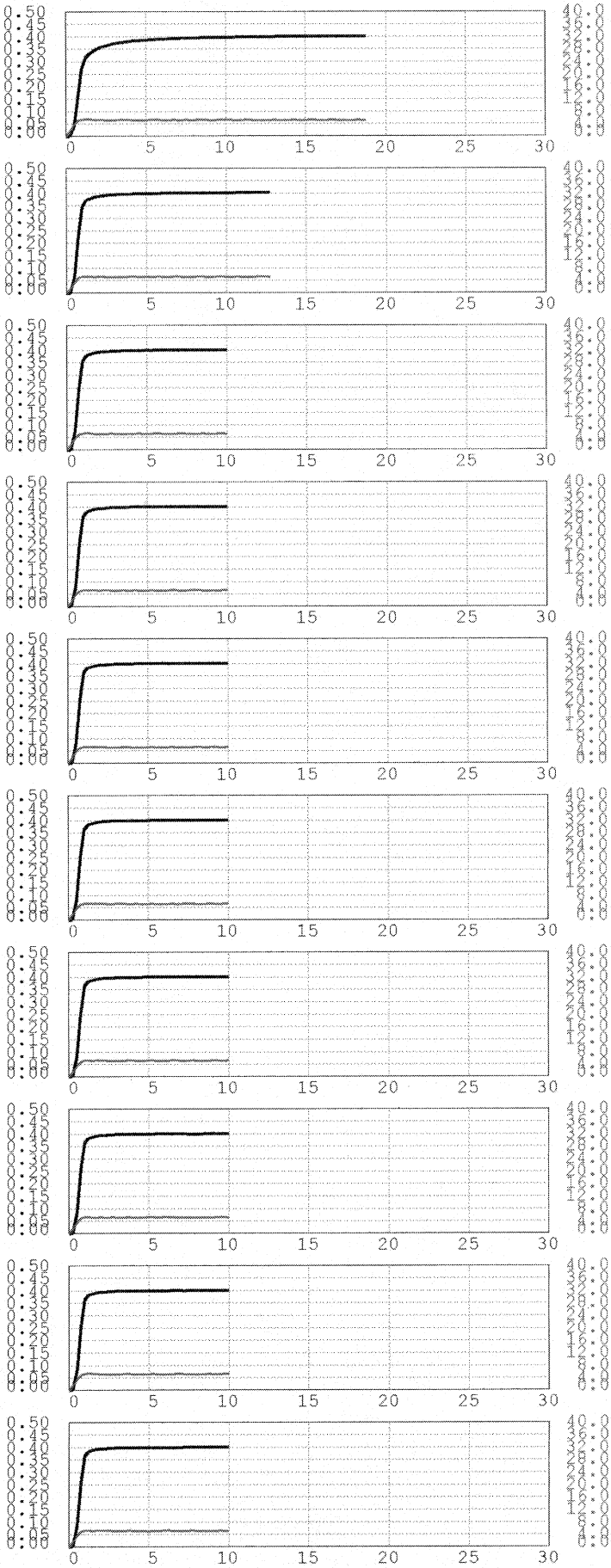
Date: 10/14/2010
Time: 10:28:52

SUPERVISOR NAME: SEH #5

SOLUTION LOT #: 11-07-400
SOLUTION CONCENTRATION: 0.412

BLANK TEST	0.000	10:29
CALIBRATION CHECK	PASSED	10:29
SIMULATOR VAPOR	0.400	10:30
SIMULATOR VAPOR	0.401	10:31
SIMULATOR VAPOR	0.400	10:32
SIMULATOR VAPOR	0.400	10:33
SIMULATOR VAPOR	0.400	10:34
SIMULATOR VAPOR	0.399	10:35
SIMULATOR VAPOR	0.400	10:36
SIMULATOR VAPOR	0.399	10:37
SIMULATOR VAPOR	0.399	10:38
SIMULATOR VAPOR	0.399	10:39
BLANK TEST	0.000	10:40

Average = 0.399
Std Dev = 0.0006



Section 5: Interference

DIAGNOSTIC RESULT

DataMaster DMT: 100162
Location:
Calibration Date: 10/08/2010
Certification Date: 10/08/2010
Installation Date: 10/08/2010
Test Date: 10/11/2010
Time: 09:20

VERMONT
DEPARTMENT OF HEALTH

```
VERSIONS
DMT 1.05
PIC 2.06
Modem 1.06
Questions 1.00
Reports 1.02

TEMPERATURES
Sample Chamber = 48.86°C
Breath Tube    = 48.01°C

SETTINGS
Lamp Voltage   = 2.24 V
Cooler Voltage = 1.76 V
Bias Voltage   = 80.6 V
Chopper Freq   = 542.5 Hz

PUMP INFO
Flow Rate = 6.387 L/M

DETECTOR INFO
PUMP     ON       OFF
MAX(V)   0.0087   0.0112
MIN(V)   0.0071   0.0102

FILTER INFO
Filter 1  0.010  Zero = true
Filter 2  0.260  Zero = true
Filter 3  1.075  Zero = true

CALIBRATION CHECK
Xq = 0.0897  0.10%
```

ACCURACY AND PRECISION TEST

STATE OF VERMONT

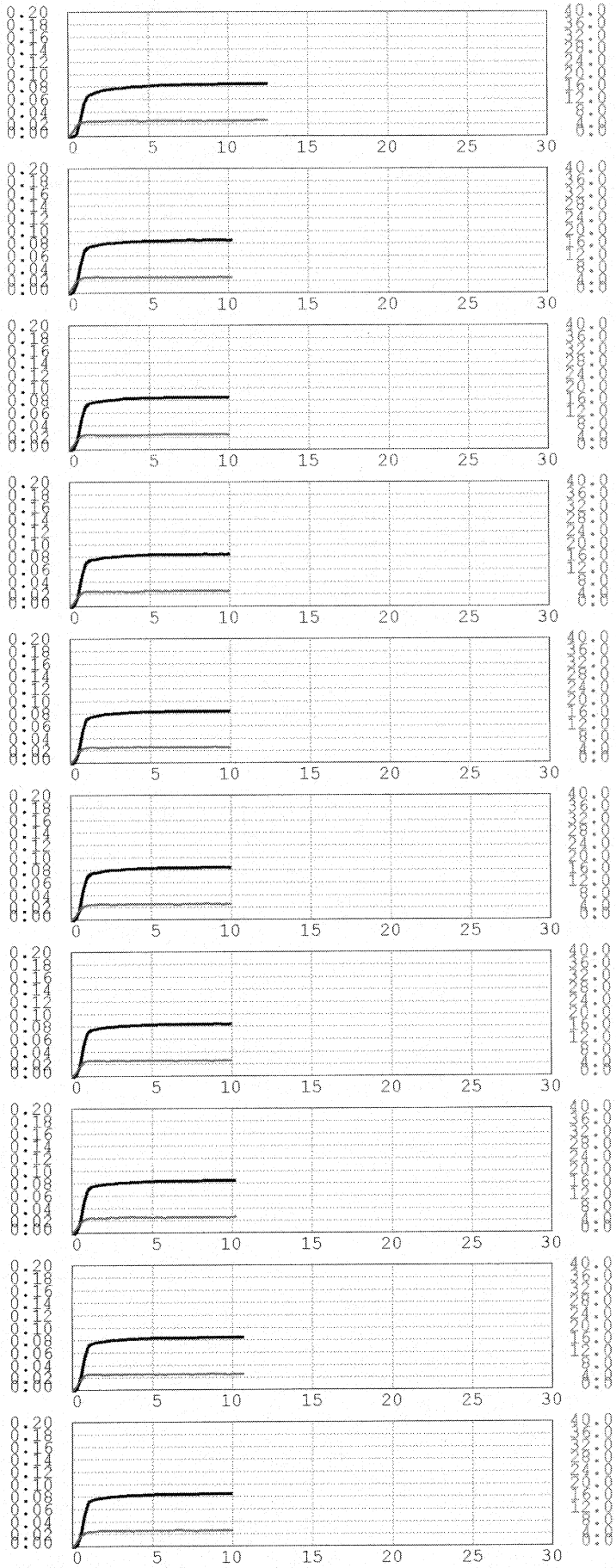
DataMaster DMT: 100162

Date: 10/11/2010
Time: 09:32:21

SUPERVISOR NAME: SEH 01ACETONE IN 08 ETOH

SOLUTION LOT #: 11-11-08A1
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	09:33
CALIBRATION CHECK	PASSED	09:33
SIMULATOR VAPOR	INTERFERENCE	09:33
SIMULATOR VAPOR	INTERFERENCE	09:34
SIMULATOR VAPOR	INTERFERENCE	09:35
SIMULATOR VAPOR	INTERFERENCE	09:36
SIMULATOR VAPOR	INTERFERENCE	09:37
SIMULATOR VAPOR	INTERFERENCE	09:38
SIMULATOR VAPOR	INTERFERENCE	09:39
SIMULATOR VAPOR	INTERFERENCE	09:40
SIMULATOR VAPOR	INTERFERENCE	09:41
SIMULATOR VAPOR	INTERFERENCE	09:42
BLANK TEST	0.000	09:43



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

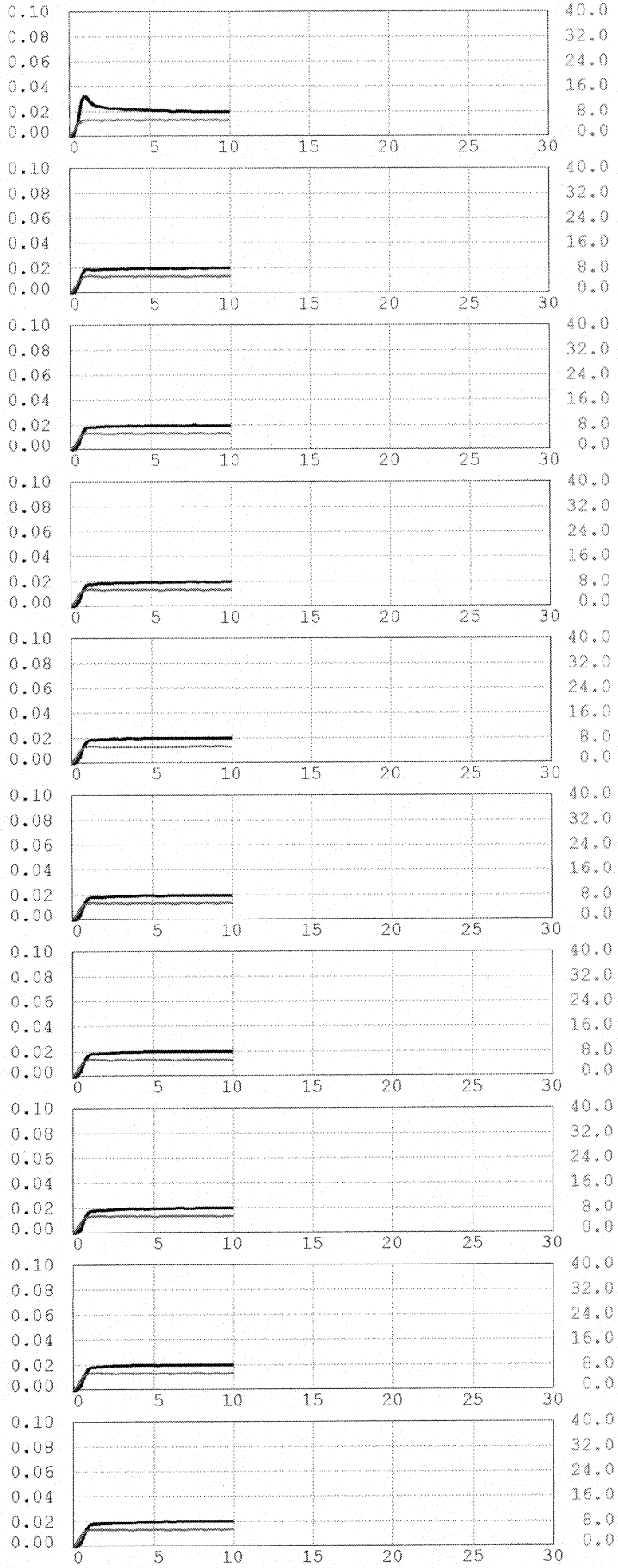
Date: 10/11/2010
Time: 09:45:40

SUPERVISOR NAME: SEH 04MEOH IN H2O

SOLUTION LOT #: 11-08-04M
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	09:46
CALIBRATION CHECK	PASSED	09:46
SIMULATOR VAPOR	0.021	09:47
SIMULATOR VAPOR	INTERFERENCE	09:47
SIMULATOR VAPOR	INTERFERENCE	09:48
SIMULATOR VAPOR	INTERFERENCE	09:49
SIMULATOR VAPOR	INTERFERENCE	09:50
SIMULATOR VAPOR	INTERFERENCE	09:51
SIMULATOR VAPOR	INTERFERENCE	09:52
SIMULATOR VAPOR	INTERFERENCE	09:53
SIMULATOR VAPOR	INTERFERENCE	09:54
SIMULATOR VAPOR	INTERFERENCE	09:55
BLANK TEST	0.000	09:56

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

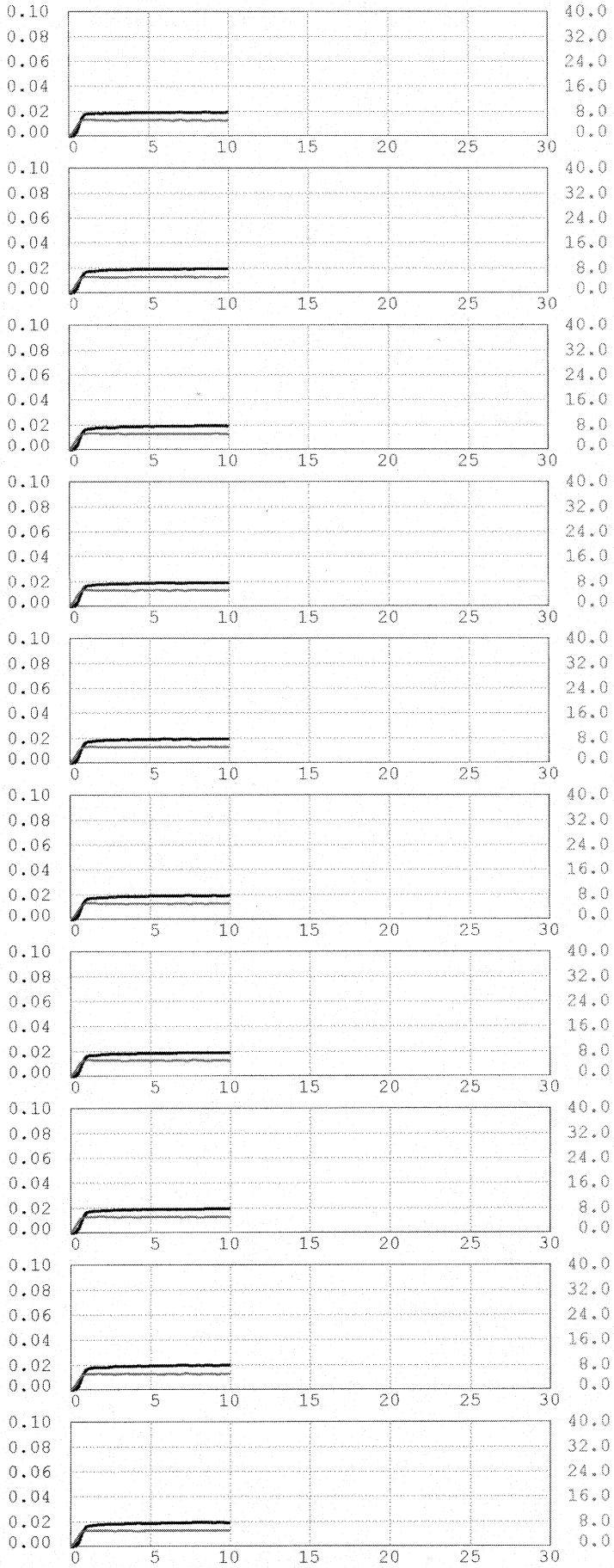
Date: 10/11/2010
Time: 09:58:23

SUPERVISOR NAME: SEH 04IPAINH2O

SOLUTION LOT #: 10-26-04I
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	09:59
CALIBRATION CHECK	PASSED	09:59
SIMULATOR VAPOR	INTERFERENCE	09:59
SIMULATOR VAPOR	INTERFERENCE	10:00
SIMULATOR VAPOR	INTERFERENCE	10:01
SIMULATOR VAPOR	INTERFERENCE	10:02
SIMULATOR VAPOR	INTERFERENCE	10:03
SIMULATOR VAPOR	INTERFERENCE	10:04
SIMULATOR VAPOR	INTERFERENCE	10:05
SIMULATOR VAPOR	INTERFERENCE	10:06
SIMULATOR VAPOR	INTERFERENCE	10:07
SIMULATOR VAPOR	INTERFERENCE	10:08
BLANK TEST	0.000	10:09

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

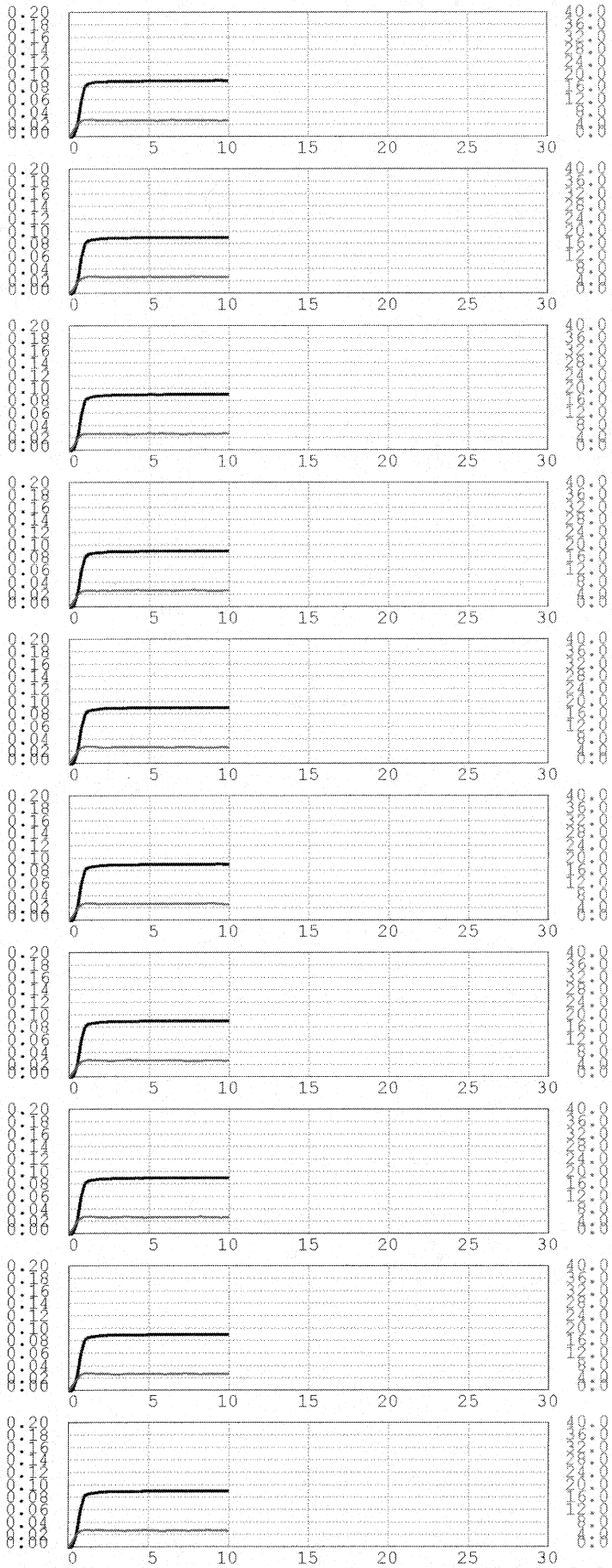
Date: 10/11/2010
Time: 10:54:41

SUPERVISOR NAME: SEH 04IPA 08ETOH

SOLUTION LOT #: 09-30-08I
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	10:55
CALIBRATION CHECK	PASSED	10:55
Xq = 0.0905 (0.78%)		
SIMULATOR VAPOR	INTERFERENCE	10:56
X[1] = 0.0905 (-0.0281) (0.0024)		
SIMULATOR VAPOR	INTERFERENCE	10:57
X[1] = 0.0906 (-0.0291) (0.0019)		
SIMULATOR VAPOR	INTERFERENCE	10:58
X[1] = 0.0903 (-0.0290) (0.0021)		
SIMULATOR VAPOR	INTERFERENCE	10:58
X[1] = 0.0906 (-0.0285) (0.0020)		
SIMULATOR VAPOR	INTERFERENCE	10:59
X[1] = 0.0908 (-0.0283) (0.0018)		
SIMULATOR VAPOR	INTERFERENCE	11:00
X[1] = 0.0907 (-0.0287) (0.0017)		
SIMULATOR VAPOR	INTERFERENCE	11:01
X[1] = 0.0908 (-0.0292) (0.0017)		
SIMULATOR VAPOR	INTERFERENCE	11:02
X[1] = 0.0905 (-0.0295) (0.0021)		
SIMULATOR VAPOR	INTERFERENCE	11:03
X[1] = 0.0904 (-0.0293) (0.0017)		
SIMULATOR VAPOR	INTERFERENCE	11:04
X[1] = 0.0904 (-0.0294) (0.0016)		
BLANK TEST	0.000	11:05

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

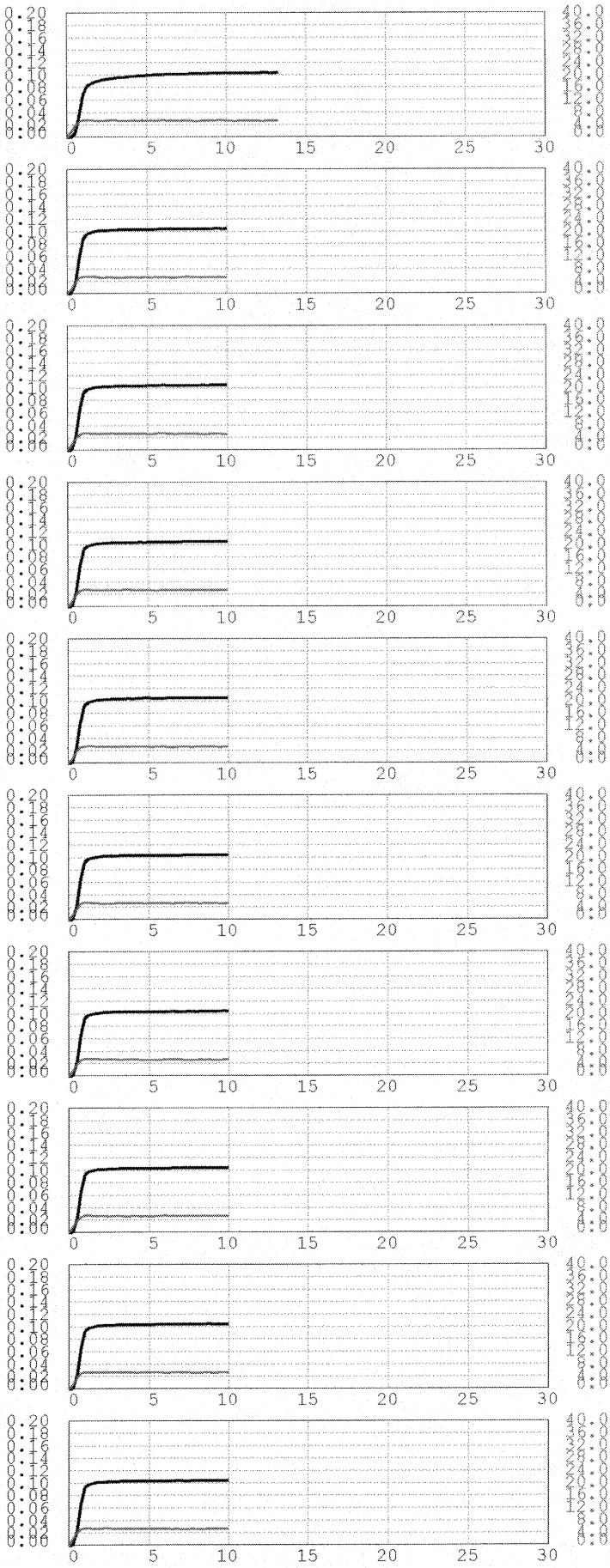
Date: 10/11/2010
Time: 10:40:02

SUPERVISOR NAME: SEH 08ETOH 04 MEOH

SOLUTION LOT #: 10-10-08M4
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	10:40
CALIBRATION CHECK	PASSED	10:41
Xq = 0.0904 (0.68%)		
SIMULATOR VAPOR	INTERFERENCE	10:41
X[1] = 0.1042 (-0.0053) (-0.0059)		
SIMULATOR VAPOR	INTERFERENCE	10:42
X[1] = 0.1046 (-0.0053) (-0.0071)		
SIMULATOR VAPOR	INTERFERENCE	10:43
X[1] = 0.1047 (-0.0055) (-0.0070)		
SIMULATOR VAPOR	INTERFERENCE	10:44
X[1] = 0.1048 (-0.0054) (-0.0067)		
SIMULATOR VAPOR	INTERFERENCE	10:45
X[1] = 0.1048 (-0.0055) (-0.0071)		
SIMULATOR VAPOR	INTERFERENCE	10:46
X[1] = 0.1044 (-0.0060) (-0.0076)		
SIMULATOR VAPOR	INTERFERENCE	10:47
X[1] = 0.1043 (-0.0058) (-0.0071)		
SIMULATOR VAPOR	INTERFERENCE	10:48
X[1] = 0.1043 (-0.0056) (-0.0070)		
SIMULATOR VAPOR	INTERFERENCE	10:49
X[1] = 0.1044 (-0.0054) (-0.0073)		
SIMULATOR VAPOR	INTERFERENCE	10:50
X[1] = 0.1043 (-0.0055) (-0.0075)		
BLANK TEST	0.000	10:51

Average out of range!



ACCURACY AND PRECISION TEST

STATE OF VERMONT

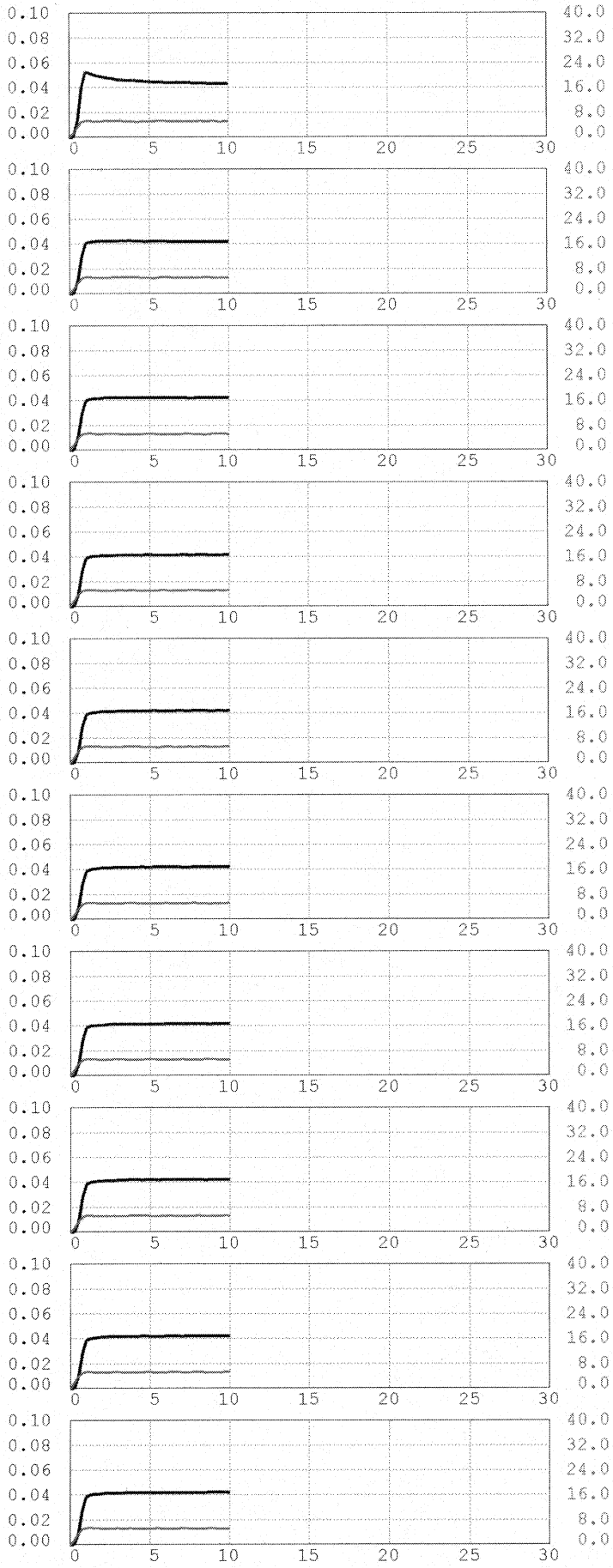
DataMaster DMT: 100162

Date: 10/11/2010
Time: 11:10:28

SUPERVISOR NAME: SEH 04ETOH B01 ACETONE

SOLUTION LOT #: 10-35-04A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	11:11
CALIBRATION CHECK	PASSED	11:11
SIMULATOR VAPOR	INTERFERENCE	11:11
SIMULATOR VAPOR	INTERFERENCE	11:12
SIMULATOR VAPOR	INTERFERENCE	11:13
SIMULATOR VAPOR	INTERFERENCE	11:14
SIMULATOR VAPOR	INTERFERENCE	11:15
SIMULATOR VAPOR	INTERFERENCE	11:16
SIMULATOR VAPOR	INTERFERENCE	11:17
SIMULATOR VAPOR	INTERFERENCE	11:18
SIMULATOR VAPOR	INTERFERENCE	11:19
SIMULATOR VAPOR	INTERFERENCE	11:20
BLANK TEST	0.000	11:21



ACCURACY AND PRECISION TEST

STATE OF VERMONT

DataMaster DMT: 100162

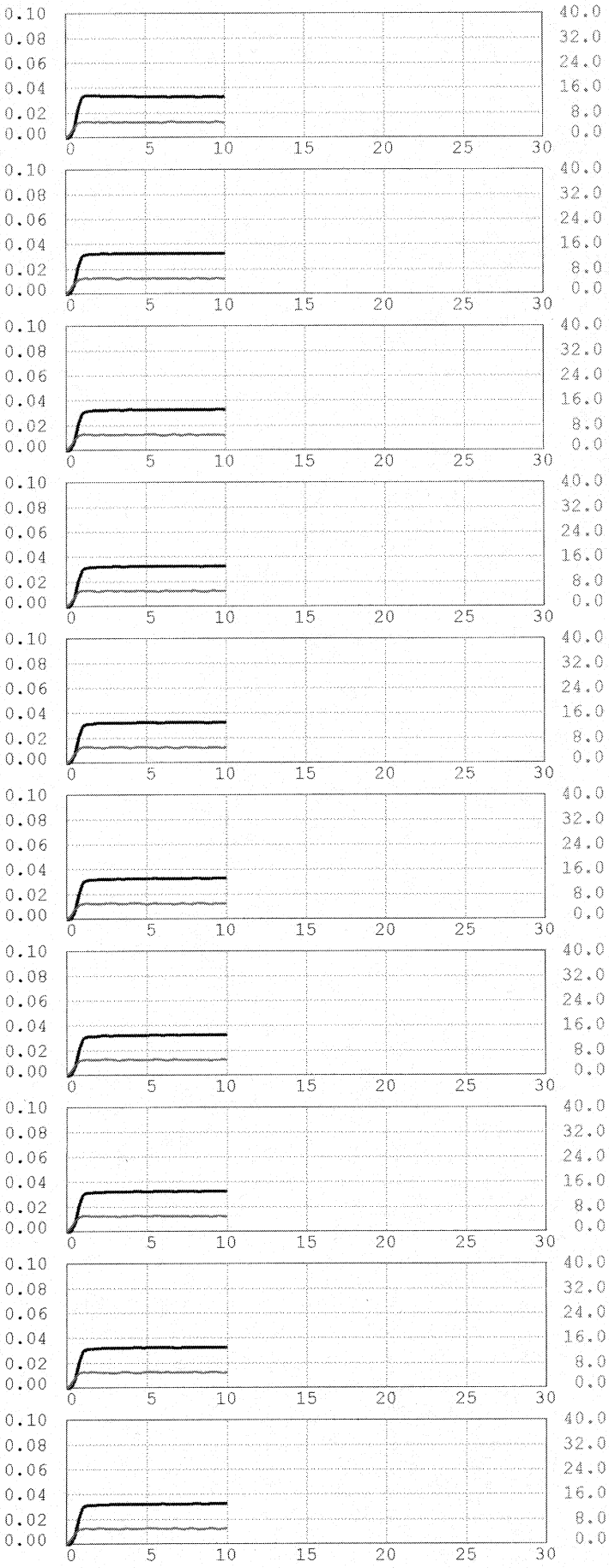
Date: 10/11/2010
Time: 11:22:51

SUPERVISOR NAME: SEH 04ETOH 02 ACETONE

SOLUTION LOT #: 10-35-04A2
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	11:23
CALIBRATION CHECK	PASSED	11:23
SIMULATOR VAPOR	INTERFERENCE	11:24
SIMULATOR VAPOR	INTERFERENCE	11:25
SIMULATOR VAPOR	INTERFERENCE	11:26
SIMULATOR VAPOR	INTERFERENCE	11:27
SIMULATOR VAPOR	INTERFERENCE	11:28
SIMULATOR VAPOR	INTERFERENCE	11:29
SIMULATOR VAPOR	INTERFERENCE	11:30
SIMULATOR VAPOR	INTERFERENCE	11:31
SIMULATOR VAPOR	INTERFERENCE	11:32
SIMULATOR VAPOR	INTERFERENCE	11:32
BLANK TEST	0.000	11:33

Average out of range!



Section 6: Low Level Accuracy

This Instrument not tested for this specification

Section 7: Breath Volume

This Instrument not tested for this specification

Section 8: Software Testing

This Instrument not tested for this specification

Section 9: Error Reports

NONE FOR THIS UNIT

Section 10: Live Subject Tests

This Instrument not tested for this specification

Section 11: Communication Notes

100162

October 2010
Third Round Testing Protocol for DMT Instruments

Power Up Procedure:

a) Open unit and inspect connections. Ensure all tubing is secure. Check that all cables are properly seated and tied down or strapped together as necessary. Check that all screws are in place and snug; this will require the removal of the side pieces to allow the technician access. Correct as needed.

b) Manually turn the filter wheel. The filter wheel should turn smoothly and should not rub or wobble. Correct as needed.

c) Power on the instrument. Allow approximately one hour for it to come to temperature.

d) Access the SETUP menu. On the MISC tab, type "State of Vermont" in the NAME field. In the EXPLORE box, highlight STYLUS and press the OK button to activate the stylus settings. Recalibrate the stylus. Once complete, exit the SETUP menu by pressing the OK button to save the settings. If you exit the SETUP menu using the CANCEL button, none of the changes will be saved.

SH

e) Enter the TECH screen. Scroll through all of the filter settings to ensure the filter wheel is activating properly.

f) Optimize the detector voltage
-Adjust the cooler voltage setting to 1.70Vdc +/-0.10.
10/1/10 -Manually manipulate the detector position to get the detector voltage as low as possible.
-Adjust the Lamp voltage setting so that the detector voltage displayed is approximately +0.000 +/- 0.100.
-Note the initial noise of the detector voltage once unit has had a minute to equilibrate. Noise tolerance at NPAS is +/-0.003 on a detector.
-Save the voltage settings
-Per VDHL protocol (P-Alc-116 Power-Up SOP), the detector voltage must read 0.000V with a tolerance of +/- 0.100V. Correct as needed.

g) While still in the TECH screen, press SET in the RF Sensitivity box to automatically set the RF sensitivity level. Press SAVE to save the settings. Confirm the setting by keying a radio near the instrument. Correct as needed.

h) Using the large syringe, push 1.5L of air into the breath tube. Monitor the volume of air displayed on the TECH screen. The instrument should read 1.5L +/- 0.2L. If the instrument is out of range, adjust the distance between the "T" fittings on the breath exhaust tubing. Retest until the volume reads appropriately.

i) Once all the TECH settings are correct, re-save every setting. Exit the TECH screen.

j) Close up the instrument using locking screws on the top four holes. Attach the stylus to the DMT using a locking screw in the center right screw hole nearest the simulator tower. Attach the keyboard to the top of the instrument using sticky-back velcro. Wrap a small piece of velcro around the top of the stylus and affix the other side to the front of the instrument so the stylus can rest on the front of the unit.

10/8/10 SH

k) Calibrate the instrument following the Calibration Protocol using Calibration Solution (0.100 EtOH). During Calibration and Certification, it may be necessary to turn off the simulator temperature monitoring if using Guth 2100 Simulators as these do not have BNC connectors for temperature monitoring. To do this, open the SETUP menu. In the Simulator box, select NONE as the type of

DRAFT

10/8/10
SH

simulator. Press OK to exit. Document the room temperature and humidity level at the time of calibration in the communication notebook.

l) Certify the instrument following the Certification Protocol.

m) Preliminary interference testing. Run the following concentrations as an Accuracy and Precision Test with n=10. The instrument must report Interference at least 80% of the time.

0.01% Acetone in 0.08% EtOH SH

0.04% MeOH in Water SH 10/11/10

0.04% Isopropanol in Water SH

The instrument is now ready for performance testing. If any of the above steps fail or there is **any** problem with the instrument, the DataMaster Team should be consulted as to the action required. It may be necessary to return an instrument to the manufacture for refurbishment prior to use by VDHL. All adjustments and repairs to an instrument should be documented in the instrument's testing notebook located in the testing binder. All reports generated during the Power Up Procedure should be filed in the power up section of that instrument's testing binder. If the instrument has passed, it should now be Installed to VDHL.

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100162

Performance Testing

a) Linearity Test: Four concentrations of EtOH solutions will be used, 0.020, 0.080, 0.160, and 0.400. Each solution will be run using the Accuracy and Precision test (n=10). All four concentrations will be run consecutively and will count as one linearity test. Five linearity tests will be run on each instrument. Linearity tests should not be completed back to back. Testing should allow for inter- and intra- day performance.

1. 10/12 SH
2. 10/12 SH
3. 10/13 SH
4. 10/14 SH
5. 10/14 SH

b) Interference Test: The following concentrations will be tested using the Accuracy and Precision test (n=10). The instrument should report Interference at least 80% of the time.

0.01% Acetone in 0.04% EtOH

0.02% Acetone in 0.04% EtOH

0.04% MeOH in 0.08% EtOH

0.04% Isopropanol in 0.08% EtOH

SH 10/11/10

DRAFT