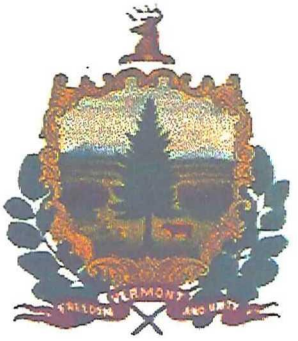
SECTION 3

LINEARITY TESTS

DIAGNOSTIC RESULT



DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date: 09/15/2011
Installation Date:
Test Date: 09/15/2011
Test Time: 14:59:47

```
VERSIONS
DMT: 1.00
PIC: 2.06
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 48.8°C
Breath Tube    = 48.1°C
Digital Sim    = 33.9°C

SETTINGS
Lamp Voltage   = 1.70 V
Cooler Voltage = 1.72 V
Bias Voltage   = 80 V
Chopper Freq   = 540 Hz

PUMP INFO
Flow Rate = 5.261 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)   -0.0049    -0.0008
MIN(V)   -0.0065    -0.0024

FILTER INFO
Filter 1  -0.002  Zero = true
Filter 2   0.350  Zero = true
Filter 3   0.986  Zero = true

CALIBRATION CHECK
Xq  = 0.079  1.44%
```

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/15/2011
Time: 15:02:04

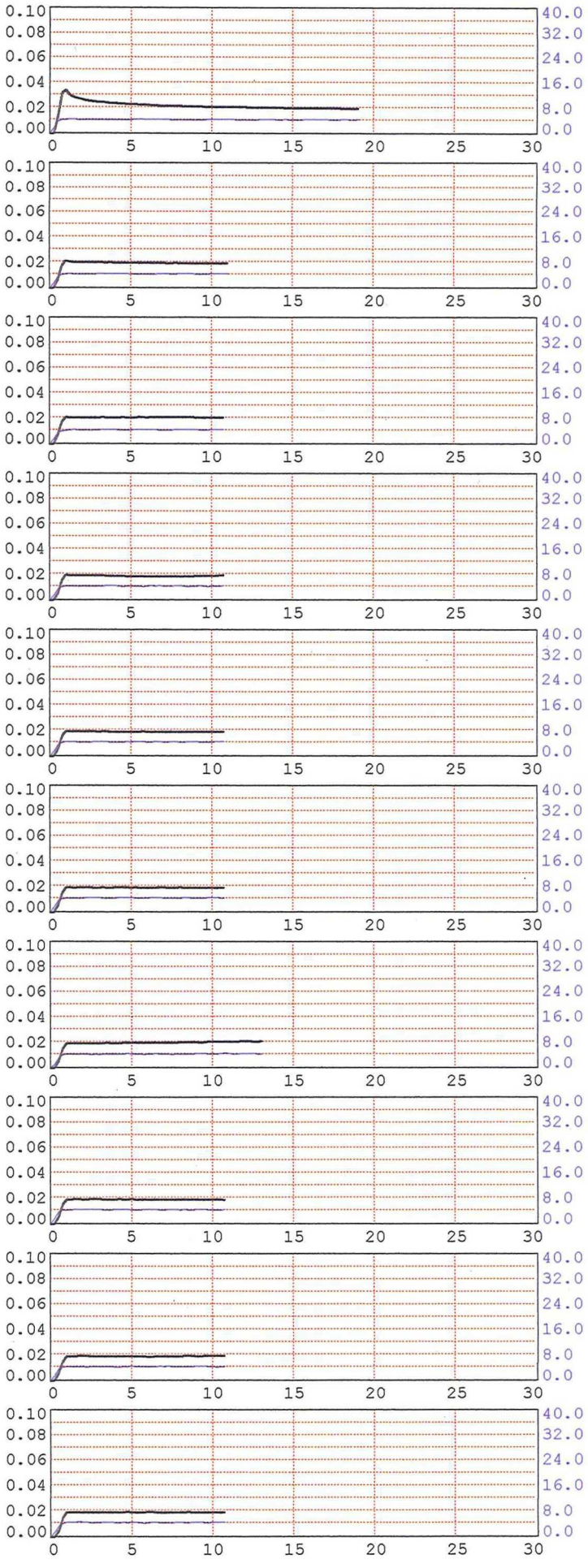
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	15:02
CALIBRATION CHECK	PASSED	15:03
SIMULATOR VAPOR 33.8°C	0.021	15:03
SIMULATOR VAPOR 33.8°C	0.020	15:04
SIMULATOR VAPOR 33.9°C	0.021	15:05
SIMULATOR VAPOR 33.9°C	0.021	15:06
SIMULATOR VAPOR 33.9°C	0.020	15:07
SIMULATOR VAPOR 33.8°C	0.020	15:08
SIMULATOR VAPOR 33.8°C	0.021	15:09
SIMULATOR VAPOR 33.9°C	0.019	15:10
SIMULATOR VAPOR 33.9°C	0.021	15:11
SIMULATOR VAPOR 33.8°C	0.020	15:12
BLANK TEST	0.000	15:13

Average = 0.020
Std Dev = 0.000

LI 09/15/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/15/2011
Time: 15:19:18

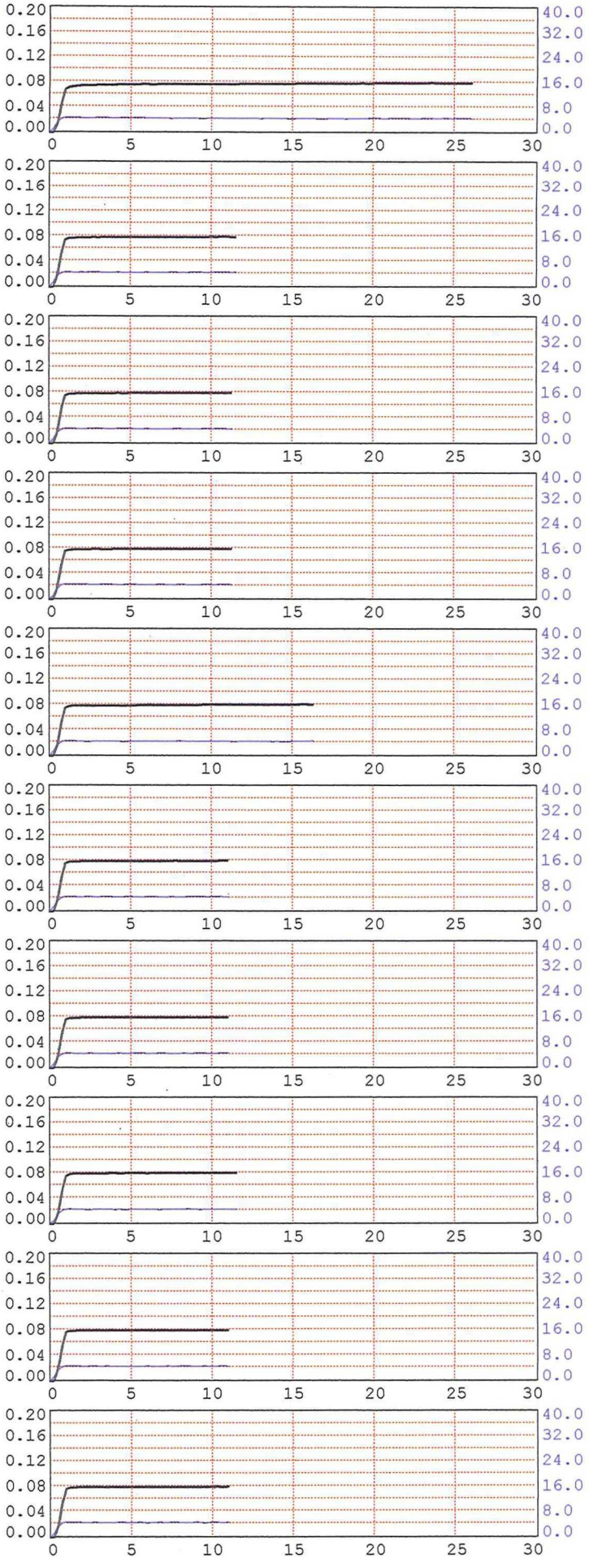
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	15:20
CALIBRATION CHECK	PASSED	15:20
SIMULATOR VAPOR 33.8°C	0.079	15:20
SIMULATOR VAPOR 33.8°C	0.079	15:21
SIMULATOR VAPOR 33.8°C	0.080	15:22
SIMULATOR VAPOR 33.8°C	0.080	15:23
SIMULATOR VAPOR 33.8°C	0.081	15:25
SIMULATOR VAPOR 33.9°C	0.080	15:26
SIMULATOR VAPOR 33.8°C	0.079	15:27
SIMULATOR VAPOR 33.8°C	0.081	15:28
SIMULATOR VAPOR 33.9°C	0.079	15:29
SIMULATOR VAPOR 33.9°C	0.080	15:30
BLANK TEST	0.000	15:31

Average = 0.079
Std Dev = 0.000

LI 09/15/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/15/2011
Time: 15:33:57

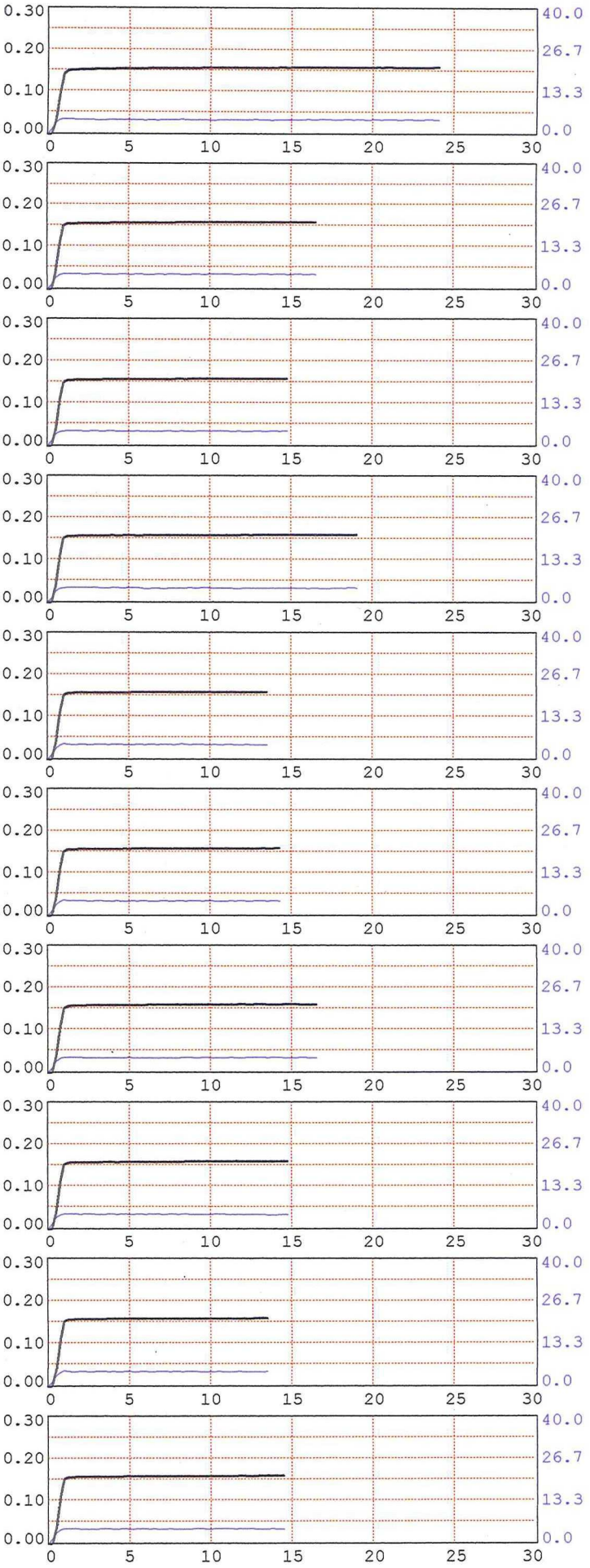
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	15:34
CALIBRATION CHECK	PASSED	15:34
SIMULATOR VAPOR 33.9°C	0.158	15:35
SIMULATOR VAPOR 33.8°C	0.158	15:36
SIMULATOR VAPOR 33.7°C	0.159	15:37
SIMULATOR VAPOR 33.8°C	0.160	15:38
SIMULATOR VAPOR 33.8°C	0.159	15:39
SIMULATOR VAPOR 33.8°C	0.159	15:41
SIMULATOR VAPOR 33.8°C	0.160	15:42
SIMULATOR VAPOR 33.8°C	0.160	15:43
SIMULATOR VAPOR 33.9°C	0.159	15:44
SIMULATOR VAPOR 33.8°C	0.159	15:45
BLANK TEST	0.000	15:46

Average = 0.159
Std Dev = 0.000

LI 09/15/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/15/2011
Time: 16:00:20

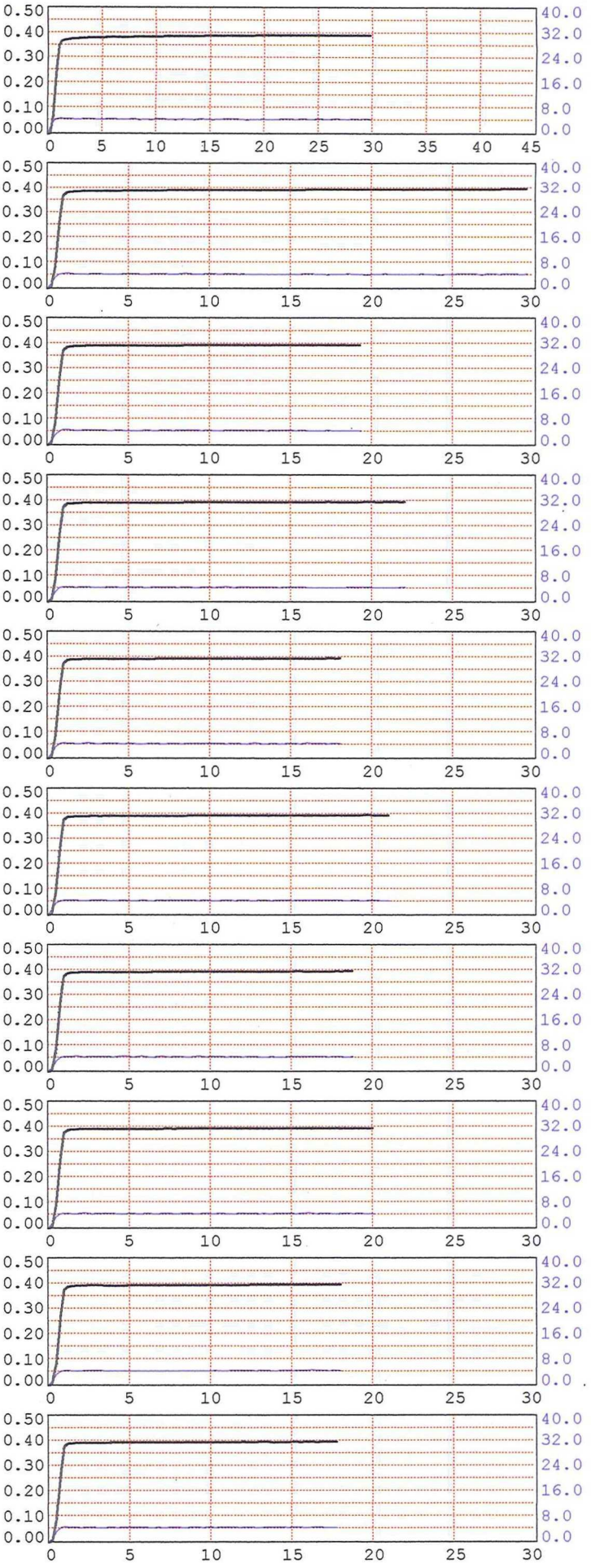
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	16:01
CALIBRATION CHECK	PASSED	16:01
SIMULATOR VAPOR 33.8°C	0.390	16:01
SIMULATOR VAPOR 33.8°C	0.393	16:03
SIMULATOR VAPOR 33.9°C	0.393	16:04
SIMULATOR VAPOR 33.8°C	0.393	16:05
SIMULATOR VAPOR 33.9°C	0.393	16:06
SIMULATOR VAPOR 33.9°C	0.393	16:08
SIMULATOR VAPOR 33.9°C	0.393	16:09
SIMULATOR VAPOR 33.9°C	0.393	16:10
SIMULATOR VAPOR 33.8°C	0.393	16:11
SIMULATOR VAPOR 33.8°C	0.393	16:12
BLANK TEST	0.000	16:13

Average = 0.392
Std Dev = 0.000

LI 09/15/11 SK



DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date: 09/15/2011
Installation Date:
Test Date: 09/16/2011
Test Time: 07:03:17

VERSIONS
DMT: 1.00
PIC: 2.06
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 47.8°C
Digital Sim = 33.9°C

SETTINGS
Lamp Voltage = 1.70 V
Cooler Voltage = 1.72 V
Bias Voltage = 80 V
Chopper Freq = 541 Hz

PUMP INFO
Flow Rate = 5.427 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	-0.0189	-0.0154
MIN(V)	-0.0209	-0.0169

FILTER INFO
Filter 1 -0.018 Zero = true
Filter 2 0.336 Zero = true
Filter 3 0.962 Zero = true

CALIBRATION CHECK
Xq = 0.080 2.55%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 07:06:07

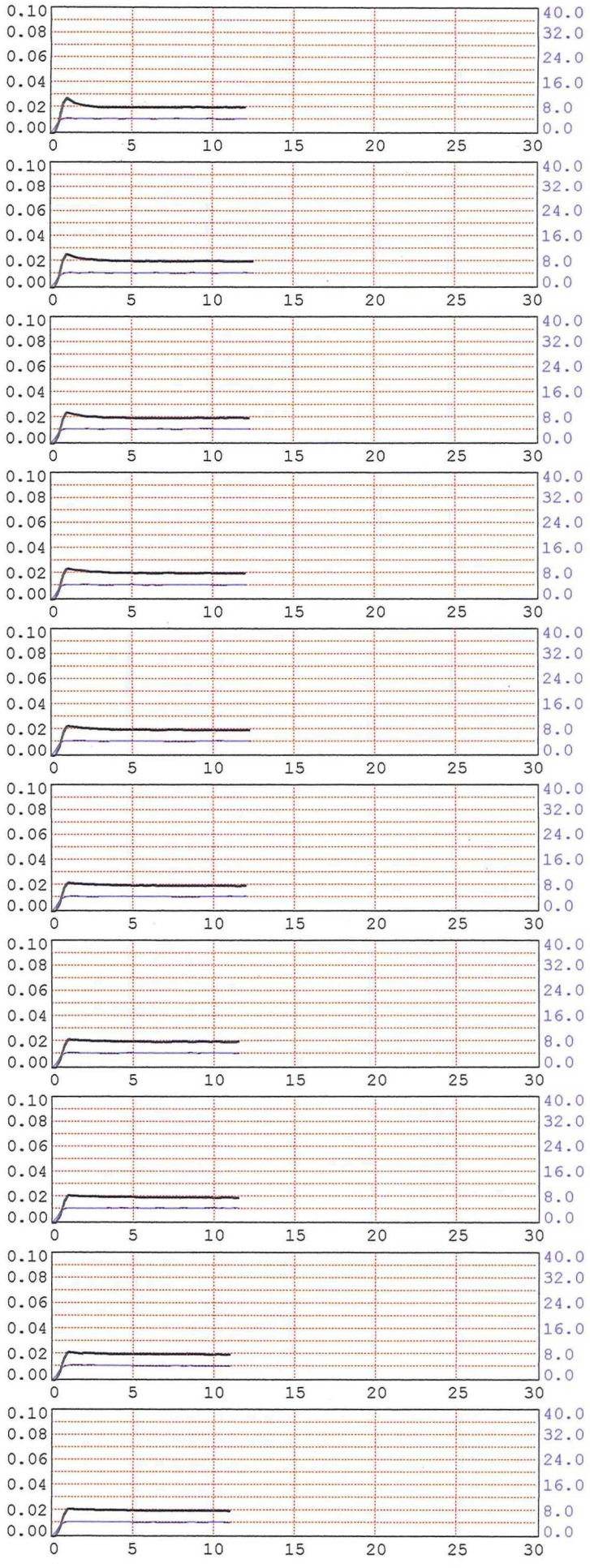
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	07:07
CALIBRATION CHECK	PASSED	07:07
SIMULATOR VAPOR 33.8°C	0.022	07:07
SIMULATOR VAPOR 33.9°C	0.022	07:08
SIMULATOR VAPOR 33.8°C	0.021	07:09
SIMULATOR VAPOR 33.9°C	0.021	07:10
SIMULATOR VAPOR 33.9°C	0.021	07:11
SIMULATOR VAPOR 33.9°C	0.021	07:12
SIMULATOR VAPOR 33.8°C	0.021	07:13
SIMULATOR VAPOR 33.8°C	0.020	07:14
SIMULATOR VAPOR 33.8°C	0.021	07:15
SIMULATOR VAPOR 33.9°C	0.021	07:16
BLANK TEST	0.000	07:17

Average = 0.021
Std Dev = 0.000

LJ 09/16/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 07:20:23

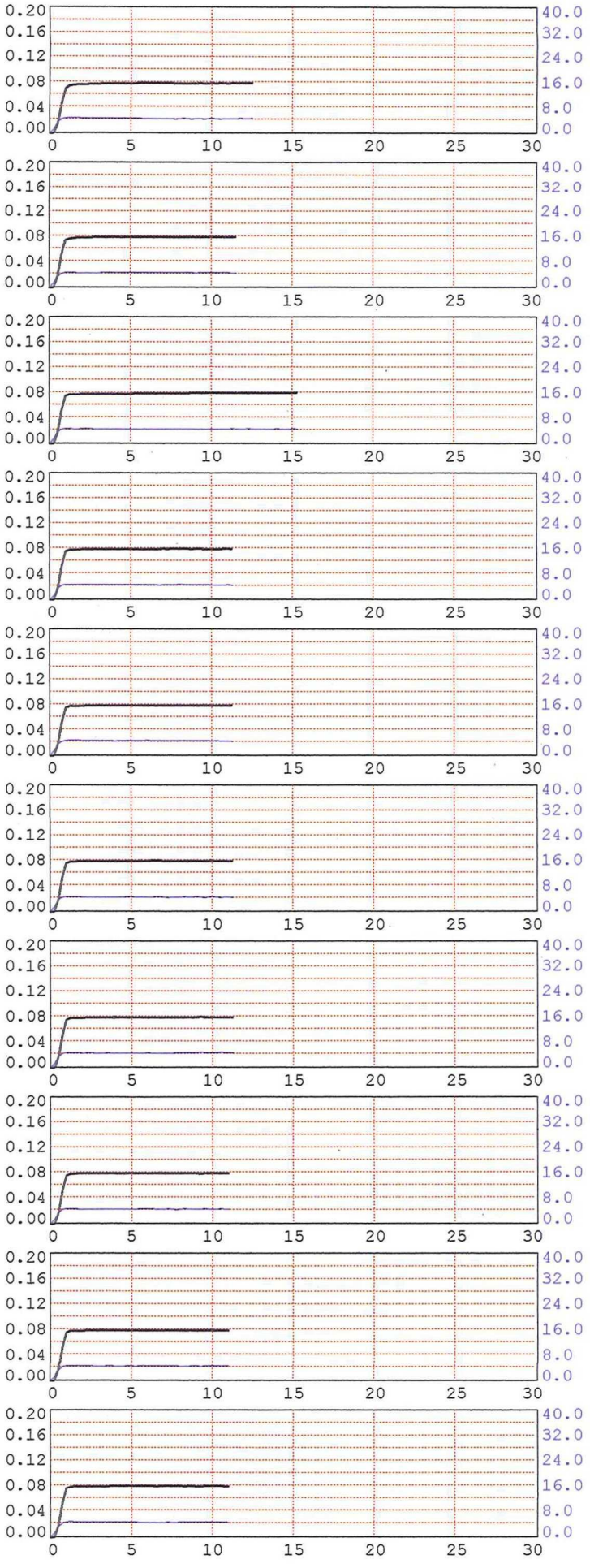
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	07:21
CALIBRATION CHECK	PASSED	07:21
SIMULATOR VAPOR 33.8°C	0.080	07:21
SIMULATOR VAPOR 33.8°C	0.079	07:22
SIMULATOR VAPOR 33.9°C	0.081	07:23
SIMULATOR VAPOR 33.8°C	0.080	07:24
SIMULATOR VAPOR 33.9°C	0.079	07:25
SIMULATOR VAPOR 33.8°C	0.080	07:26
SIMULATOR VAPOR 33.9°C	0.079	07:28
SIMULATOR VAPOR 33.9°C	0.080	07:29
SIMULATOR VAPOR 33.9°C	0.079	07:30
SIMULATOR VAPOR 33.9°C	0.080	07:31
BLANK TEST	0.000	07:31

Average = 0.079
Std Dev = 0.000

LJ 09/16/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 07:39:26

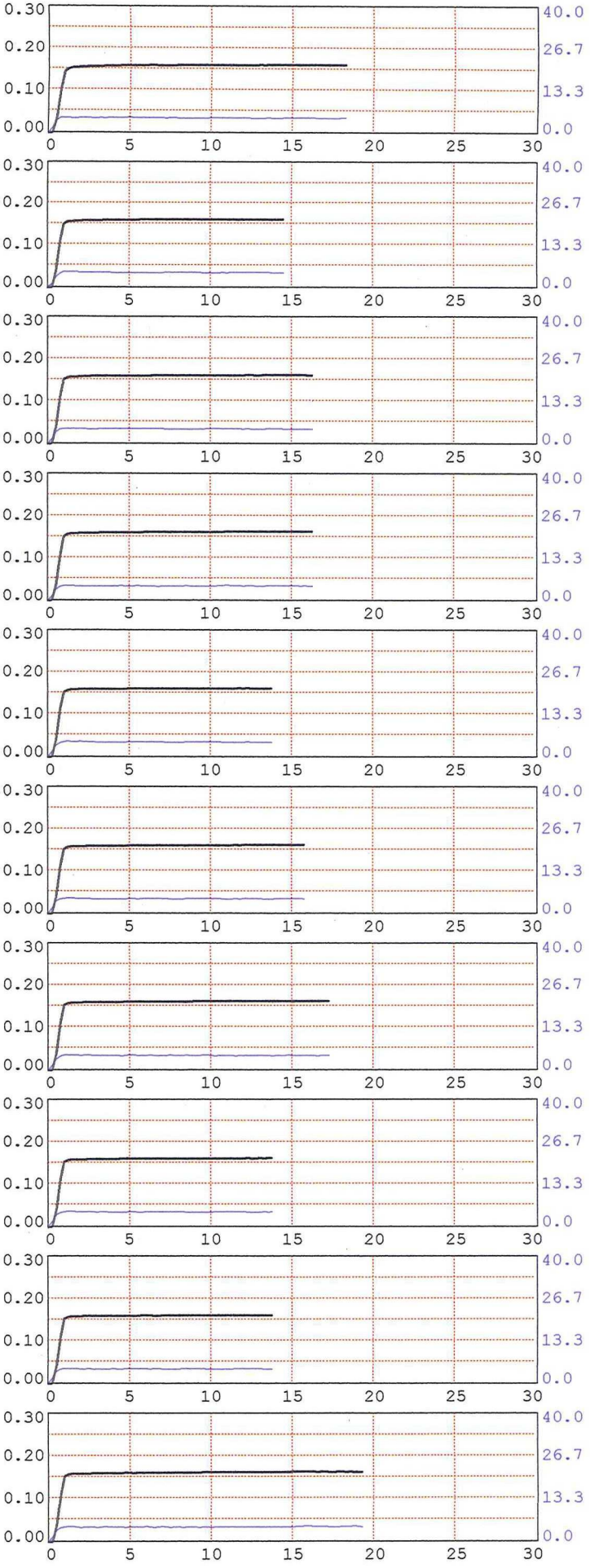
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	07:40
CALIBRATION CHECK	PASSED	07:40
SIMULATOR VAPOR 33.8°C	0.160	07:40
SIMULATOR VAPOR 33.8°C	0.161	07:41
SIMULATOR VAPOR 33.8°C	0.161	07:43
SIMULATOR VAPOR 33.8°C	0.162	07:44
SIMULATOR VAPOR 33.9°C	0.161	07:45
SIMULATOR VAPOR 33.8°C	0.161	07:46
SIMULATOR VAPOR 33.9°C	0.163	07:47
SIMULATOR VAPOR 33.7°C	0.161	07:48
SIMULATOR VAPOR 33.8°C	0.161	07:49
SIMULATOR VAPOR 33.8°C	0.162	07:50
BLANK TEST	0.000	07:51

Average = 0.161
Std Dev = 0.000

LJ 09/16/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 07:54:34

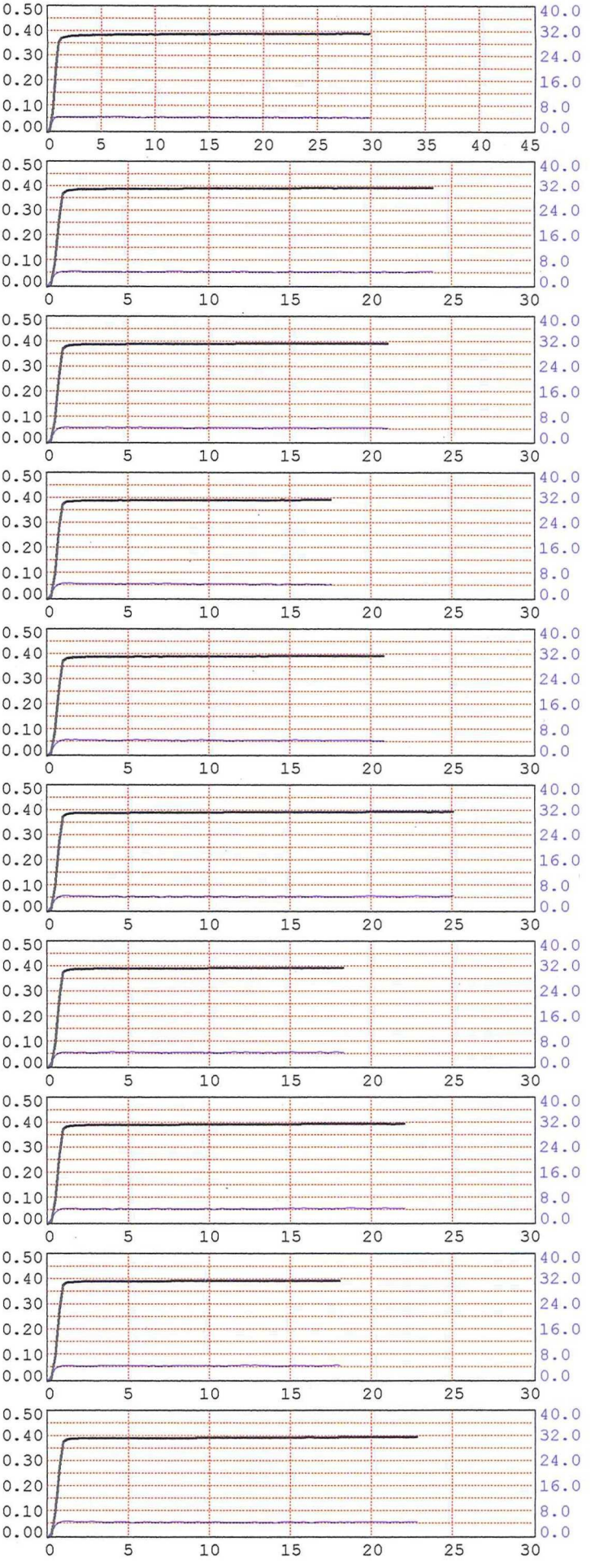
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	07:55
CALIBRATION CHECK	PASSED	07:55
SIMULATOR VAPOR 33.9°C	0.391	07:56
SIMULATOR VAPOR 33.8°C	0.392	07:57
SIMULATOR VAPOR 33.8°C	0.392	07:58
SIMULATOR VAPOR 33.9°C	0.392	07:59
SIMULATOR VAPOR 33.8°C	0.391	08:00
SIMULATOR VAPOR 33.8°C	0.392	08:02
SIMULATOR VAPOR 33.9°C	0.391	08:03
SIMULATOR VAPOR 33.8°C	0.393	08:04
SIMULATOR VAPOR 33.8°C	0.393	08:05
SIMULATOR VAPOR 33.9°C	0.393	08:07
BLANK TEST	0.000	08:07

Average = 0.392
Std Dev = 0.000

L2 09/16/11



DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date: 09/15/2011
Installation Date:
Test Date: 09/16/2011
Test Time: 08:44:29

```
VERSIONS
DMT: 1.00
PIC: 2.06
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 48.9°C
Breath Tube    = 48.1°C
Digital Sim    = 33.8°C

SETTINGS
Lamp Voltage   = 1.70 V
Cooler Voltage = 1.71 V
Bias Voltage   = 80 V
Chopper Freq   = 543 Hz

PUMP INFO
Flow Rate = 5.523 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)    0.0150     0.0175
MIN(V)    0.0134     0.0157

FILTER INFO
Filter 1   0.016  Zero = true
Filter 2   0.366  Zero = true
Filter 3   1.019  Zero = true

CALIBRATION CHECK
Xq  = 0.079  1.00%
```

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 08:31:25

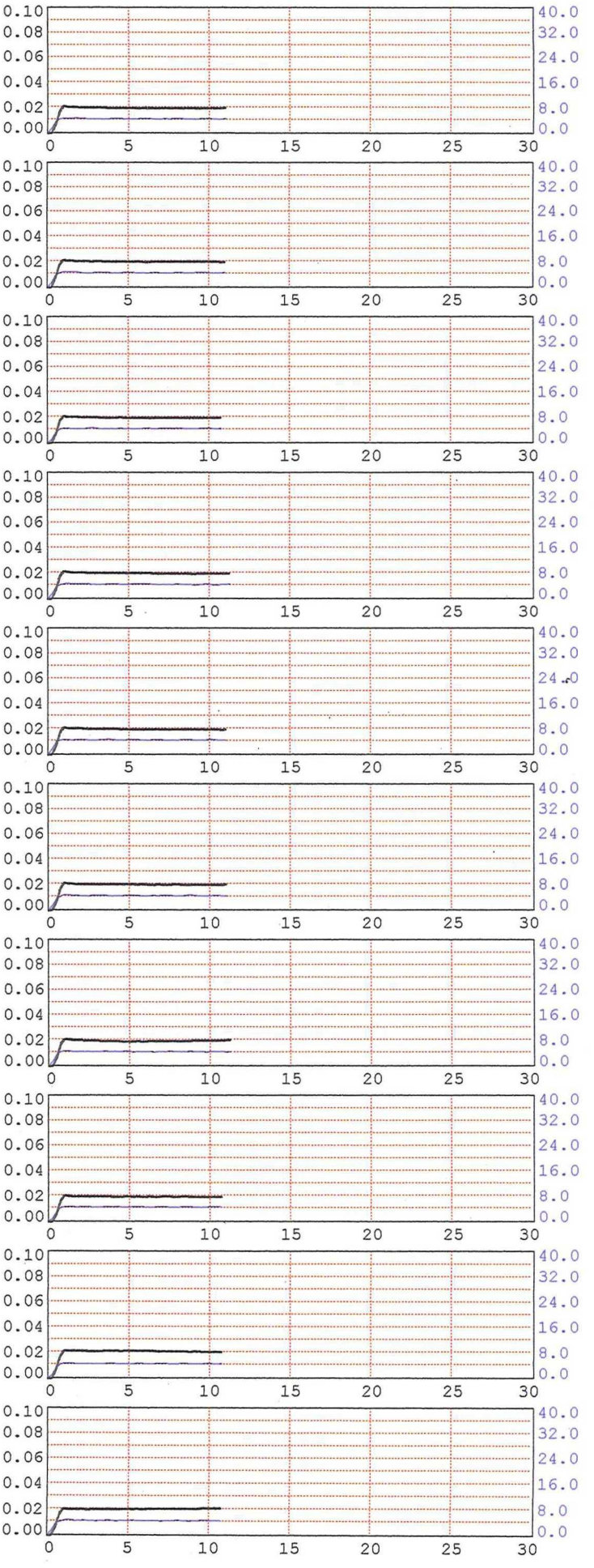
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	08:32
CALIBRATION CHECK	PASSED	08:32
SIMULATOR VAPOR 33.8°C	0.020	08:32
SIMULATOR VAPOR 33.8°C	0.021	08:33
SIMULATOR VAPOR 33.9°C	0.020	08:34
SIMULATOR VAPOR 33.8°C	0.021	08:35
SIMULATOR VAPOR 33.9°C	0.021	08:36
SIMULATOR VAPOR 33.8°C	0.020	08:37
SIMULATOR VAPOR 33.9°C	0.021	08:38
SIMULATOR VAPOR 33.9°C	0.020	08:39
SIMULATOR VAPOR 33.8°C	0.021	08:40
SIMULATOR VAPOR 33.8°C	0.023	08:41
BLANK TEST	0.000	08:43

Average = 0.020
Std Dev = 0.000

LJ 09/16/11 SA



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 08:48:07

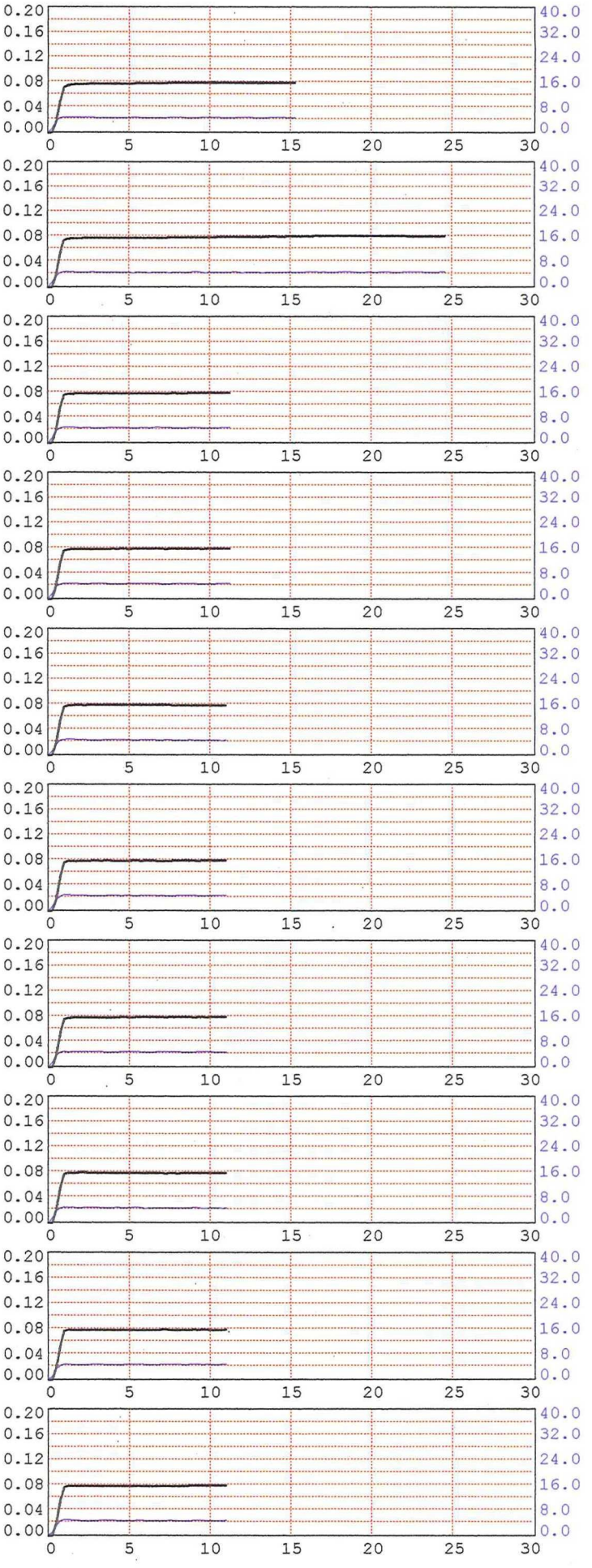
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	08:49
CALIBRATION CHECK	PASSED	08:49
SIMULATOR VAPOR 33.8°C	0.079	08:49
SIMULATOR VAPOR 33.9°C	0.080	08:50
SIMULATOR VAPOR 33.9°C	0.079	08:51
SIMULATOR VAPOR 33.9°C	0.080	08:52
SIMULATOR VAPOR 33.9°C	0.079	08:53
SIMULATOR VAPOR 33.8°C	0.079	08:54
SIMULATOR VAPOR 33.8°C	0.079	08:55
SIMULATOR VAPOR 33.8°C	0.080	08:56
SIMULATOR VAPOR 33.8°C	0.079	08:57
SIMULATOR VAPOR 33.8°C	0.079	08:59
BLANK TEST	0.000	08:59

Average = 0.079
Std Dev = 0.000

LB 09/16/11 SM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 09:02:59

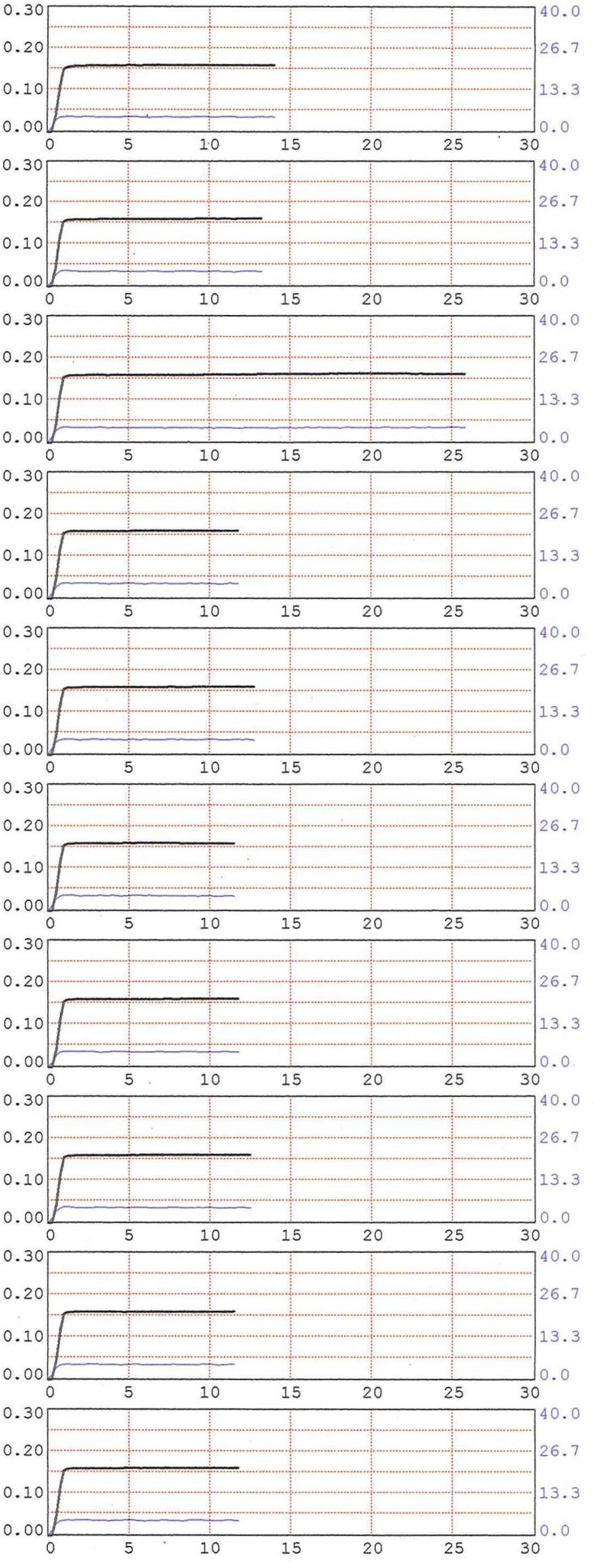
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	09:03
CALIBRATION CHECK	PASSED	09:04
SIMULATOR VAPOR 33.8°C	0.160	09:04
SIMULATOR VAPOR 33.8°C	0.160	09:05
SIMULATOR VAPOR 33.7°C	0.161	09:06
SIMULATOR VAPOR 33.9°C	0.161	09:07
SIMULATOR VAPOR 33.9°C	0.160	09:08
SIMULATOR VAPOR 33.8°C	0.161	09:09
SIMULATOR VAPOR 33.8°C	0.160	09:10
SIMULATOR VAPOR 33.8°C	0.161	09:11
SIMULATOR VAPOR 33.8°C	0.160	09:13
SIMULATOR VAPOR 33.9°C	0.160	09:14
BLANK TEST	0.000	09:14

Average = 0.160
Std Dev = 0.000

LJ 09/16/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 09:17:51

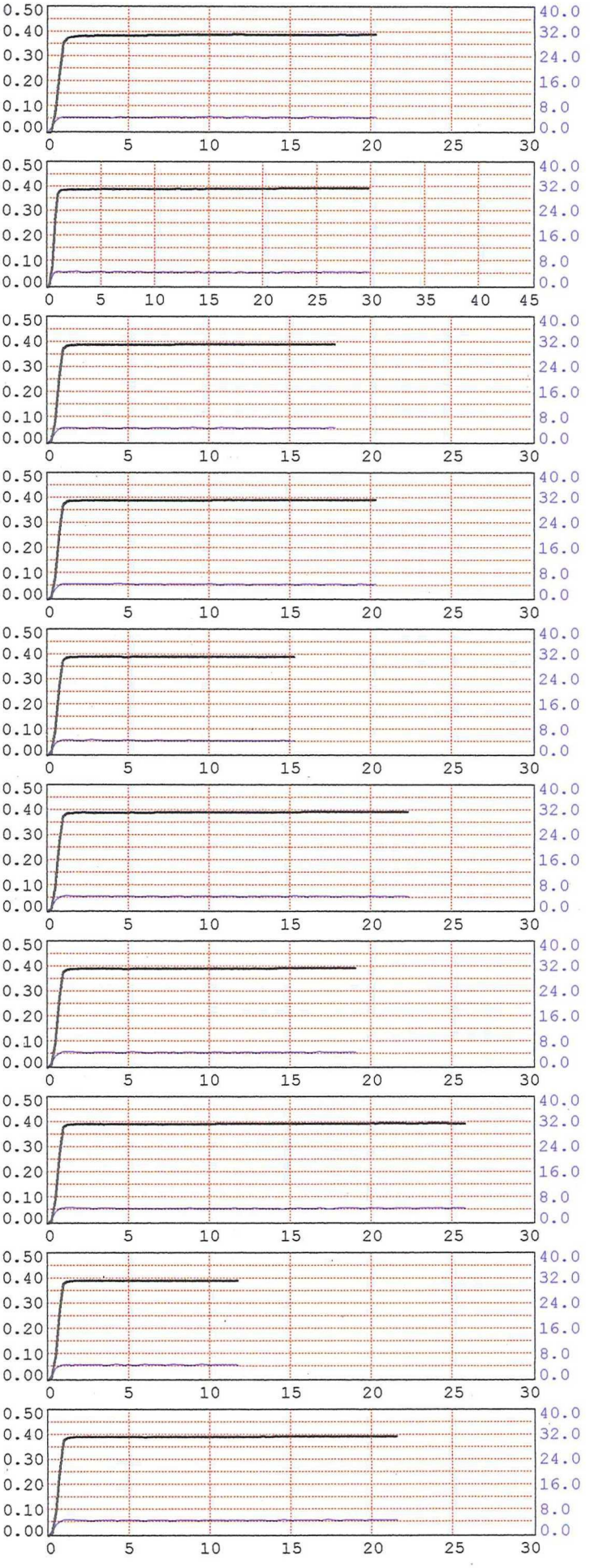
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	09:18
CALIBRATION CHECK	PASSED	09:18
SIMULATOR VAPOR 33.9°C	0.389	09:19
SIMULATOR VAPOR 33.8°C	0.391	09:20
SIMULATOR VAPOR 33.9°C	0.390	09:21
SIMULATOR VAPOR 33.9°C	0.390	09:23
SIMULATOR VAPOR 33.8°C	0.391	09:24
SIMULATOR VAPOR 33.8°C	0.392	09:25
SIMULATOR VAPOR 33.8°C	0.392	09:26
SIMULATOR VAPOR 33.8°C	0.392	09:27
SIMULATOR VAPOR 33.8°C	0.391	09:28
SIMULATOR VAPOR 33.8°C	0.392	09:30
BLANK TEST	0.000	09:30

Average = 0.391
Std Dev = 0.001

LJ 09/16/11



DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date: 09/15/2011
Installation Date:
Test Date: 09/19/2011
Test Time: 06:49:51

VERSIONS
DMT: 1.00
PIC: 2.06
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 48.1°C
Digital Sim = 33.8°C

SETTINGS
Lamp Voltage = 1.70 V
Cooler Voltage = 1.71 V
Bias Voltage = 80 V
Chopper Freq = 539 Hz

PUMP INFO
Flow Rate = 5.474 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	-0.0317	-0.0283
MIN(V)	-0.0346	-0.0297

FILTER INFO
Filter 1 -0.028 Zero = true
Filter 2 0.324 Zero = true
Filter 3 0.940 Zero = true

CALIBRATION CHECK
Xq = 0.078 0.11%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 07:19:02

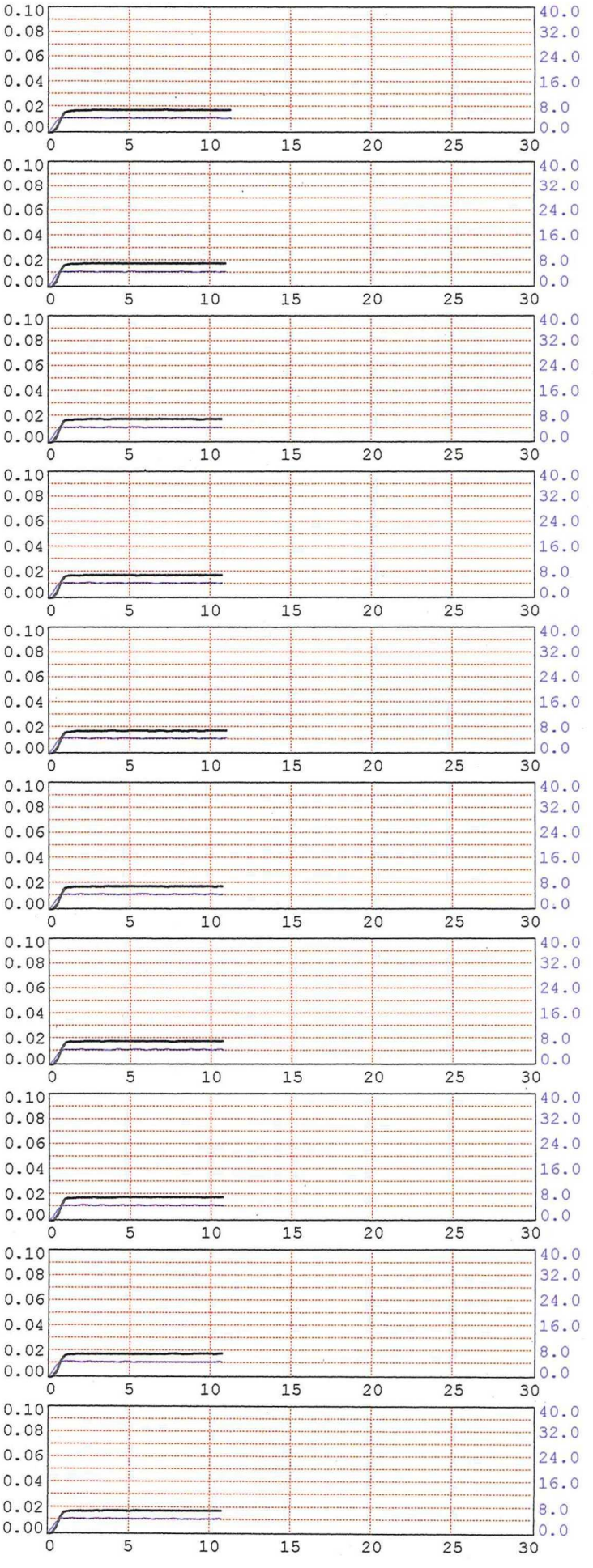
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	07:19
CALIBRATION CHECK	PASSED	07:20
SIMULATOR VAPOR 33.8°C	0.019	07:20
SIMULATOR VAPOR 33.9°C	0.019	07:21
SIMULATOR VAPOR 33.9°C	0.019	07:22
SIMULATOR VAPOR 33.9°C	0.019	07:23
SIMULATOR VAPOR 33.9°C	0.019	07:24
SIMULATOR VAPOR 33.9°C	0.019	07:25
SIMULATOR VAPOR 33.8°C	0.019	07:26
SIMULATOR VAPOR 33.9°C	0.019	07:27
SIMULATOR VAPOR 33.9°C	0.019	07:28
SIMULATOR VAPOR 33.8°C	0.019	07:29
BLANK TEST	0.000	07:30

Average = 0.019
Std Dev = 0.000

L-4
9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 07:38:39

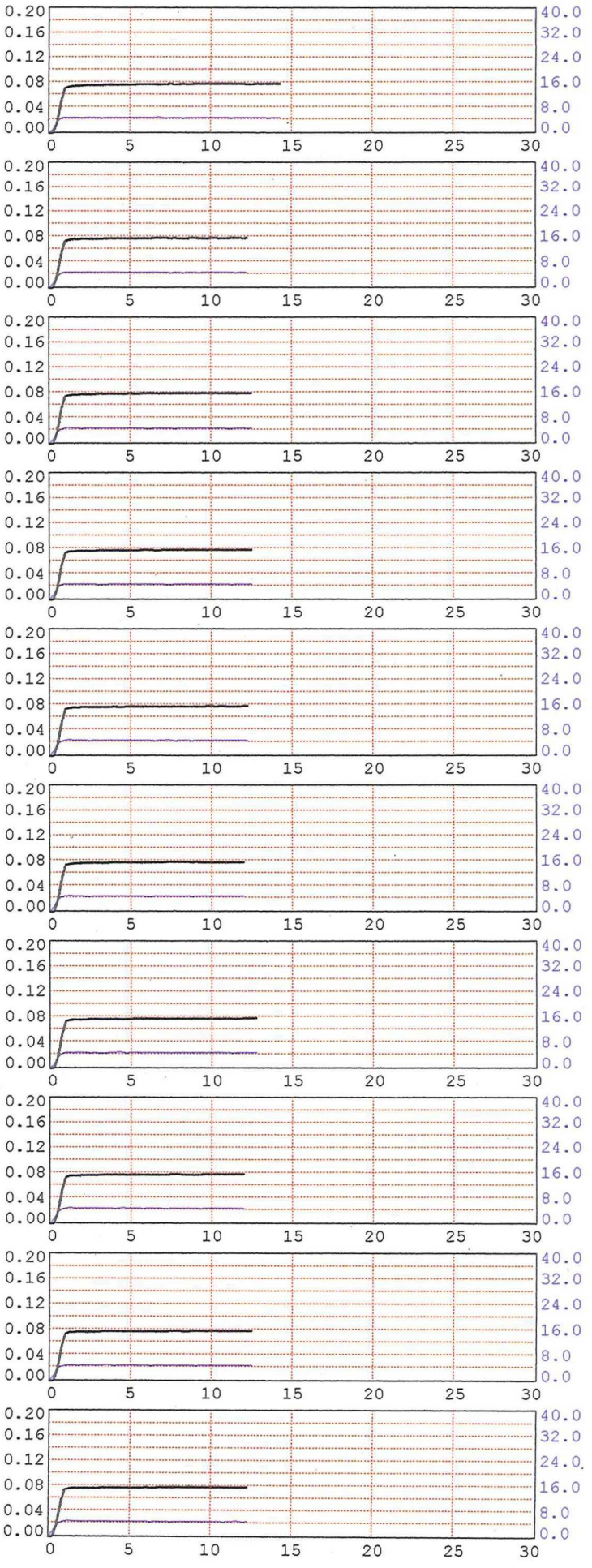
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	07:39
CALIBRATION CHECK	PASSED	07:39
SIMULATOR VAPOR 33.8°C	0.078	07:39
SIMULATOR VAPOR 33.9°C	0.078	07:41
SIMULATOR VAPOR 33.9°C	0.080	07:42
SIMULATOR VAPOR 33.8°C	0.078	07:43
SIMULATOR VAPOR 33.8°C	0.078	07:44
SIMULATOR VAPOR 33.9°C	0.079	07:45
SIMULATOR VAPOR 33.8°C	0.079	07:46
SIMULATOR VAPOR 33.8°C	0.079	07:47
SIMULATOR VAPOR 33.9°C	0.079	07:48
SIMULATOR VAPOR 33.9°C	0.079	07:49
BLANK TEST	0.000	07:50

Average = 0.078
Std Dev = 0.000

L-4
KLee
9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 07:57:35

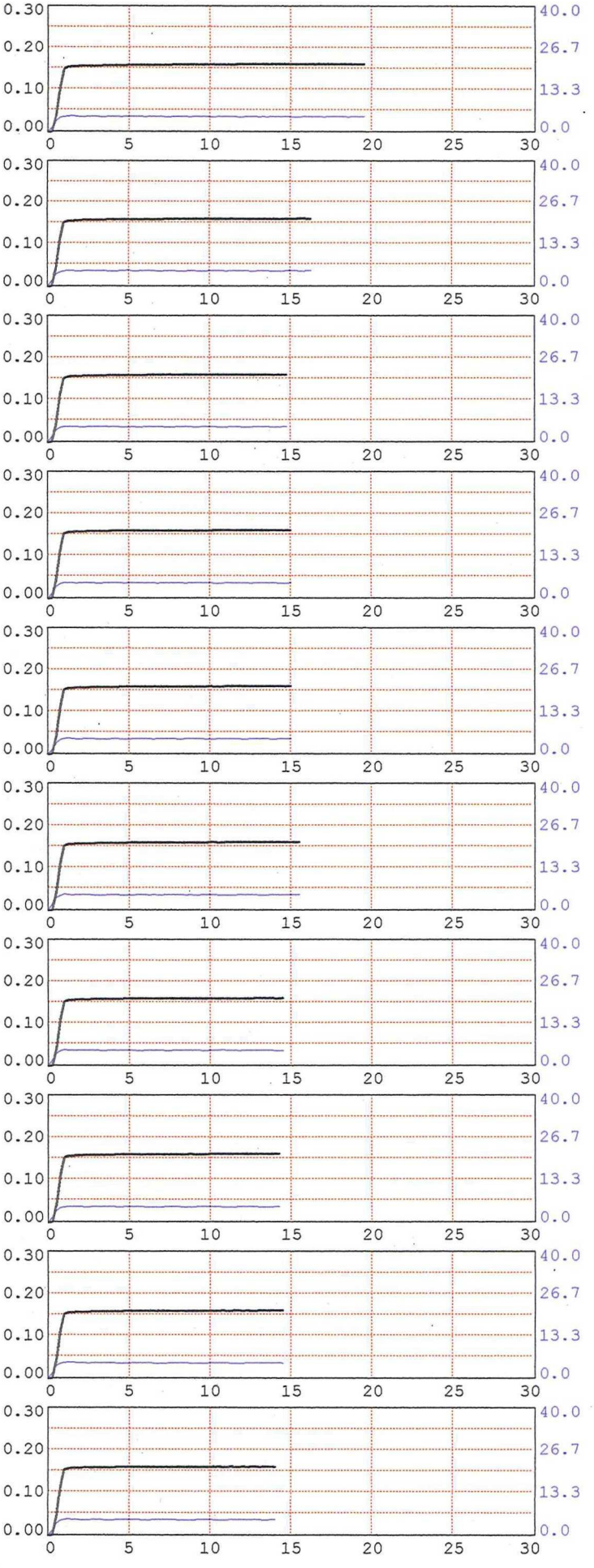
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	07:58
CALIBRATION CHECK	PASSED	07:58
SIMULATOR VAPOR 33.9°C	0.161	07:59
SIMULATOR VAPOR 33.9°C	0.160	08:00
SIMULATOR VAPOR 33.9°C	0.160	08:01
SIMULATOR VAPOR 33.8°C	0.161	08:02
SIMULATOR VAPOR 33.9°C	0.160	08:03
SIMULATOR VAPOR 33.9°C	0.160	08:04
SIMULATOR VAPOR 33.9°C	0.160	08:05
SIMULATOR VAPOR 33.9°C	0.161	08:06
SIMULATOR VAPOR 33.8°C	0.161	08:07
SIMULATOR VAPOR 33.9°C	0.161	08:08
BLANK TEST	0.000	08:09

Average = 0.160
Std Dev = 0.000

L-4
9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 08:14:17

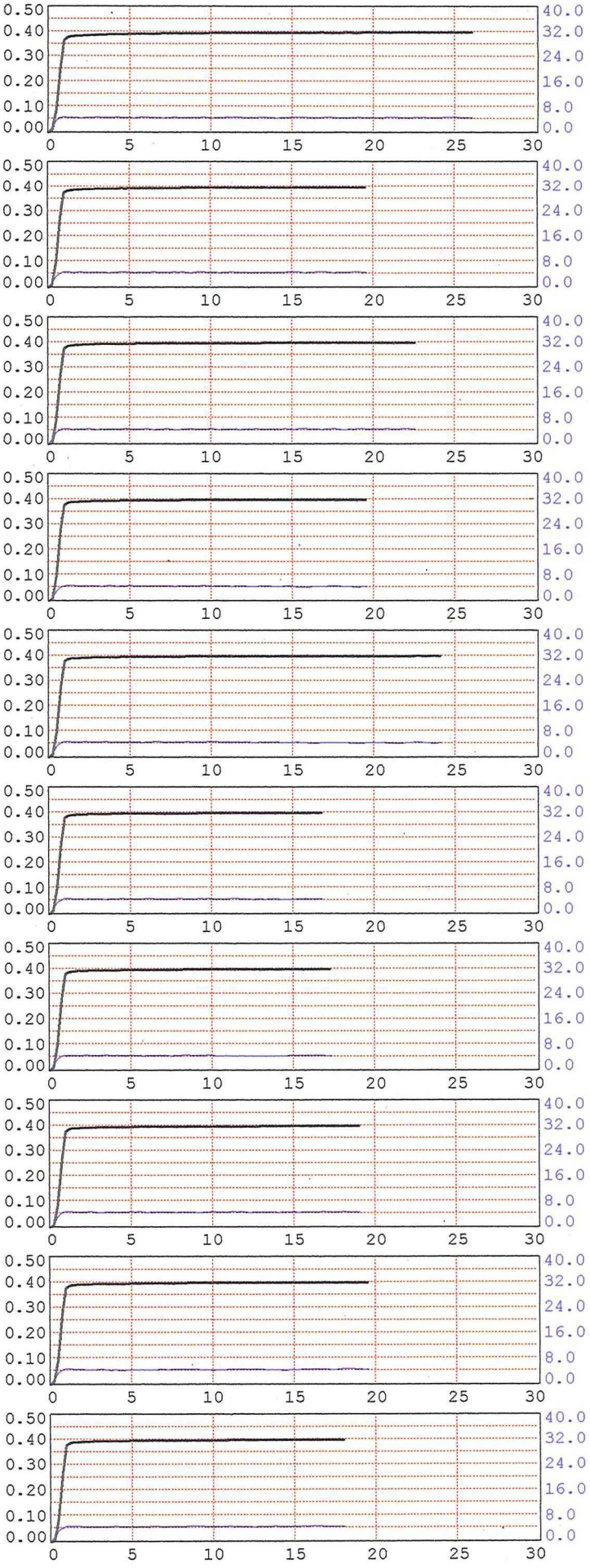
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	08:15
CALIBRATION CHECK	PASSED	08:15
SIMULATOR VAPOR 33.9°C	0.396	08:15
SIMULATOR VAPOR 33.8°C	0.395	08:17
SIMULATOR VAPOR 33.9°C	0.396	08:18
SIMULATOR VAPOR 33.9°C	0.396	08:19
SIMULATOR VAPOR 33.8°C	0.396	08:20
SIMULATOR VAPOR 33.9°C	0.395	08:21
SIMULATOR VAPOR 33.8°C	0.397	08:22
SIMULATOR VAPOR 33.8°C	0.396	08:24
SIMULATOR VAPOR 33.8°C	0.397	08:25
SIMULATOR VAPOR 33.9°C	0.396	08:26
BLANK TEST	0.000	08:27

Average = 0.396
Std Dev = 0.000

L-4
9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 09:40:37

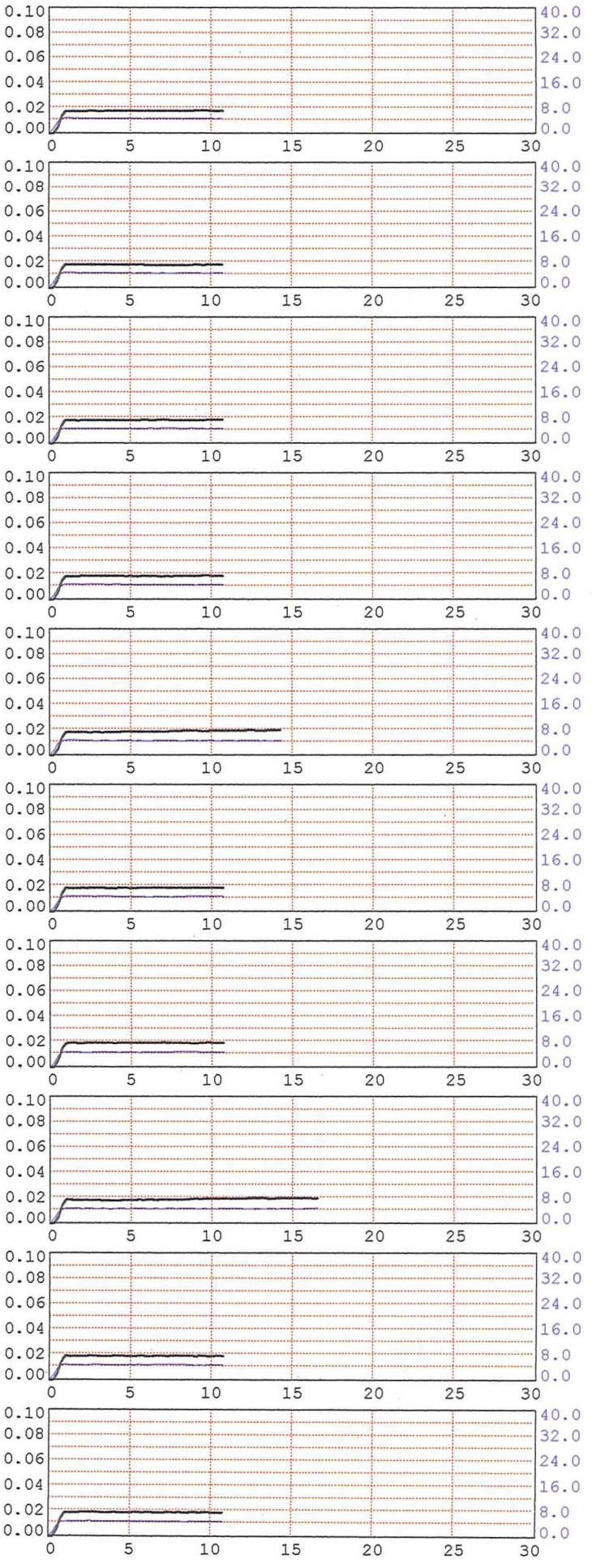
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	09:41
CALIBRATION CHECK	PASSED	09:41
SIMULATOR VAPOR 33.8°C	0.018	09:41
SIMULATOR VAPOR 33.8°C	0.020	09:42
SIMULATOR VAPOR 33.8°C	0.019	09:43
SIMULATOR VAPOR 33.9°C	0.020	09:44
SIMULATOR VAPOR 33.8°C	0.021	09:46
SIMULATOR VAPOR 33.8°C	0.019	09:47
SIMULATOR VAPOR 33.8°C	0.020	09:48
SIMULATOR VAPOR 33.8°C	0.022	09:49
SIMULATOR VAPOR 33.8°C	0.020	09:50
SIMULATOR VAPOR 33.8°C	0.020	09:51
BLANK TEST	0.000	09:52

Average = 0.019
Std Dev = 0.001

L-5 Passed 9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 09:55:49

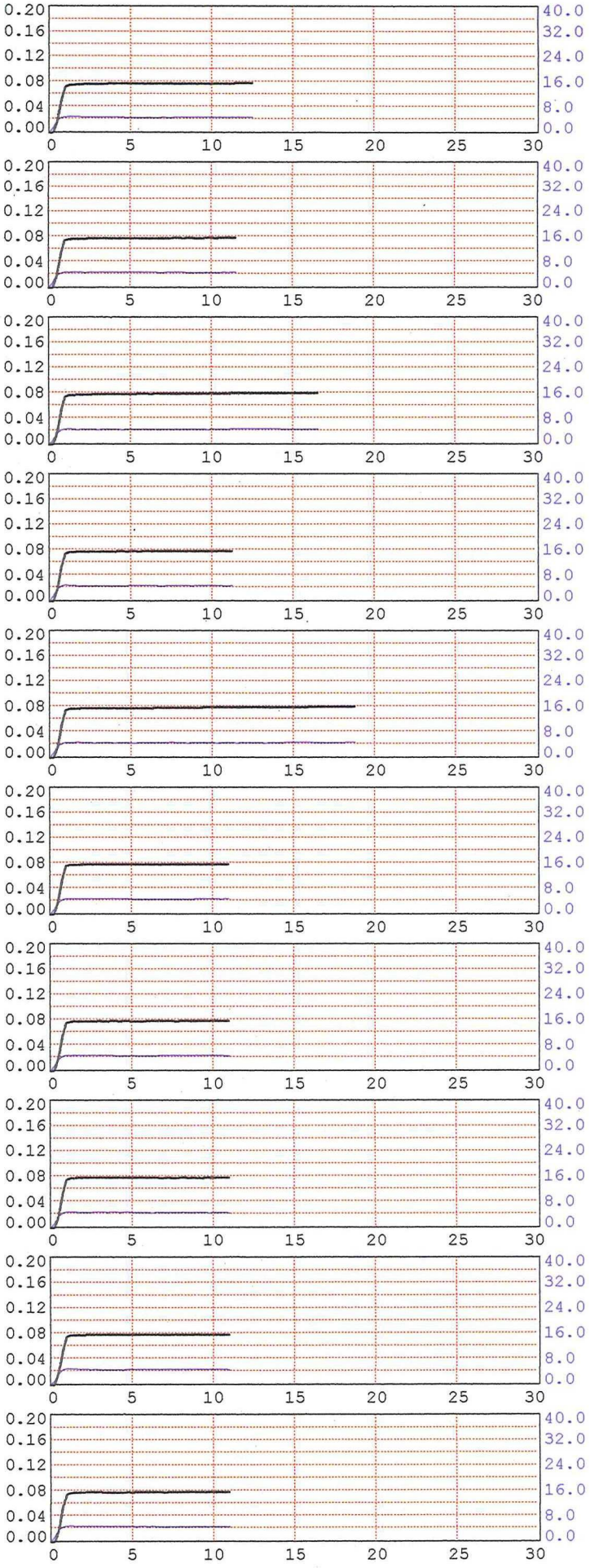
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	09:56
CALIBRATION CHECK	PASSED	09:56
SIMULATOR VAPOR 33.8°C	0.078	09:57
SIMULATOR VAPOR 33.8°C	0.078	09:58
SIMULATOR VAPOR 33.9°C	0.080	09:59
SIMULATOR VAPOR 33.8°C	0.079	10:00
SIMULATOR VAPOR 33.8°C	0.080	10:01
SIMULATOR VAPOR 33.9°C	0.079	10:02
SIMULATOR VAPOR 33.9°C	0.079	10:03
SIMULATOR VAPOR 33.9°C	0.079	10:04
SIMULATOR VAPOR 33.8°C	0.079	10:05
SIMULATOR VAPOR 33.8°C	0.079	10:06
BLANK TEST	0.000	10:07

Average = 0.079
Std Dev = 0.000

L-5
KLK
9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 10:20:47

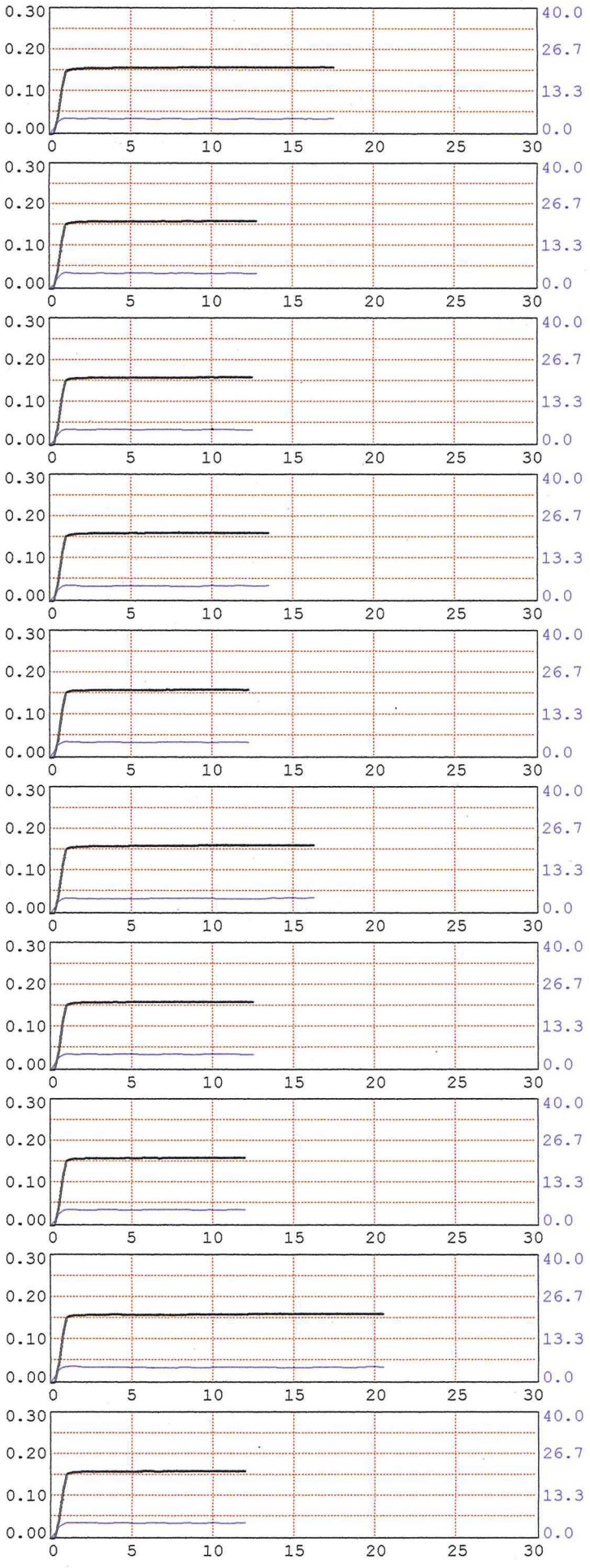
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	10:21
CALIBRATION CHECK	PASSED	10:21
SIMULATOR VAPOR 33.8°C	0.159	10:22
SIMULATOR VAPOR 33.8°C	0.160	10:23
SIMULATOR VAPOR 33.8°C	0.159	10:24
SIMULATOR VAPOR 33.8°C	0.161	10:25
SIMULATOR VAPOR 33.8°C	0.159	10:26
SIMULATOR VAPOR 33.9°C	0.161	10:27
SIMULATOR VAPOR 33.8°C	0.160	10:28
SIMULATOR VAPOR 33.9°C	0.159	10:29
SIMULATOR VAPOR 33.8°C	0.161	10:30
SIMULATOR VAPOR 33.9°C	0.160	10:32
BLANK TEST	0.000	10:32

Average = 0.159
Std Dev = 0.000

L-5
KLK
9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 10:38:10

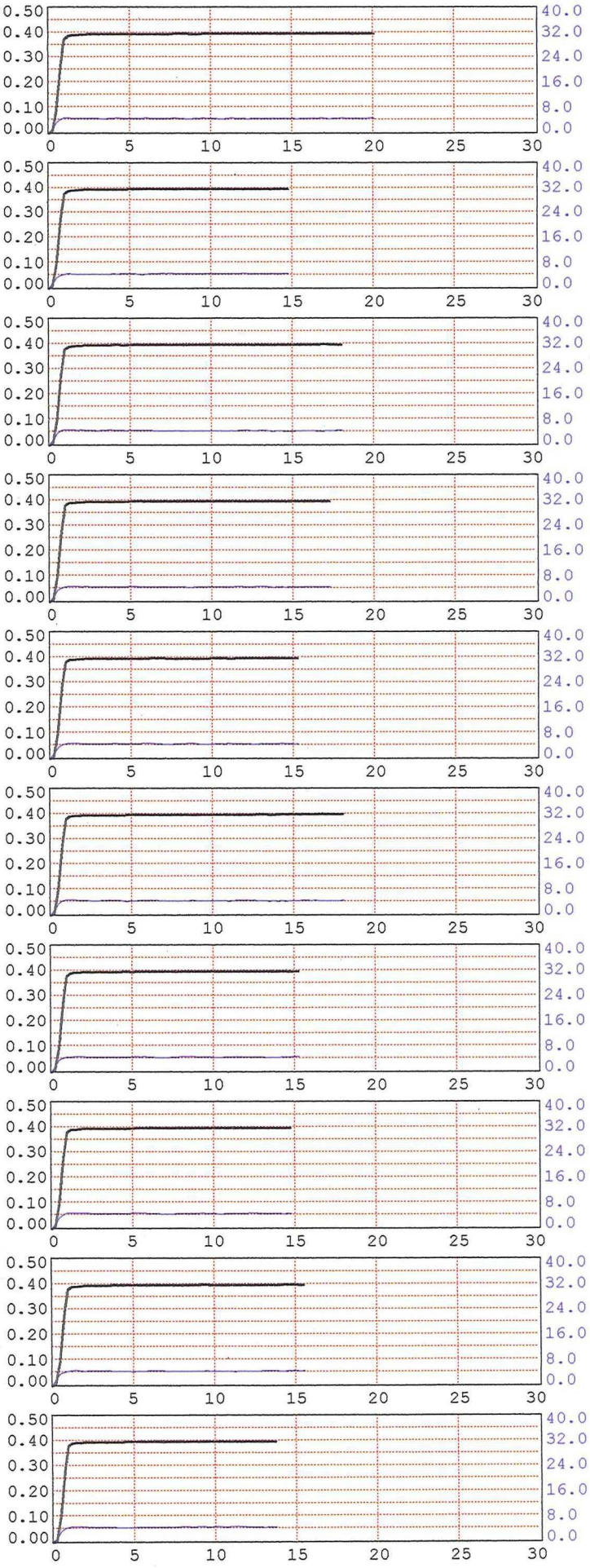
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	10:39
CALIBRATION CHECK	PASSED	10:39
SIMULATOR VAPOR 33.8°C	0.395	10:39
SIMULATOR VAPOR 33.9°C	0.394	10:40
SIMULATOR VAPOR 33.9°C	0.395	10:41
SIMULATOR VAPOR 33.9°C	0.395	10:43
SIMULATOR VAPOR 33.8°C	0.394	10:44
SIMULATOR VAPOR 33.9°C	0.395	10:45
SIMULATOR VAPOR 33.9°C	0.395	10:46
SIMULATOR VAPOR 33.9°C	0.394	10:47
SIMULATOR VAPOR 33.9°C	0.395	10:48
SIMULATOR VAPOR 33.8°C	0.394	10:49
BLANK TEST	0.000	10:50

Average = 0.394
Std Dev = 0.000

L-5
9-15-11



SECTION 4

INTERFERENCE TESTS

DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date:
Installation Date:
Test Date: 09/14/2011
Test Time: 14:23:11

```
VERSIONS
DMT: 1.00
PIC: 2.06
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube    = 48.1°C
Digital Sim    = 34.0°C

SETTINGS
Lamp Voltage   = 1.70 V
Cooler Voltage = 1.72 V
Bias Voltage   = 80 V
Chopper Freq   = 539 Hz

PUMP INFO
Flow Rate = 5.326 L/M

DETECTOR INFO
PUMP     ON         OFF
MAX(V)    0.0179     0.0201
MIN(V)    0.0165     0.0187

FILTER INFO
Filter 1   0.019  Zero = true
Filter 2   0.371  Zero = true
Filter 3   1.006  Zero = true

CALIBRATION CHECK
Xq  = 0.079  0.67%
```

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

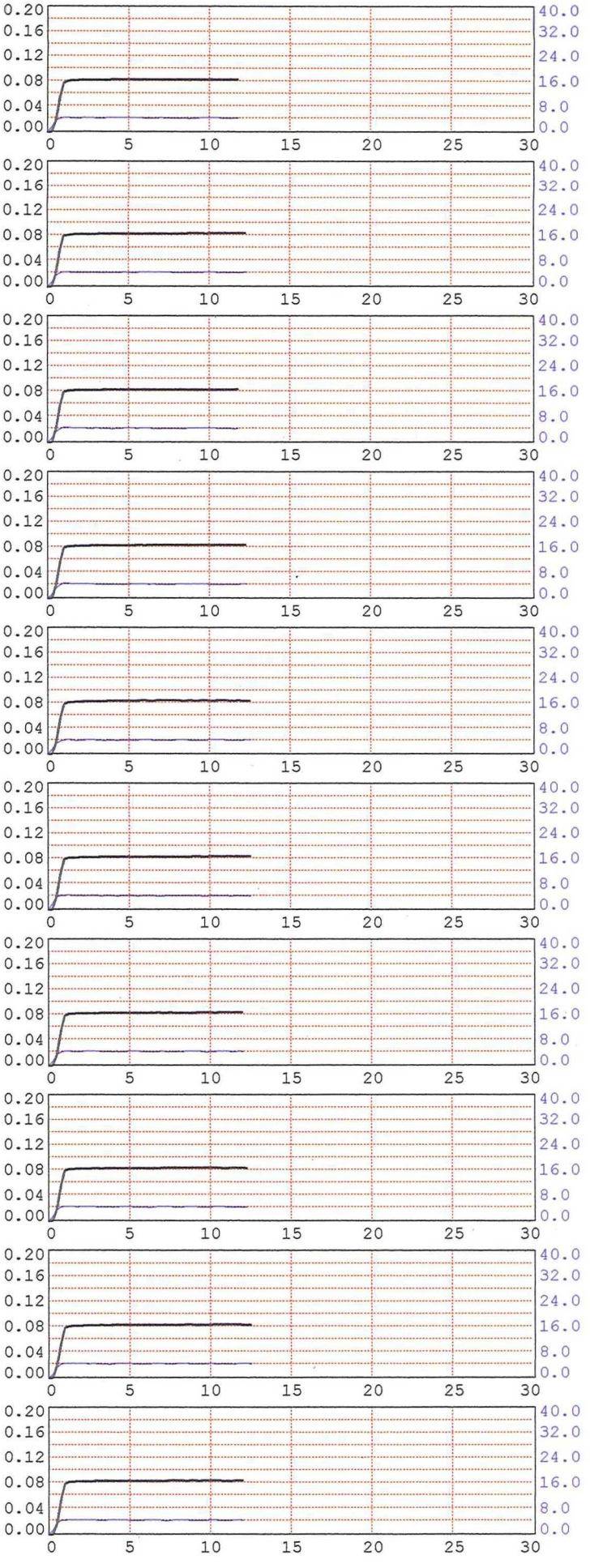
Date: 09/14/2011
Time: 14:28:15

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-09-080A1
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	14:29
CALIBRATION CHECK	PASSED	14:29
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:29
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:30
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:31
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:32
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:33
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:34
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:35
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:36
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:37
SIMULATOR VAPOR 34.0°CINTERFERENCE		14:39
BLANK TEST	0.000	14:39

100%
0.01 Acetone
0.080E+01
VKE AC
9-14-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/15/2011
Time: 14:34:59

SUPERVISOR NAME:
KIRK L KIMBALL

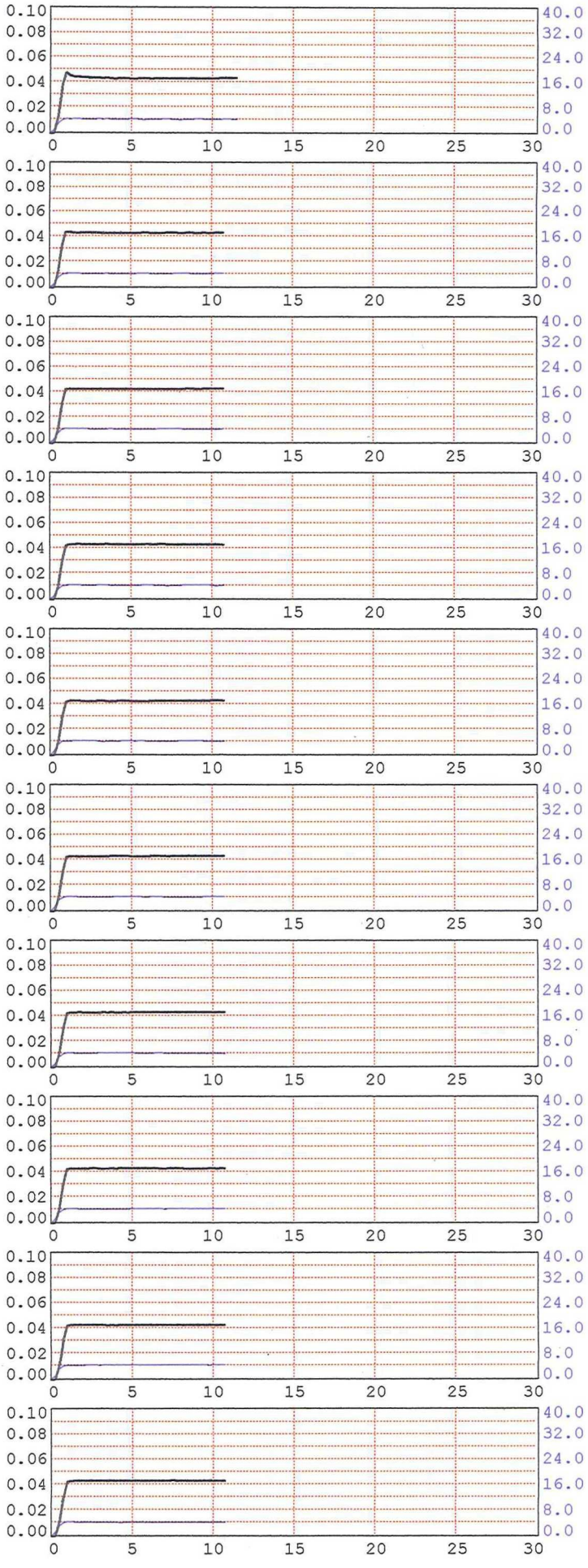
SOLUTION LOT #: 12-10-040A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	14:35
CALIBRATION CHECK	PASSED	14:35
SIMULATOR VAPOR 33.9°C	INTERFERENCE	14:36
SIMULATOR VAPOR 33.8°C	INTERFERENCE	14:37
SIMULATOR VAPOR 33.9°C	INTERFERENCE	14:38
SIMULATOR VAPOR 33.9°C	INTERFERENCE	14:39
SIMULATOR VAPOR 33.9°C	INTERFERENCE	14:40
SIMULATOR VAPOR 33.9°C	INTERFERENCE	14:41
SIMULATOR VAPOR 33.8°C	INTERFERENCE	14:42
SIMULATOR VAPOR 33.8°C	INTERFERENCE	14:43
SIMULATOR VAPOR 33.9°C	INTERFERENCE	14:44
SIMULATOR VAPOR 33.8°C	INTERFERENCE	14:45
BLANK TEST	0.000	14:46

100% 09/15/11 SK

KLK 9-15-11

0.01% Acetone/0.04% EtOH



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 08:12:37

SUPERVISOR NAME:
STEVEN R MERRILL

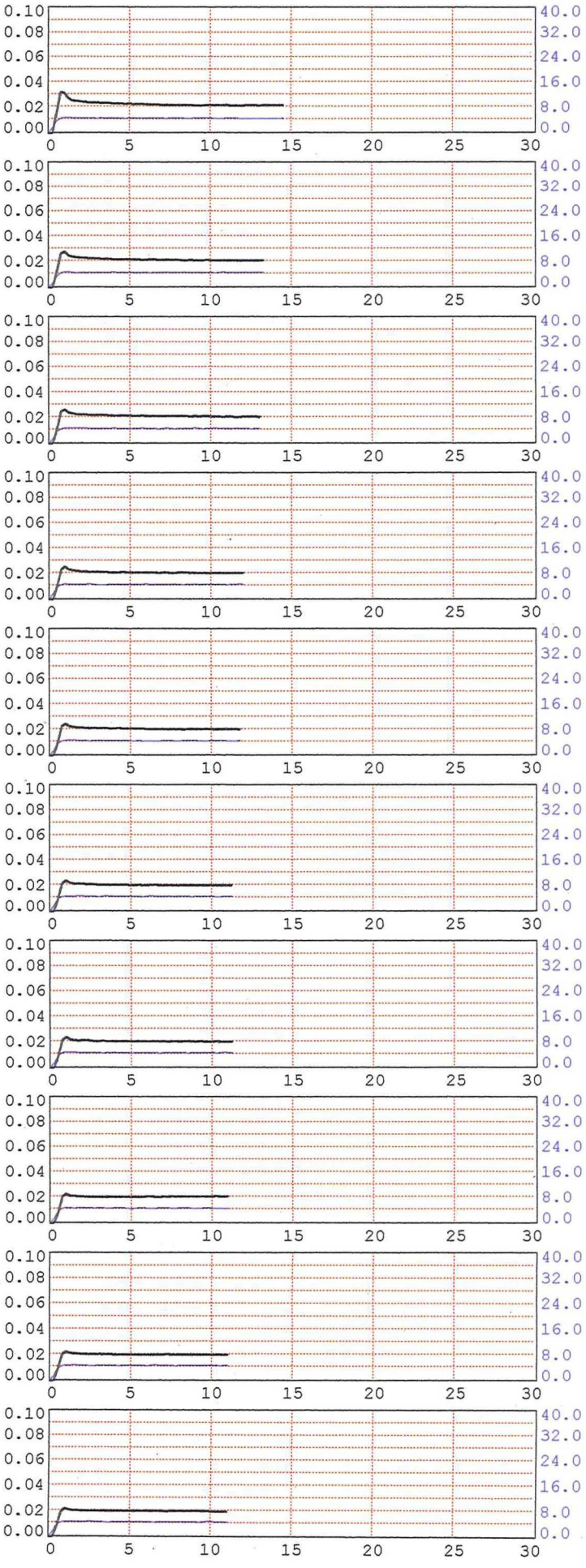
SOLUTION LOT #: 12-05-040M
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	08:13
CALIBRATION CHECK	PASSED	08:13
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:13
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:15
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:16
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:17
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:18
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:19
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:20
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:21
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:22
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:23
BLANK TEST	0.000	08:24

100% 09/16/11 sh

9-16-11

0.04% $NaOH/H_2O$



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 11:45:17

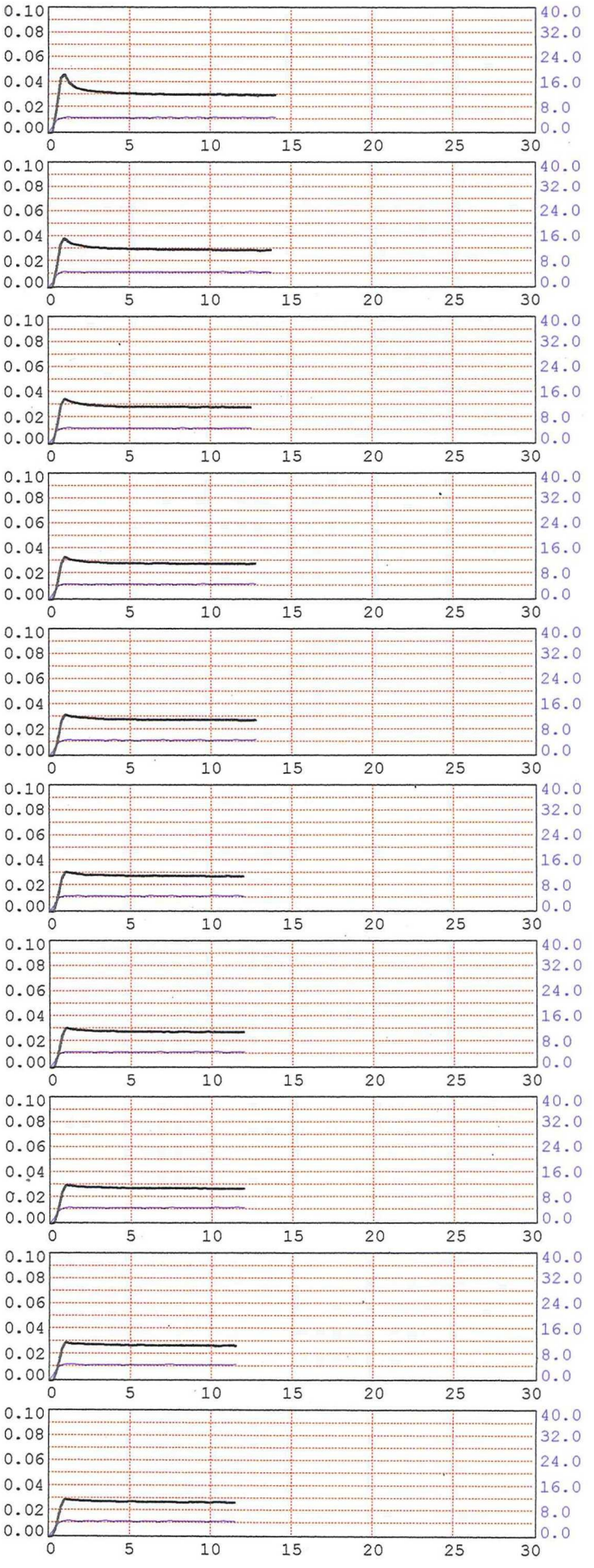
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-06-040I
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	11:46
CALIBRATION CHECK	PASSED	11:46
SIMULATOR VAPOR 33.9°CINTERFERENCE		11:46
SIMULATOR VAPOR 33.8°CINTERFERENCE		11:47
SIMULATOR VAPOR 33.9°CINTERFERENCE		11:48
SIMULATOR VAPOR 33.9°CINTERFERENCE		11:49
SIMULATOR VAPOR 33.8°CINTERFERENCE		11:50
SIMULATOR VAPOR 33.8°CINTERFERENCE		11:51
SIMULATOR VAPOR 33.9°CINTERFERENCE		11:52
SIMULATOR VAPOR 33.8°CINTERFERENCE		11:54
SIMULATOR VAPOR 33.8°CINTERFERENCE		11:55
SIMULATOR VAPOR 33.9°CINTERFERENCE		11:56
BLANK TEST	0.000	11:56

100% 09/16/11 SH

0.04% IPA/H_2O 9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 08:33:00

SUPERVISOR NAME:
KIRK L KIMBALL

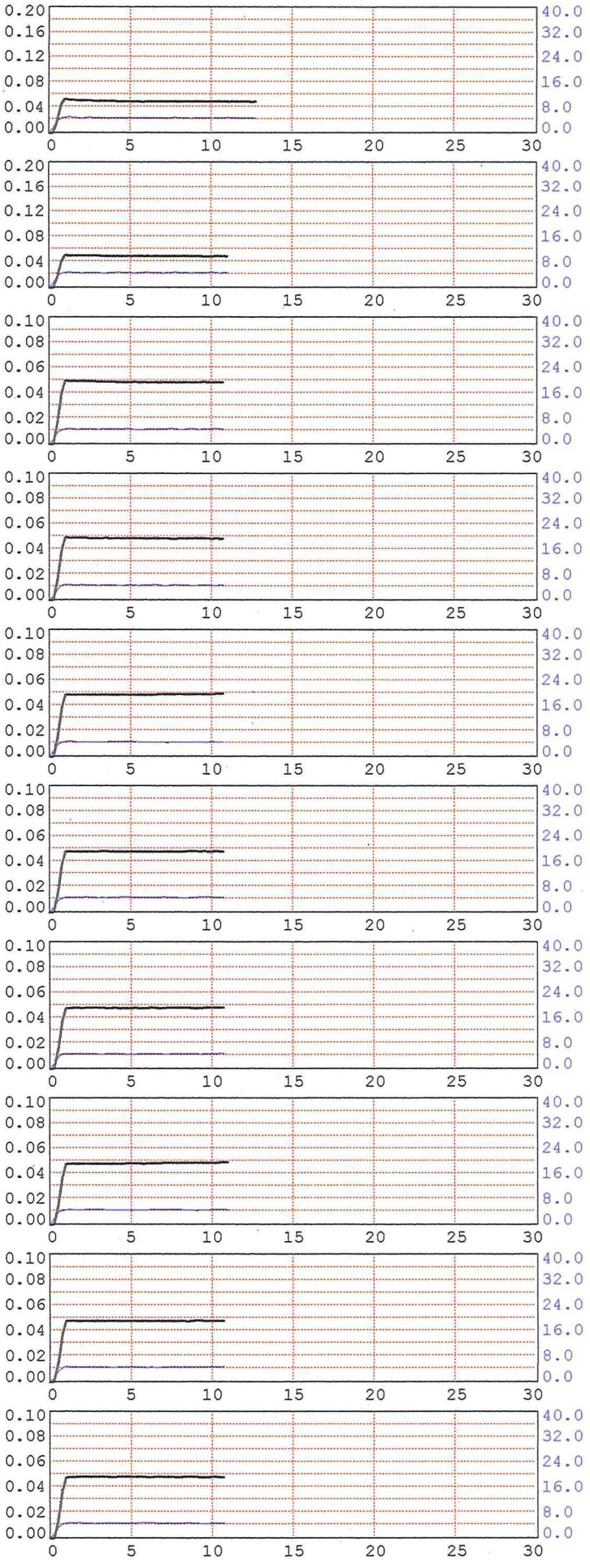
SOLUTION LOT #: 12-01-040A2
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	08:33
CALIBRATION CHECK	PASSED	08:34
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:34
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:35
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:36
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:37
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:38
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:39
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:40
SIMULATOR VAPOR 33.7°CINTERFERENCE		08:41
SIMULATOR VAPOR 33.8°CINTERFERENCE		08:42
SIMULATOR VAPOR 33.9°CINTERFERENCE		08:43
BLANK TEST	0.000	08:44

100% 09/19/11 [signature]

[signature] 9-19-11

0.02 Acetone
0.040 EtOH



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 08:57:51

SUPERVISOR NAME:
STEVEN R MERRILL

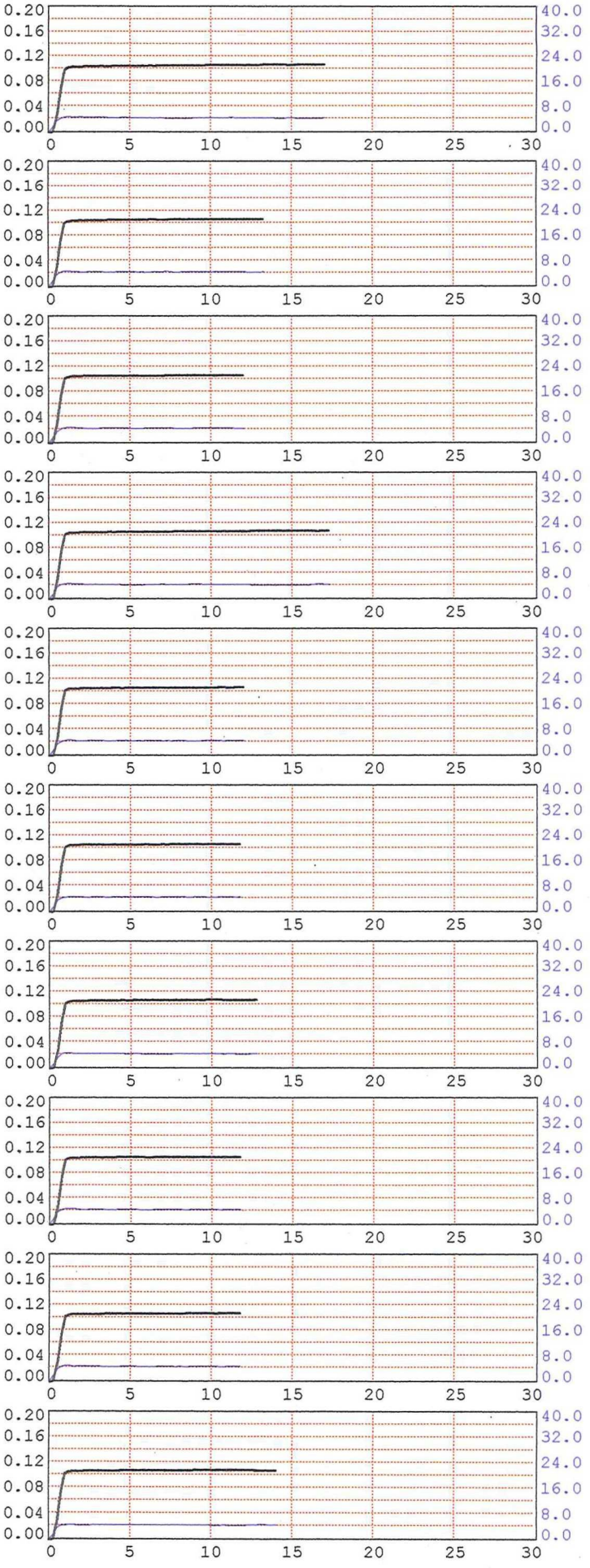
SOLUTION LOT #: 12-10-080I
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	08:58
CALIBRATION CHECK	PASSED	08:58
SIMULATOR VAPOR 33.8°C	INTERFERENCE	08:59
SIMULATOR VAPOR 33.9°C	INTERFERENCE	09:00
SIMULATOR VAPOR 33.9°C	INTERFERENCE	09:01
SIMULATOR VAPOR 33.8°C	INTERFERENCE	09:02
SIMULATOR VAPOR 33.9°C	INTERFERENCE	09:03
SIMULATOR VAPOR 33.8°C	INTERFERENCE	09:04
SIMULATOR VAPOR 33.8°C	INTERFERENCE	09:05
SIMULATOR VAPOR 33.8°C	INTERFERENCE	09:06
SIMULATOR VAPOR 33.8°C	INTERFERENCE	09:07
SIMULATOR VAPOR 33.9°C	INTERFERENCE	09:08
BLANK TEST	0.000	09:09

100% 09/19/11 ST

9-19-11

0.04% IPA | 0.08% EtOH



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

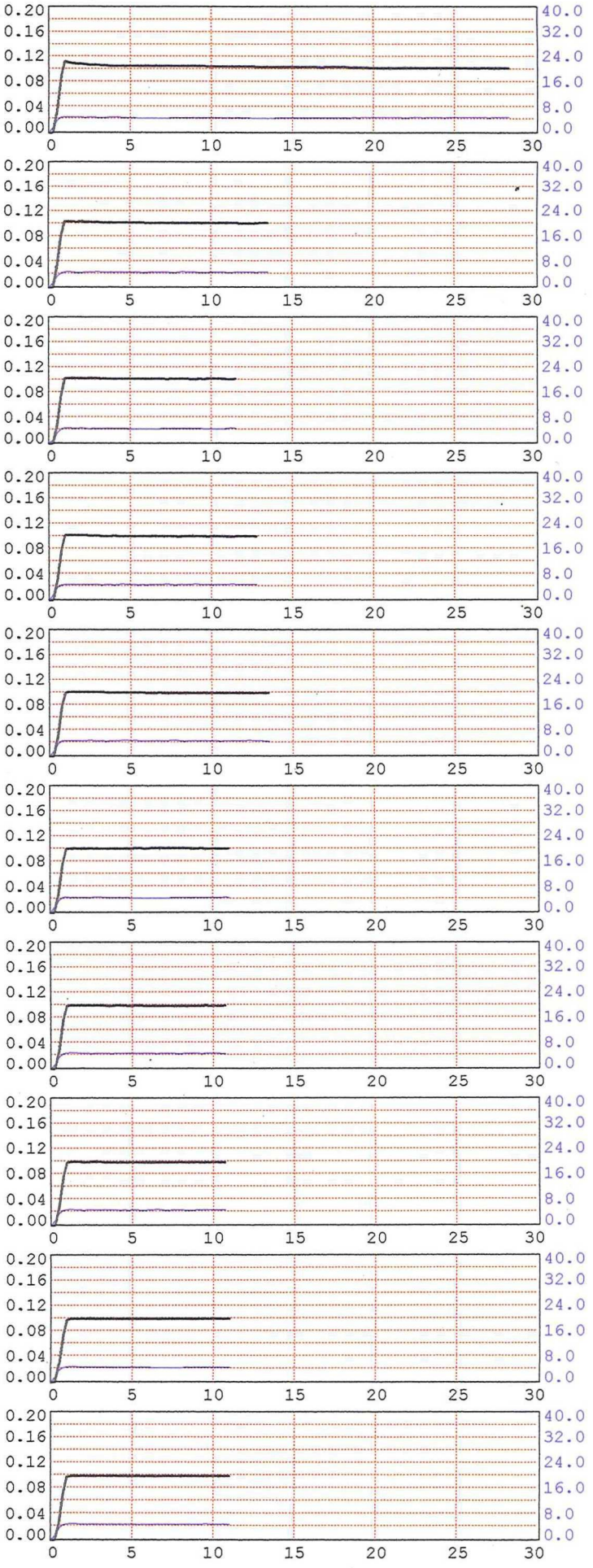
Date: 09/19/2011
Time: 10:59:46

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-04-080M
SOLUTION CONCENTRATION: 0.080

BLANK TEST	0.000	11:00
CALIBRATION CHECK	PASSED	11:00
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:01
SIMULATOR VAPOR 34.2°C	INTERFERENCE	11:02
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:03
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:04
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:05
SIMULATOR VAPOR 34.2°C	INTERFERENCE	11:06
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:07
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:08
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:09
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:10
BLANK TEST	0.000	11:11

0.04 MeOH
0.080 EtOH
100%
9-19-11



SECTION 5

FINAL CALIBRATION CHECK TESTS

DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date: 09/15/2011
Installation Date:
Test Date: 09/19/2011
Test Time: 11:26:19

VERSIONS
DMT: 1.00
PIC: 2.06
Modem: 2.1
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube = 48.1°C
Digital Sim = 34.1°C

SETTINGS
Lamp Voltage = 1.70 V
Cooler Voltage = 1.72 V
Bias Voltage = 80 V
Chopper Freq = 543 Hz

PUMP INFO
Flow Rate = 5.545 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0069	0.0091
MIN(V)	0.0053	0.0077

FILTER INFO
Filter 1 0.008 Zero = true
Filter 2 0.358 Zero = true
Filter 3 1.007 Zero = true

CALIBRATION CHECK
Xq = 0.080 2.33%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 11:28:48

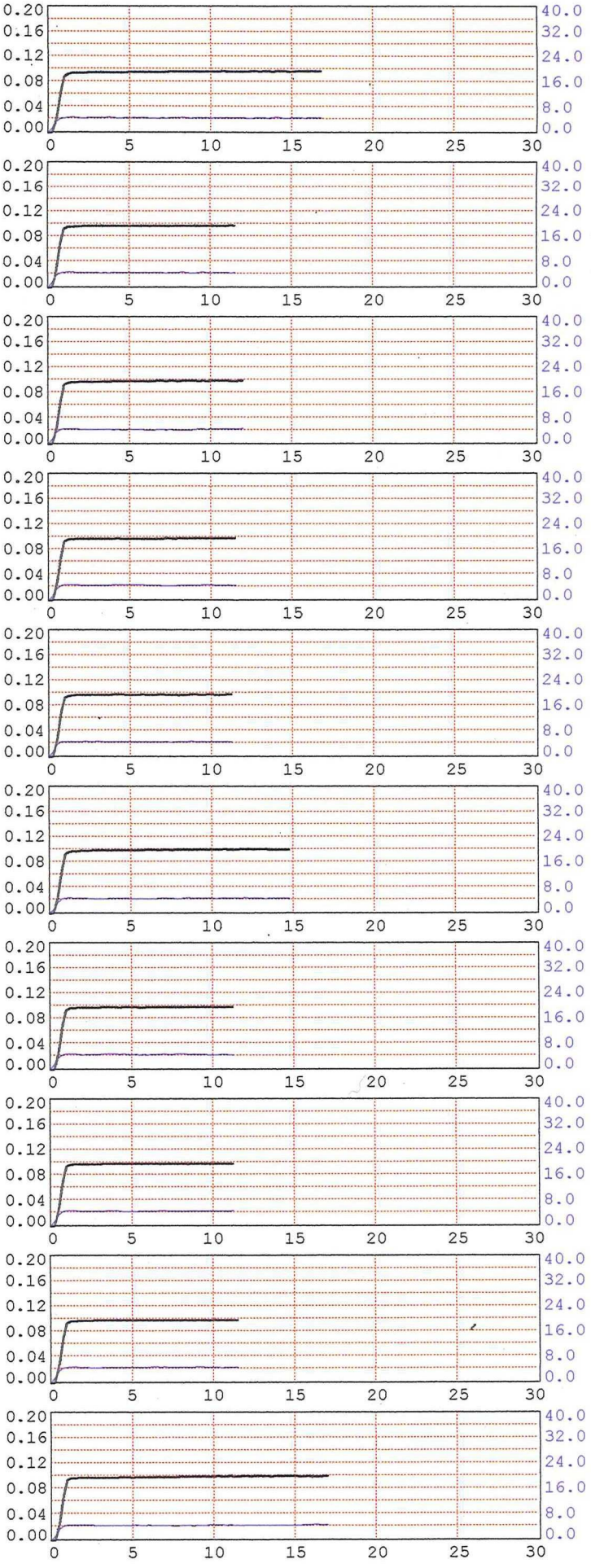
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	11:29
CALIBRATION CHECK	PASSED	11:29
SIMULATOR VAPOR 34.1°C	0.098	11:30
SIMULATOR VAPOR 34.1°C	0.098	11:31
SIMULATOR VAPOR 34.1°C	0.099	11:32
SIMULATOR VAPOR 34.1°C	0.098	11:33
SIMULATOR VAPOR 34.0°C	0.098	11:34
SIMULATOR VAPOR 34.1°C	0.100	11:35
SIMULATOR VAPOR 34.0°C	0.098	11:36
SIMULATOR VAPOR 34.1°C	0.099	11:37
SIMULATOR VAPOR 34.1°C	0.099	11:38
SIMULATOR VAPOR 34.1°C	0.100	11:39
BLANK TEST	0.000	11:40

Average = 0.098
Std Dev = 0.000

In house Cal Check KMC 9-19-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/19/2011
Time: 11:45:47

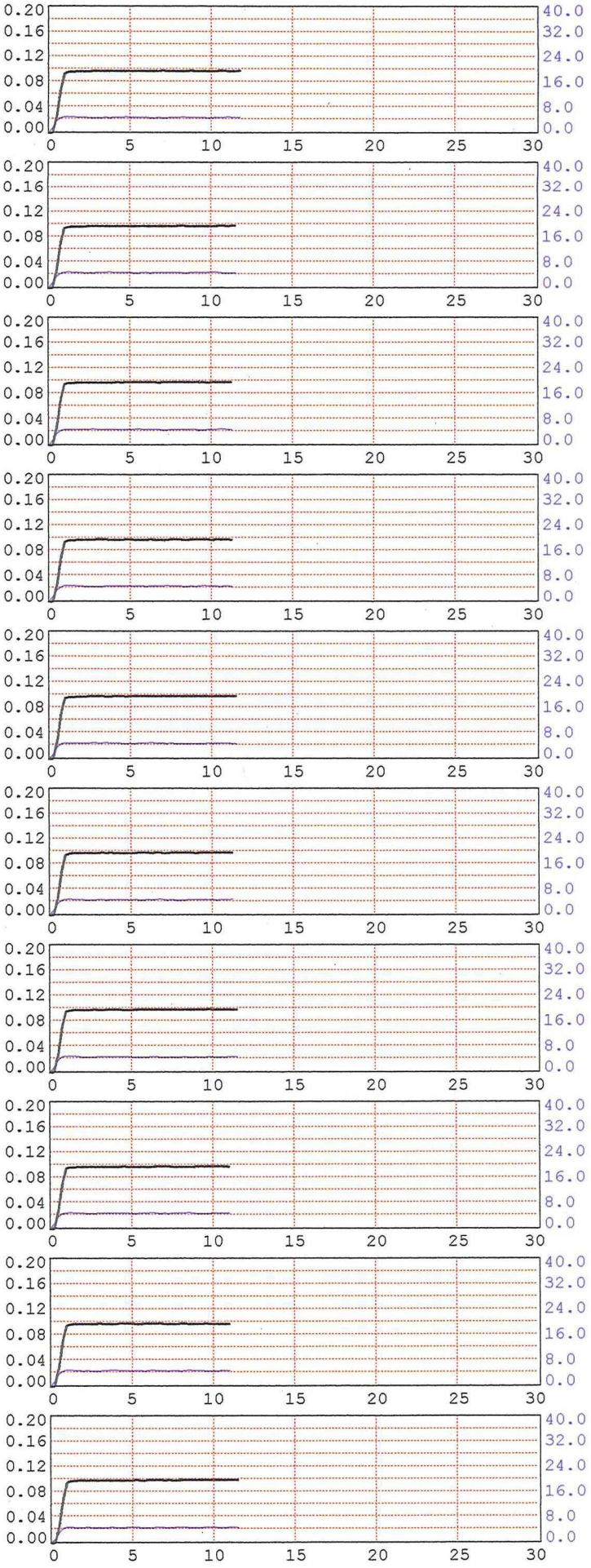
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: GUTH 11050
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	11:46
CALIBRATION CHECK	PASSED	11:46
SIMULATOR VAPOR 34.2°C	0.099	11:47
SIMULATOR VAPOR 34.1°C	0.098	11:48
SIMULATOR VAPOR 34.1°C	0.099	11:49
SIMULATOR VAPOR 34.2°C	0.099	11:50
SIMULATOR VAPOR 34.1°C	0.099	11:51
SIMULATOR VAPOR 34.2°C	0.099	11:52
SIMULATOR VAPOR 34.2°C	0.099	11:53
SIMULATOR VAPOR 34.1°C	0.099	11:54
SIMULATOR VAPOR 34.2°C	0.099	11:55
SIMULATOR VAPOR 34.2°C	0.100	11:56
BLANK TEST	0.000	11:57

Average = 0.099
Std Dev = 0.000

2nd source cal check KLK



SECTION 6

ERROR REPORTS

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

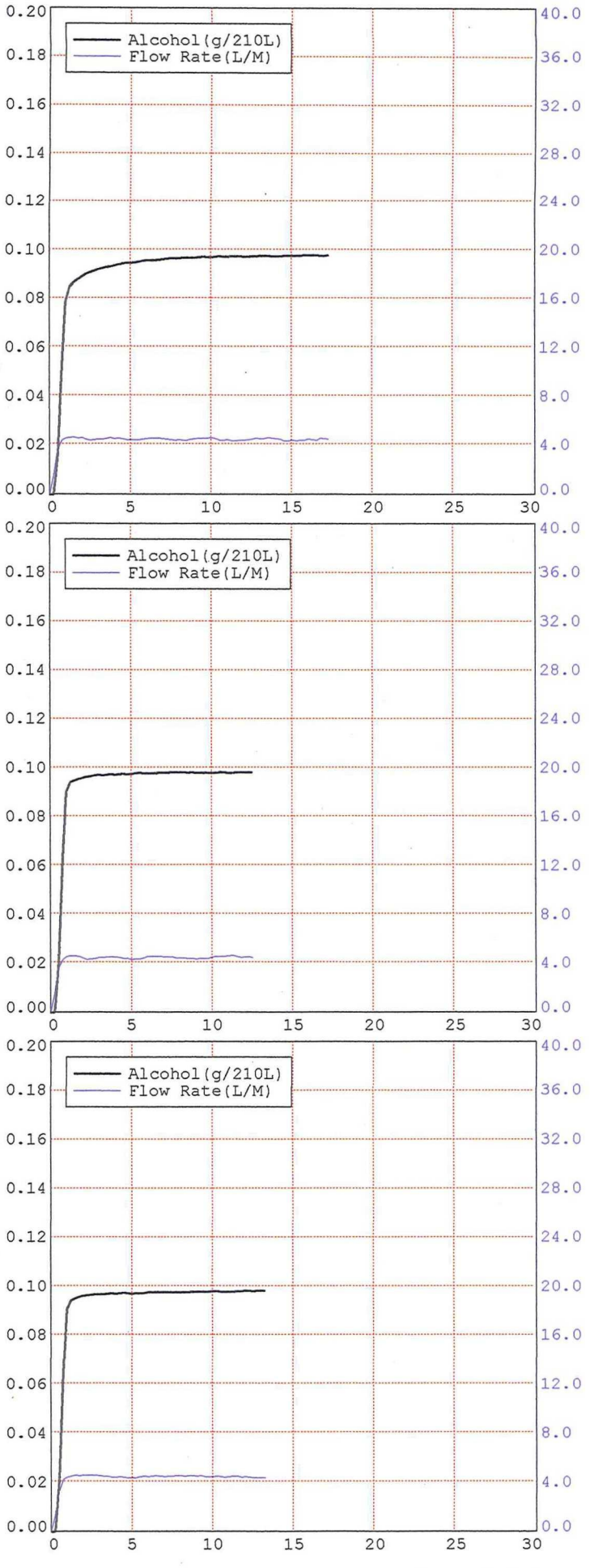
Date: 09/14/2011
Time: 14:00:24

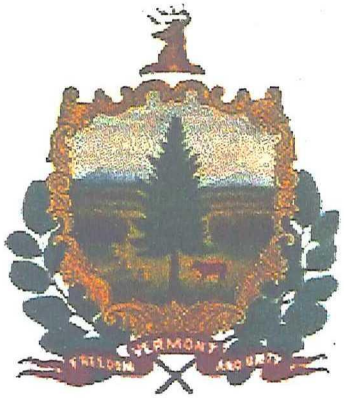
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	14:01
CALIBRATION CHECK	PASSED	14:01
SIMULATOR VAPOR 33.6°C	0.098	14:01
SIMULATOR VAPOR 33.6°C	0.098	14:02
SIMULATOR VAPOR 33.6°C	0.098	14:03

Simulator Temperature Too Low





ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/16/2011
Time: 11:42:58

SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-06-040I
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	11:43
CALIBRATION CHECK	PASSED	11:43

Simulator Timed Out