SECTION 4

INTERFERENCE TESTS

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

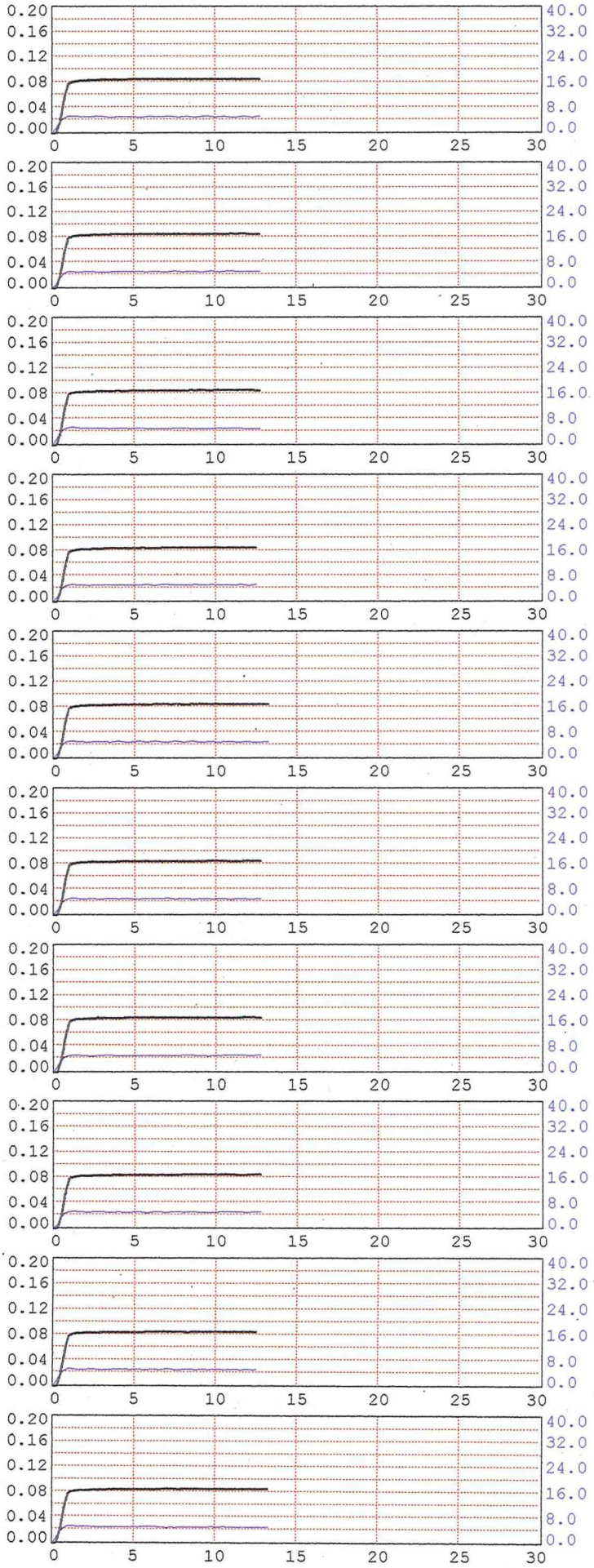
Date: 11/18/2011
Time: 10:23:16

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-37-080A1
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	10:24
CALIBRATION CHECK	PASSED	10:24
SIMULATOR VAPOR 33.9°C	INTERFERENCE	10:24
SIMULATOR VAPOR 34.0°C	INTERFERENCE	10:25
SIMULATOR VAPOR 34.0°C	INTERFERENCE	10:26
SIMULATOR VAPOR 34.0°C	INTERFERENCE	10:27
SIMULATOR VAPOR 34.0°C	INTERFERENCE	10:28
SIMULATOR VAPOR 33.9°C	INTERFERENCE	10:29
SIMULATOR VAPOR 33.9°C	INTERFERENCE	10:30
SIMULATOR VAPOR 34.0°C	INTERFERENCE	10:32
SIMULATOR VAPOR 33.9°C	INTERFERENCE	10:33
SIMULATOR VAPOR 34.0°C	INTERFERENCE	10:34
BLANK TEST	0.000	10:35

100%
0.01 Acetone
0.082 E+04
KLK
11-18-11



DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Installation Date:
Test Date: 11/21/2011
Test Time: 10:56:30

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

TEMPERATURES

Sample Chamber = 49.4°C
Breath Tube = 48.1°C
Digital Sim = 33.9°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 539 Hz

PUMP INFO
Flow Rate = 6.472 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0667	0.0685
MIN(V)	0.0654	0.0673

FILTER INFO
Filter 1 0.068 Zero = true
Filter 2 0.440 Zero = true
Filter 3 1.092 Zero = true

CALIBRATION CHECK
Xq = 0.087 0.80%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

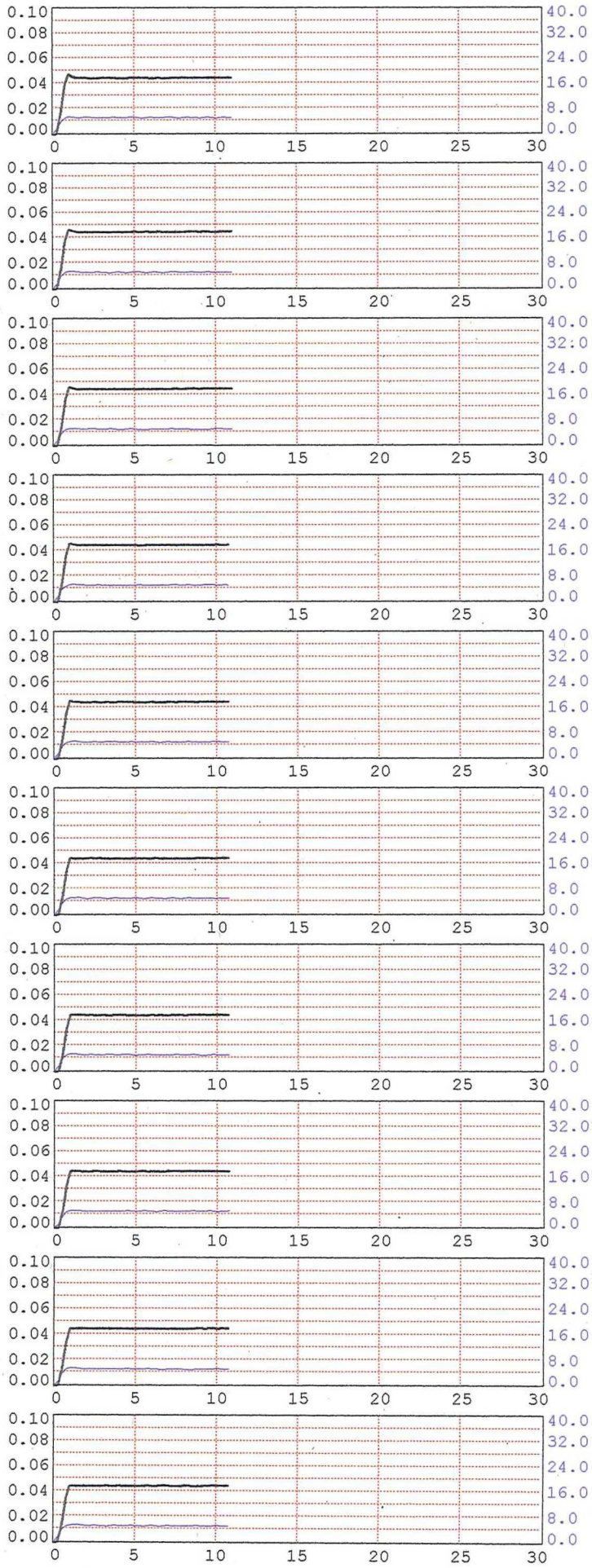
Date: 11/21/2011
Time: 10:59:05

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-26-040A1
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	10:59
CALIBRATION CHECK	PASSED	11:00
SIMULATOR VAPOR 33.8°C	INTERFERENCE	11:00
SIMULATOR VAPOR 33.8°C	INTERFERENCE	11:01
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:02
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:03
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:04
SIMULATOR VAPOR 34.0°C	INTERFERENCE	11:05
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:06
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:07
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:08
SIMULATOR VAPOR 34.0°C	INTERFERENCE	11:09
BLANK TEST	0.000	11:10

100%
0.040 EtOH
0.010 Acetone
KLK
11-21-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

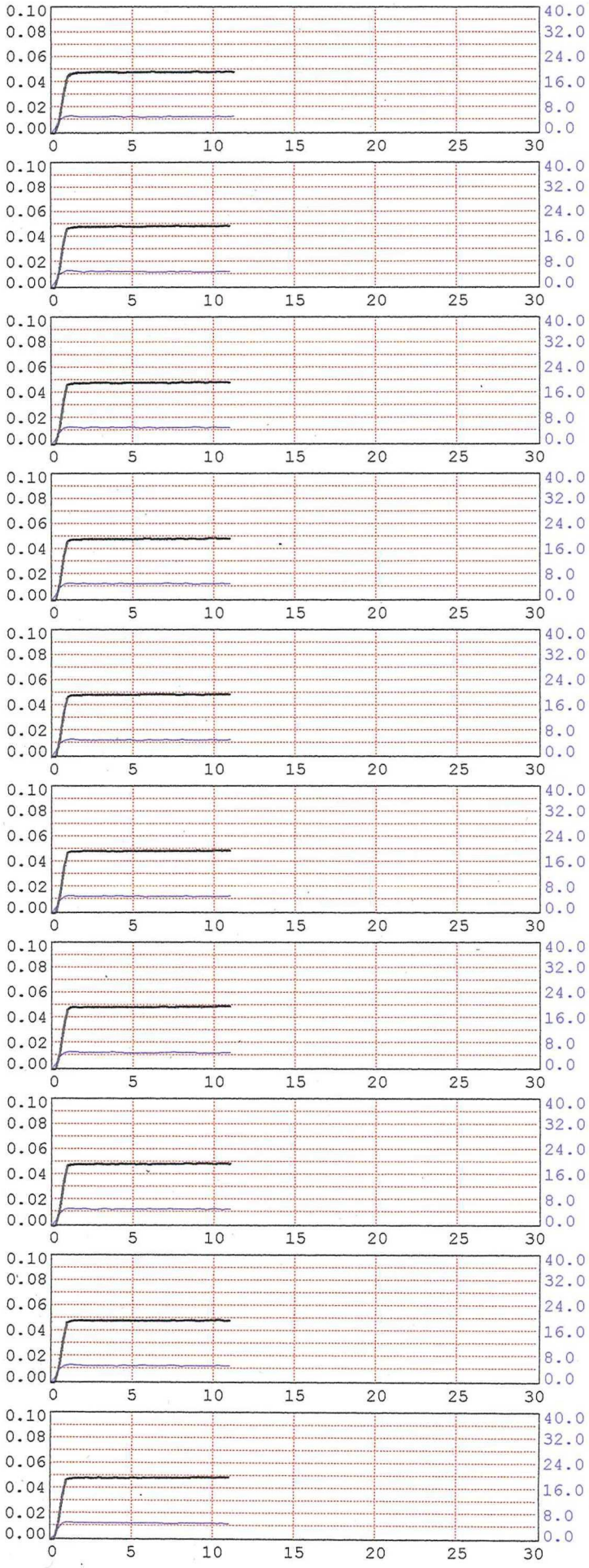
Date: 11/21/2011
Time: 11:24:34

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-26-040A2
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	11:25
CALIBRATION CHECK	PASSED	11:25
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:25
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:26
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:27
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:28
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:29
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:31
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:32
SIMULATOR VAPOR 34.0°C	INTERFERENCE	11:33
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:34
SIMULATOR VAPOR 33.9°C	INTERFERENCE	11:35
BLANK TEST	0.000	11:36

100%
0.02 Acetone
0.040 EtOH
[illegible]
11-21-11



DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Installation Date:
Test Date: 11/22/2011
Test Time: 10:00:26

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 = 0.0°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 539 Hz

PUMP INFO
Flow Rate = 6.466 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0545	0.0559
MIN(V)	0.0520	0.0545

FILTER INFO
Filter 1 0.055 Zero = true
Filter 2 0.428 Zero = true
Filter 3 1.067 Zero = true

CALIBRATION CHECK
Xq = 0.087 0.60%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

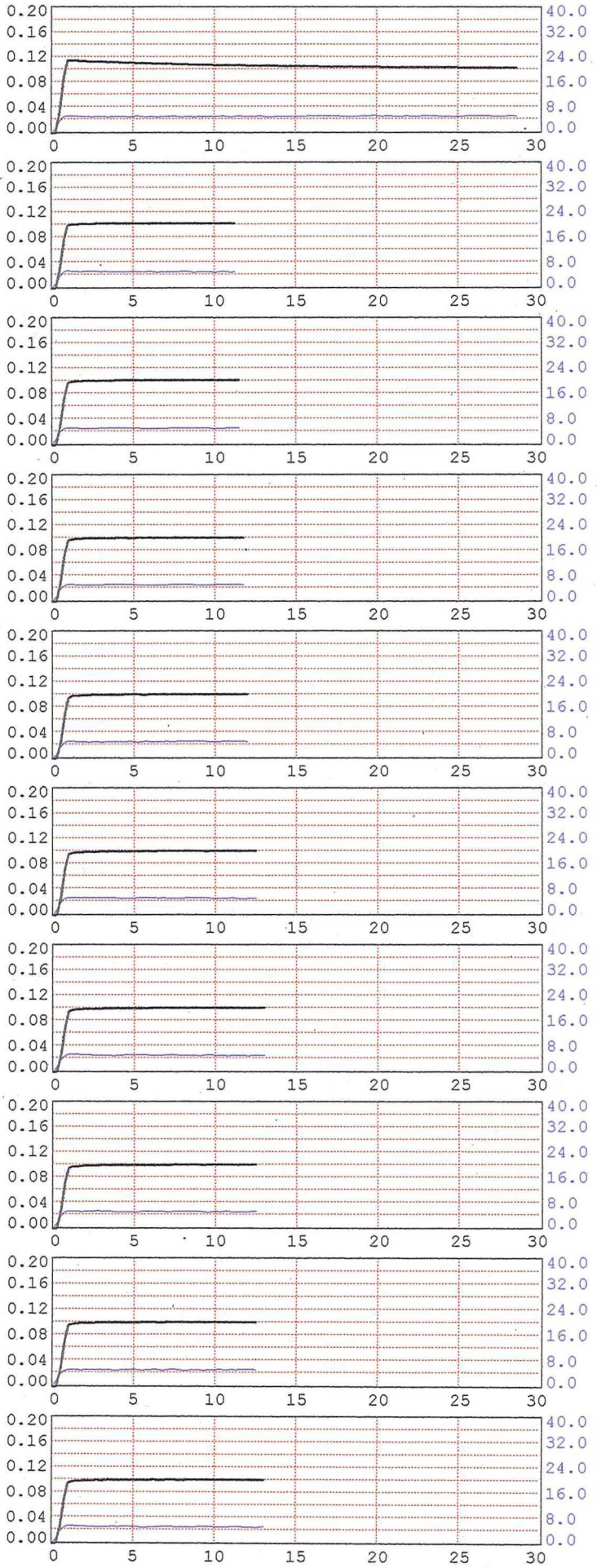
Date: 11/22/2011
Time: 10:04:13

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-21-080M
SOLUTION CONCENTRATION: 0.082

BLANK TEST	0.000	10:05
CALIBRATION CHECK	PASSED	10:05
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:05
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:06
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:07
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:08
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:10
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:11
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:12
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:13
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:14
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:15
BLANK TEST	0.000	10:16

0.04 MeOH
0.082 EtOH
KLK
100%
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

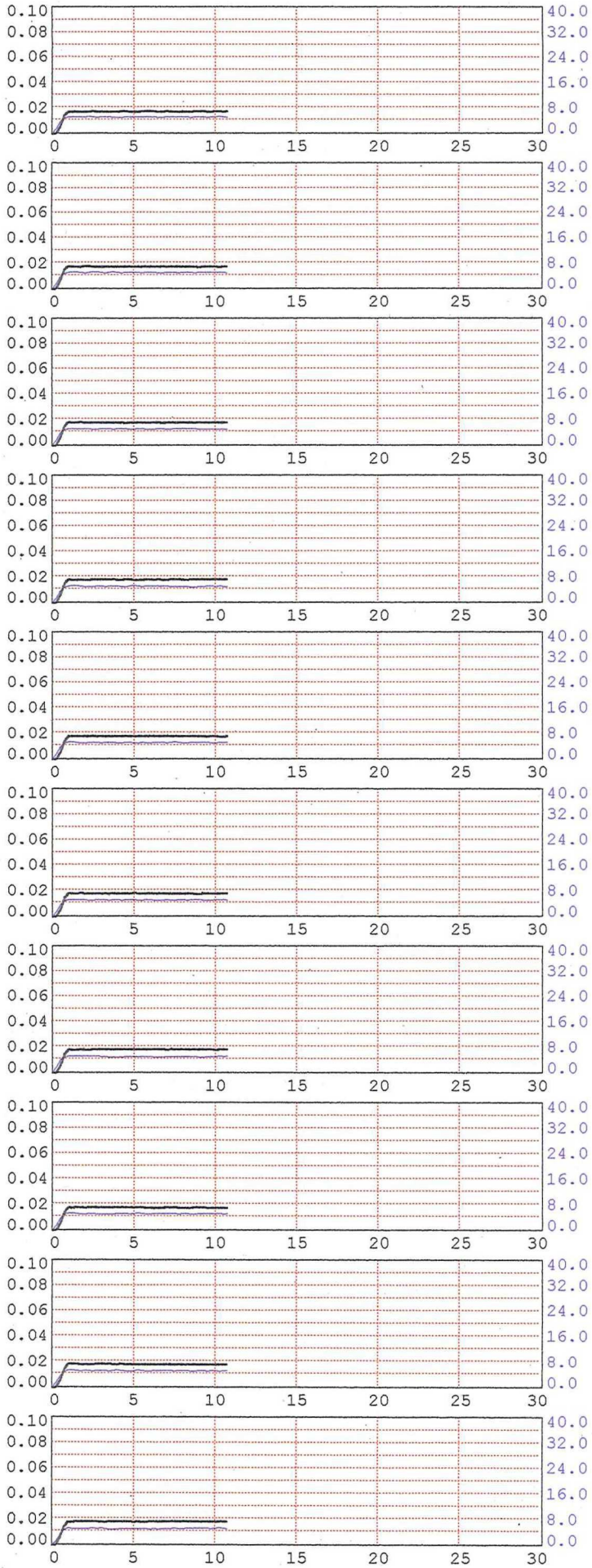
Date: 11/22/2011
Time: 10:22:14

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-28-040M
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	10:23
CALIBRATION CHECK	PASSED	10:23
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:23
SIMULATOR VAPOR 34.4°C	INTERFERENCE	10:24
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:25
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:26
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:27
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:28
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:29
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:30
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:31
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:32
BLANK TEST	0.000	10:33

100% 0.040 MeOH in H_2O KLK 11-22-11



DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Installation Date:
Test Date: 11/22/2011
Test Time: 10:52:32

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

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 47.2°C
Digital Sim = 34.2°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 538 Hz

PUMP INFO
Flow Rate = 6.456 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0612	0.0630
MIN(V)	0.0596	0.0616

FILTER INFO
Filter 1 0.062 Zero = true
Filter 2 0.434 Zero = true
Filter 3 1.079 Zero = true

CALIBRATION CHECK
Xq = 0.088 1.11%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

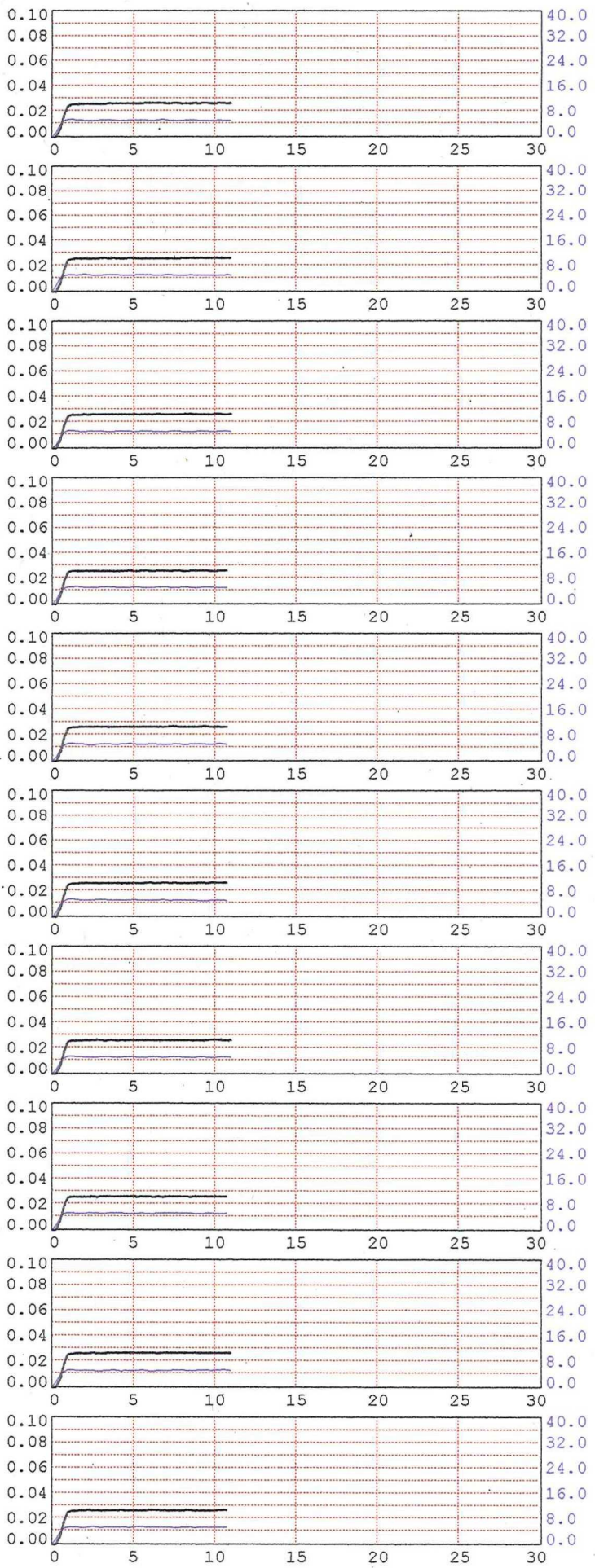
Date: 11/22/2011
Time: 10:55:04

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-27-040I
SOLUTION CONCENTRATION: 0.040

BLANK TEST	0.000	10:55
CALIBRATION CHECK	PASSED	10:56
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:56
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:57
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:58
SIMULATOR VAPOR 34.2°C	INTERFERENCE	10:59
SIMULATOR VAPOR 34.1°C	INTERFERENCE	11:00
SIMULATOR VAPOR 34.2°C	INTERFERENCE	11:01
SIMULATOR VAPOR 34.2°C	INTERFERENCE	11:02
SIMULATOR VAPOR 34.2°C	INTERFERENCE	11:03
SIMULATOR VAPOR 34.4°C	INTERFERENCE	11:04
SIMULATOR VAPOR 34.2°C	INTERFERENCE	11:05
BLANK TEST	0.000	11:06

100% 0.04 IPA in H_2O 11-22-11



DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Installation Date:
Test Date: 11/22/2011
Test Time: 13:12:13

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

TEMPERATURES

Sample Chamber = 49.2°C
Breath Tube = 48.1°C
Digital Sim = 34.2°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 538 Hz

PUMP INFO
Flow Rate = 6.422 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0638	0.0657
MIN(V)	0.0616	0.0640

FILTER INFO
Filter 1 0.065 Zero = true
Filter 2 0.436 Zero = true
Filter 3 1.082 Zero = true

CALIBRATION CHECK
Xq = 0.088 1.41%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

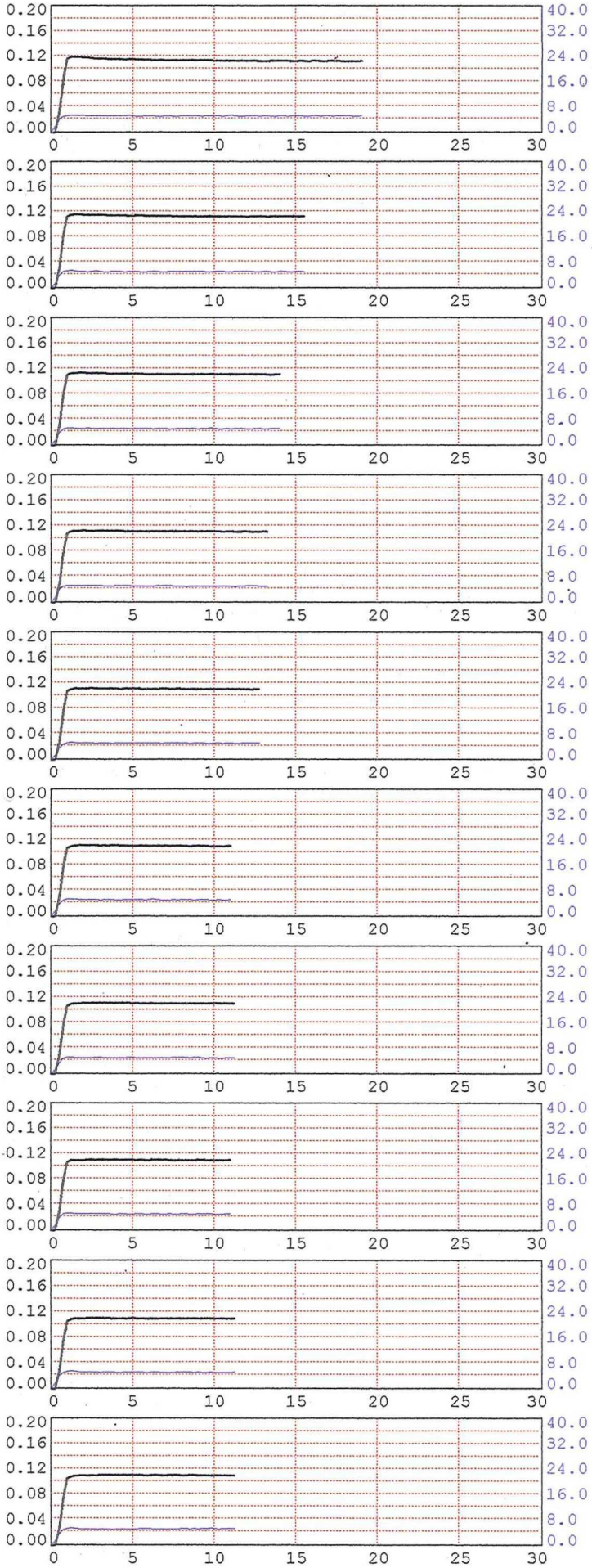
Date: 11/22/2011
Time: 13:15:42

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-21-080I
SOLUTION CONCENTRATION: 0.082

BLANK TEST	0.000	13:16
CALIBRATION CHECK	PASSED	13:16
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:17
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:18
SIMULATOR VAPOR 34.1°C	INTERFERENCE	13:19
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:20
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:21
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:22
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:23
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:24
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:25
SIMULATOR VAPOR 34.2°C	INTERFERENCE	13:26
BLANK TEST	0.000	13:27

100%
0.04 IPA
0.082 EtOH
KLK
11-22-11



SECTION 5

FINAL CALIBRATION CHECK TESTS

DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Installation Date:
Test Date: 12/05/2011
Test Time: 14:08:40

VERSIONS
DMT: 1.01
PIC: 2.06
Modem: 2.2
Questions: 2.0

TEMPERATURES

Sample Chamber = 49.1°C
Breath Tube = 47.6°C
Digital Sim = 34.4°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 537 Hz

PUMP INFO
Flow Rate = 6.412 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0439	0.0467
MIN(V)	0.0429	0.0447

FILTER INFO

Filter 1	0.045	Zero = true
Filter 2	0.421	Zero = true
Filter 3	1.065	Zero = true

CALIBRATION CHECK
Xq = 0.088 1.11%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 12/05/2011
Time: 14:11:10

SUPERVISOR NAME:
STEVEN R MERRILL

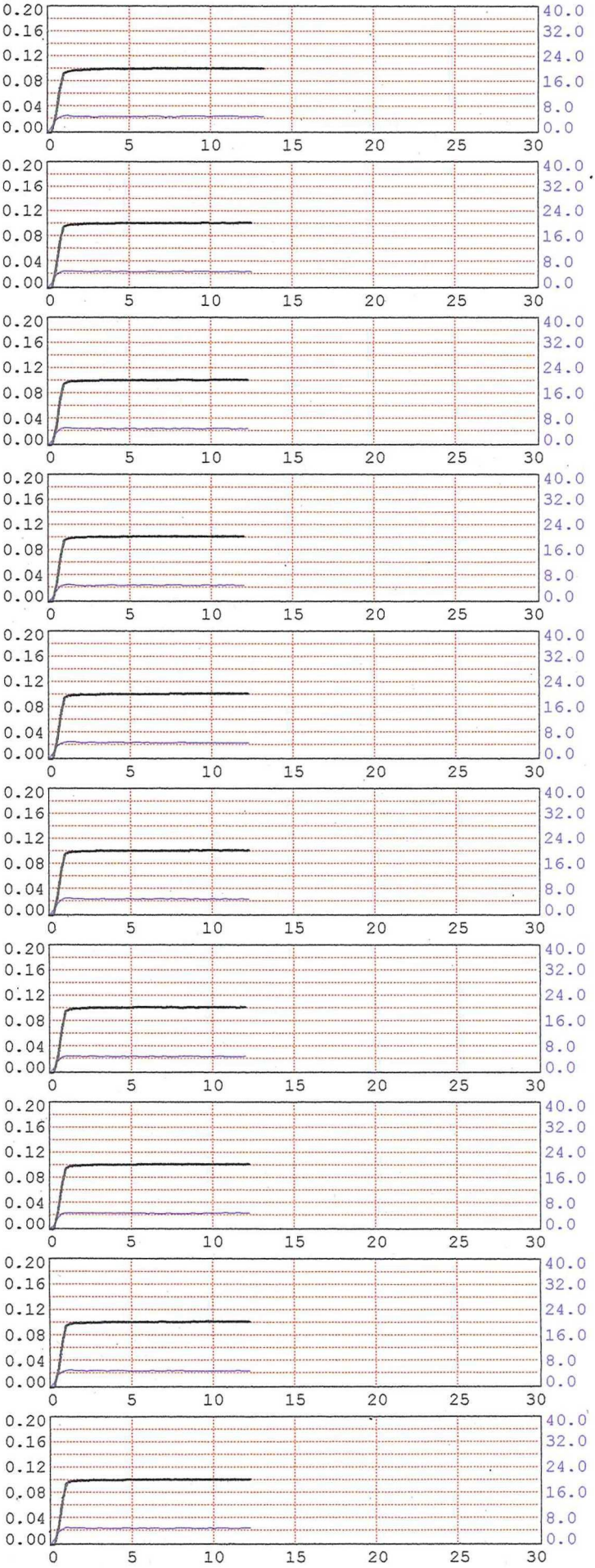
SOLUTION LOT #: 12-39-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	14:12
CALIBRATION CHECK	PASSED	14:12
SIMULATOR VAPOR 34.4°C	0.101	14:12
SIMULATOR VAPOR 34.2°C	0.102	14:13
SIMULATOR VAPOR 34.4°C	0.102	14:14
SIMULATOR VAPOR 34.2°C	0.102	14:15
SIMULATOR VAPOR 34.4°C	0.102	14:16
SIMULATOR VAPOR 34.2°C	0.101	14:17
SIMULATOR VAPOR 34.2°C	0.102	14:18
SIMULATOR VAPOR 34.4°C	0.102	14:19
SIMULATOR VAPOR 34.4°C	0.102	14:20
SIMULATOR VAPOR 34.2°C	0.101	14:22
BLANK TEST	0.000	14:22

Average = 0.101
Std Dev = 0.000

12-6-11

In-House Cal Check 12/05/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 12/05/2011
Time: 14:24:20

SUPERVISOR NAME:
STEVEN R MERRILL

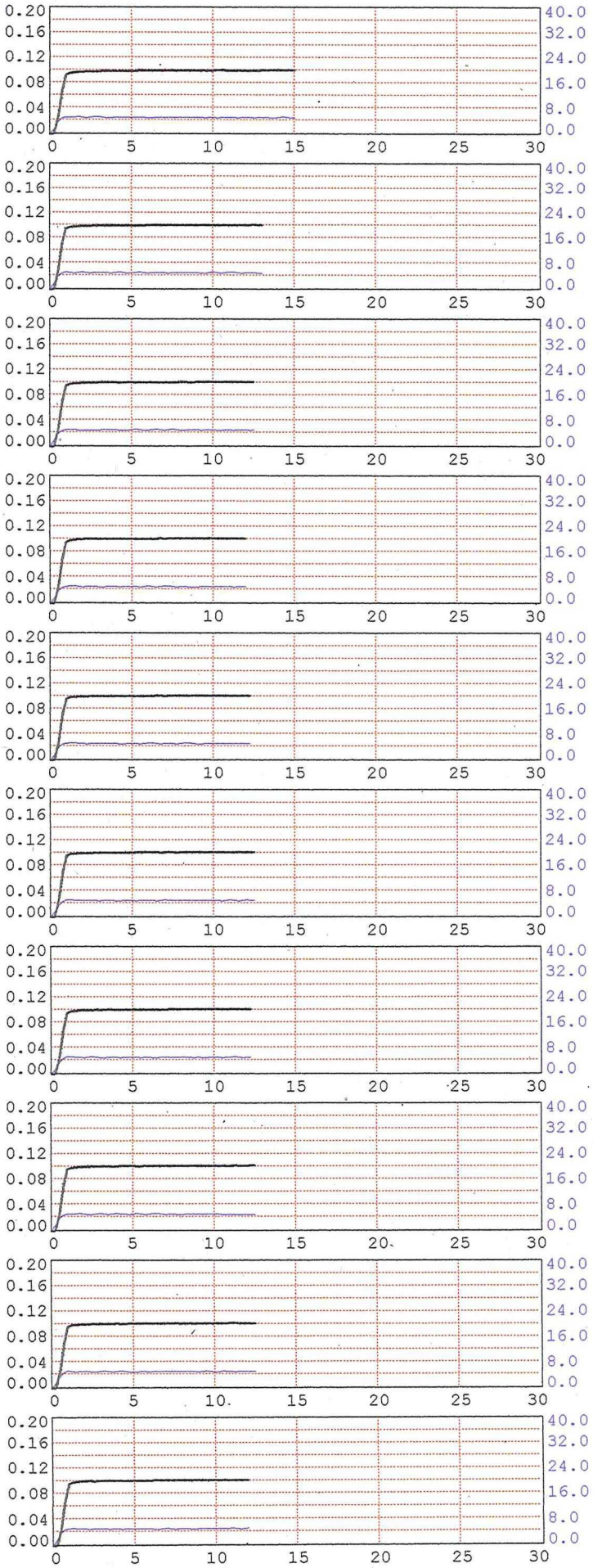
SOLUTION LOT #: GUTH 11050
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	14:25
CALIBRATION CHECK	PASSED	14:25
SIMULATOR VAPOR 34.4°C	0.100	14:25
SIMULATOR VAPOR 34.2°C	0.101	14:26
SIMULATOR VAPOR 34.4°C	0.101	14:27
SIMULATOR VAPOR 34.2°C	0.101	14:28
SIMULATOR VAPOR 34.4°C	0.101	14:29
SIMULATOR VAPOR 34.4°C	0.101	14:31
SIMULATOR VAPOR 34.2°C	0.101	14:32
SIMULATOR VAPOR 34.4°C	0.101	14:33
SIMULATOR VAPOR 34.4°C	0.101	14:34
SIMULATOR VAPOR 34.4°C	0.101	14:35
BLANK TEST	0.000	14:36

Average = 0.100
Std Dev = 0.000

2nd Source Cal Check 12/05/11

12-6-11



SECTION 6

ERROR REPORTS

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 07:44:27

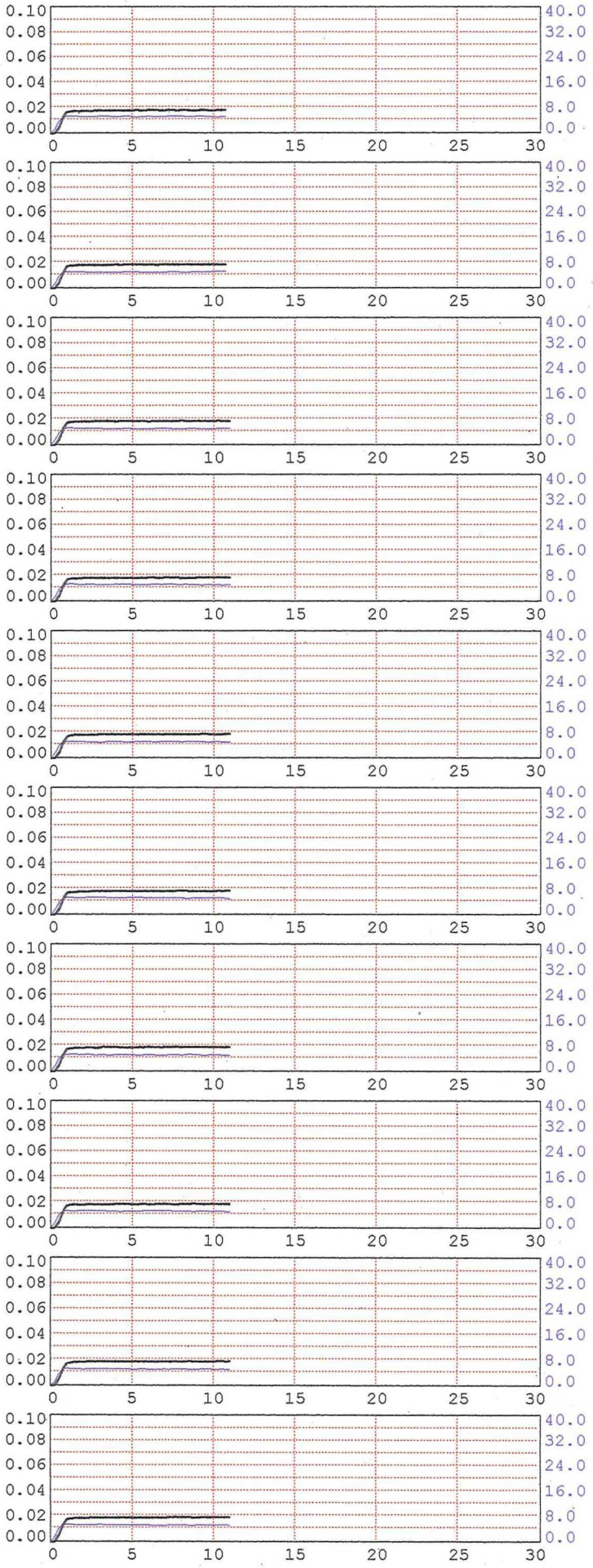
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-35-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	07:45
CALIBRATION CHECK	PASSED	07:45
SIMULATOR VAPOR 34.0°C	0.019	07:45
SIMULATOR VAPOR 34.0°C	0.019	07:46
SIMULATOR VAPOR 34.0°C	0.020	07:47
SIMULATOR VAPOR 33.9°C	0.019	07:48
SIMULATOR VAPOR 34.0°C	0.020	07:49
SIMULATOR VAPOR 34.0°C	0.019	07:50
SIMULATOR VAPOR 33.9°C	0.020	07:51
SIMULATOR VAPOR 34.0°C	0.020	07:52
SIMULATOR VAPOR 34.0°C	0.020	07:53
SIMULATOR VAPOR 33.9°C	0.020	07:54
BLANK TEST	0.000	07:55

Average = 0.019
Std Dev = 0.000

L-4
KLK
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 08:00:19

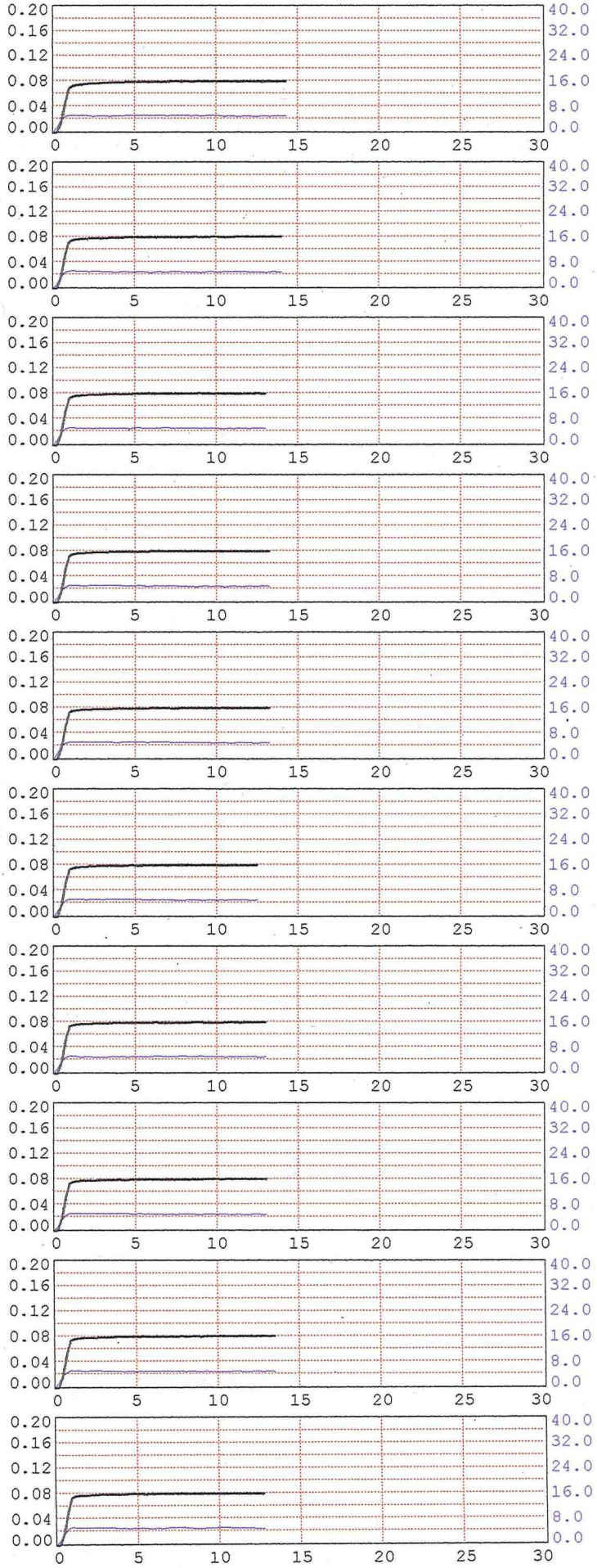
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-37-080
SOLUTION CONCENTRATION: 0.081

BLANK TEST	0.000	08:01
CALIBRATION CHECK	PASSED	08:01
SIMULATOR VAPOR 33.9°C	0.080	08:01
SIMULATOR VAPOR 34.0°C	0.080	08:02
SIMULATOR VAPOR 34.0°C	0.080	08:03
SIMULATOR VAPOR 33.9°C	0.080	08:04
SIMULATOR VAPOR 33.9°C	0.080	08:05
SIMULATOR VAPOR 34.0°C	0.080	08:07
SIMULATOR VAPOR 34.0°C	0.080	08:08
SIMULATOR VAPOR 34.0°C	0.080	08:09
SIMULATOR VAPOR 33.9°C	0.081	08:10
SIMULATOR VAPOR 33.9°C	0.080	08:11
BLANK TEST	0.000	08:12

Average = 0.080
Std Dev = 0.000

L-4
KLK
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 08:22:57

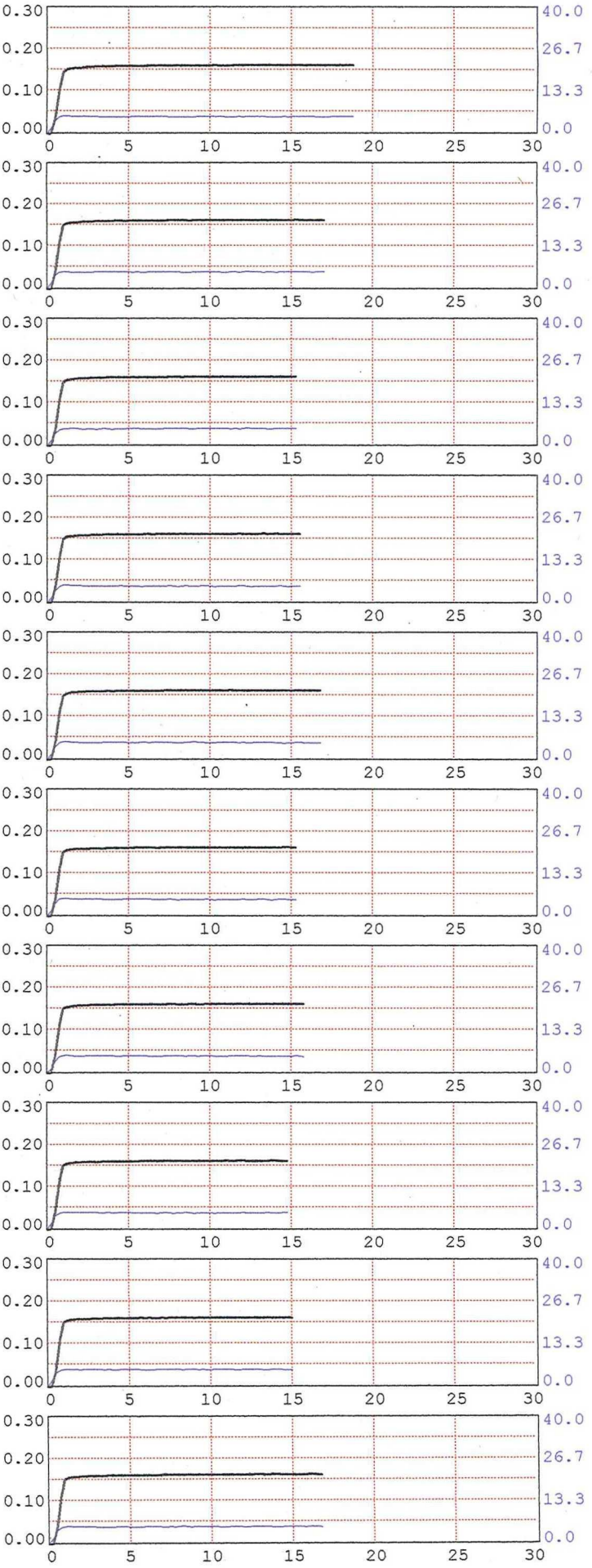
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-36-160
SOLUTION CONCENTRATION: 0.162

BLANK TEST	0.000	08:23
CALIBRATION CHECK	PASSED	08:23
SIMULATOR VAPOR 33.9°C	0.162	08:24
SIMULATOR VAPOR 34.0°C	0.161	08:25
SIMULATOR VAPOR 34.0°C	0.161	08:26
SIMULATOR VAPOR 33.9°C	0.162	08:27
SIMULATOR VAPOR 33.9°C	0.162	08:28
SIMULATOR VAPOR 34.0°C	0.162	08:30
SIMULATOR VAPOR 33.9°C	0.161	08:31
SIMULATOR VAPOR 33.9°C	0.162	08:32
SIMULATOR VAPOR 33.9°C	0.162	08:33
SIMULATOR VAPOR 33.9°C	0.162	08:34
BLANK TEST	0.000	08:35

Average = 0.161
Std Dev = 0.000

L.H
KLK
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 09:32:40

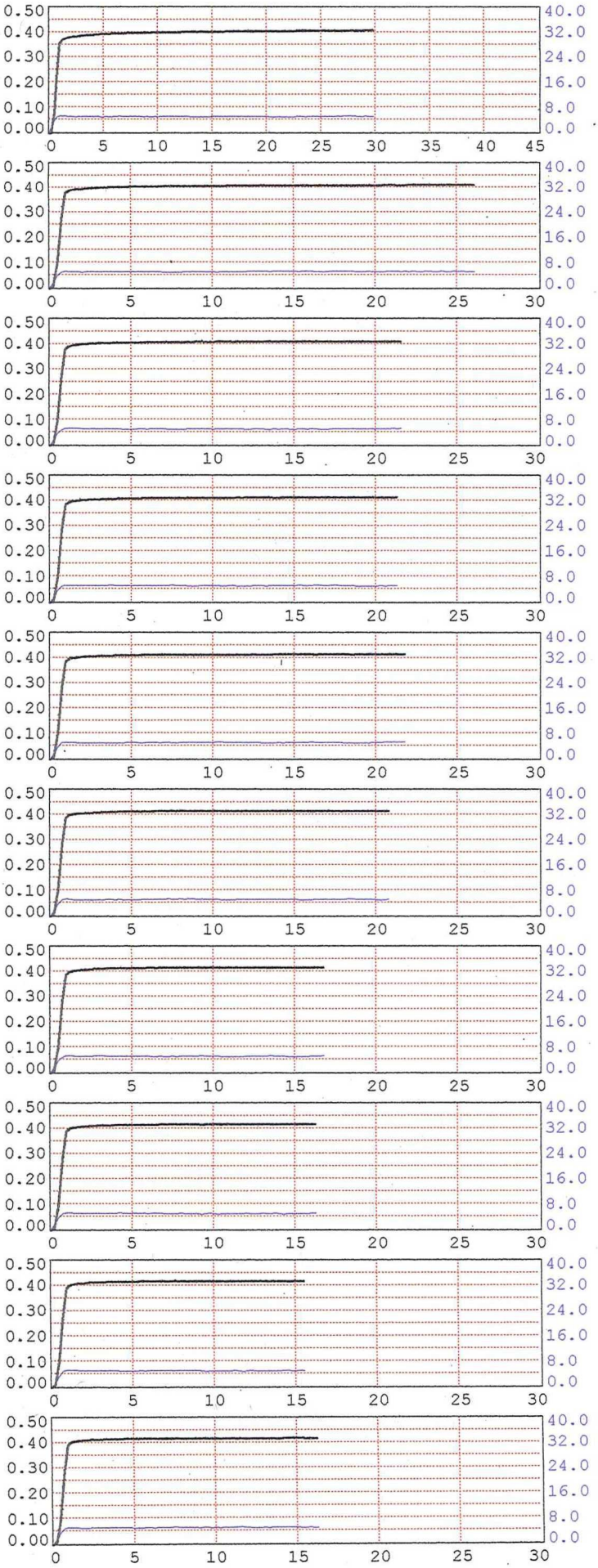
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-40-400
SOLUTION CONCENTRATION: 0.408

BLANK TEST	0.000	09:33
CALIBRATION CHECK	PASSED	09:33
SIMULATOR VAPOR 34.1°C	0.404	09:34
SIMULATOR VAPOR 33.9°C	0.407	09:35
SIMULATOR VAPOR 34.0°C	0.408	09:36
SIMULATOR VAPOR 34.0°C	0.409	09:38
SIMULATOR VAPOR 34.0°C	0.411	09:39
SIMULATOR VAPOR 33.9°C	0.412	09:40
SIMULATOR VAPOR 34.0°C	0.412	09:41
SIMULATOR VAPOR 34.0°C	0.413	09:42
SIMULATOR VAPOR 33.9°C	0.414	09:43
SIMULATOR VAPOR 33.9°C	0.414	09:45
BLANK TEST	0.000	09:45

Average = 0.410
Std Dev = 0.003

L-4
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 13:31:15

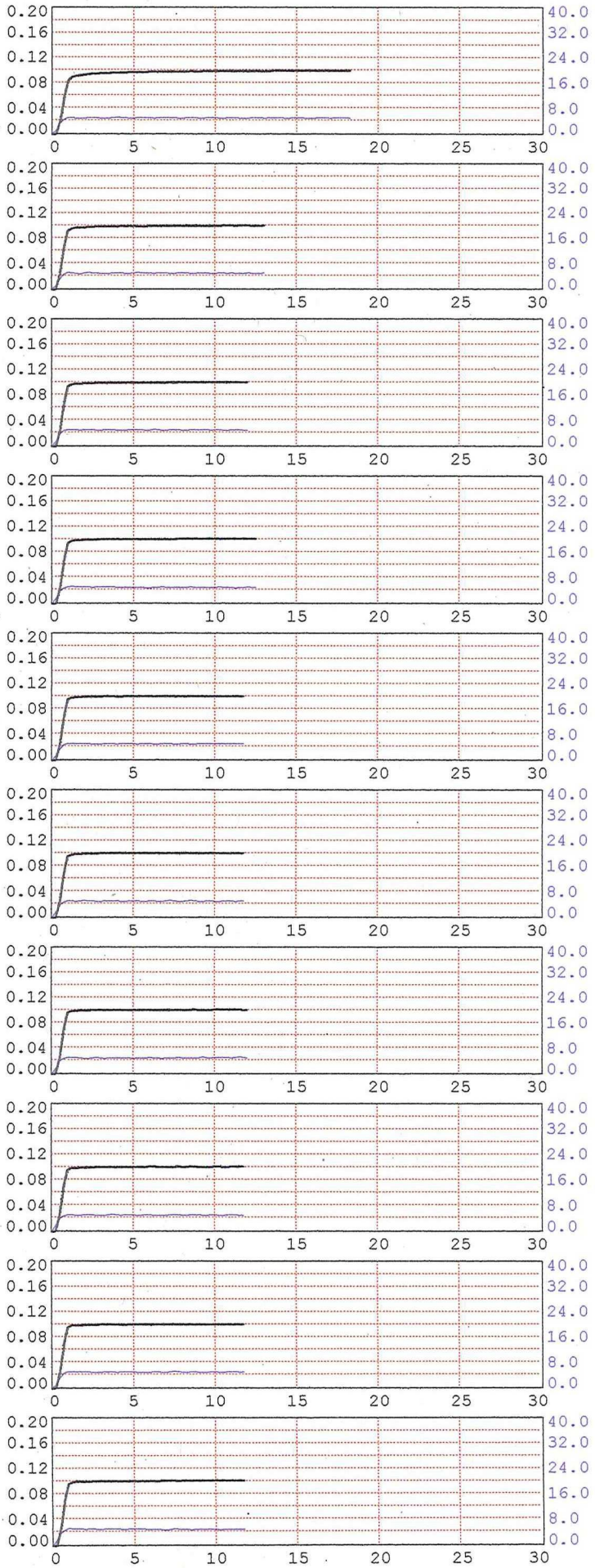
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: GUTH 11050
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	13:32
CALIBRATION CHECK	PASSED	13:32
SIMULATOR VAPOR 34.2°C	0.099	13:32
SIMULATOR VAPOR 34.2°C	0.099	13:33
SIMULATOR VAPOR 34.2°C	0.100	13:34
SIMULATOR VAPOR 34.2°C	0.101	13:35
SIMULATOR VAPOR 34.2°C	0.100	13:36
SIMULATOR VAPOR 34.2°C	0.100	13:37
SIMULATOR VAPOR 34.2°C	0.101	13:39
SIMULATOR VAPOR 34.2°C	0.101	13:40
SIMULATOR VAPOR 34.2°C	0.100	13:41
SIMULATOR VAPOR 34.2°C	0.101	13:42
BLANK TEST	0.000	13:42

Average = 0.100
Std Dev = 0.000

2nd source
Cal check
KLK
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

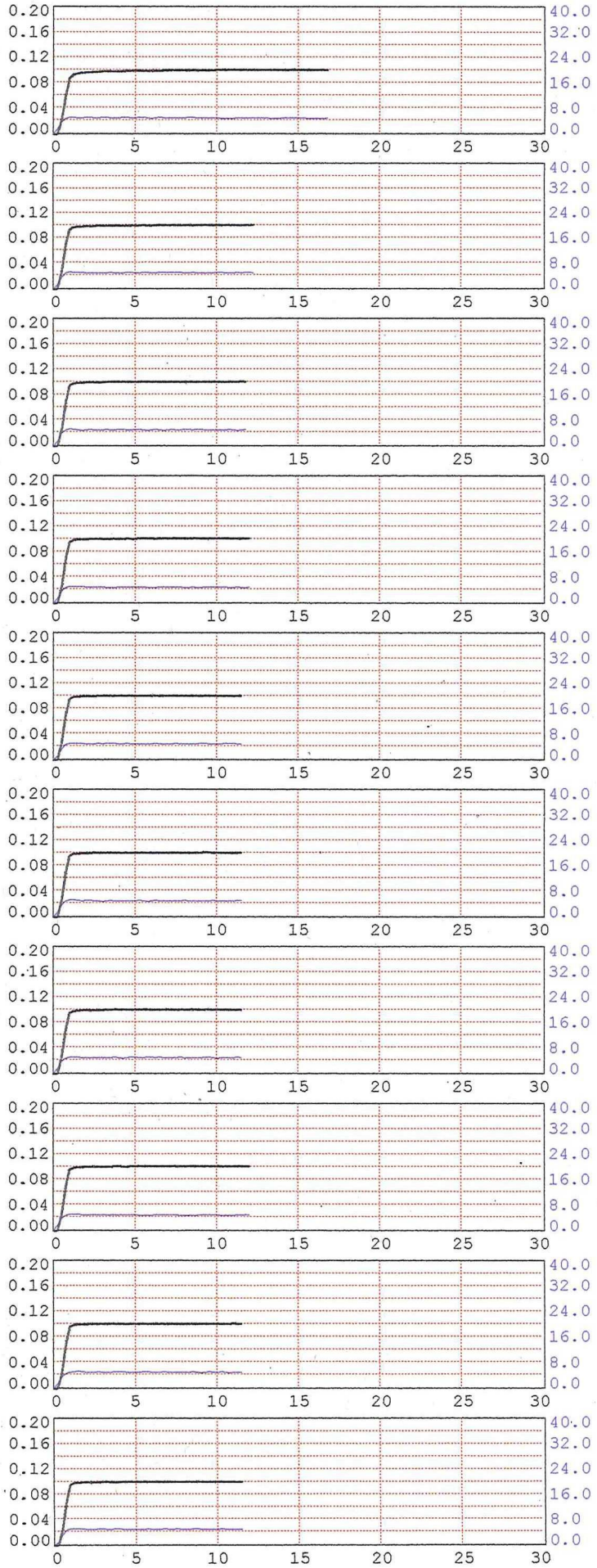
DataMater DMT: 100133

Date: 11/22/2011
Time: 13:45:18

SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-32-100
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	13:46
CALIBRATION CHECK	PASSED	13:46
SIMULATOR VAPOR 34.2°C	0.101	13:46
SIMULATOR VAPOR 34.2°C	0.100	13:47
SIMULATOR VAPOR 34.2°C	0.100	13:48
SIMULATOR VAPOR 34.2°C	0.101	13:49
SIMULATOR VAPOR 34.2°C	0.100	13:50
SIMULATOR VAPOR 34.2°C	0.101	13:51
SIMULATOR VAPOR 34.2°C	0.101	13:52
SIMULATOR VAPOR 34.1°C	0.101	13:54
SIMULATOR VAPOR 34.2°C	0.101	13:55
SIMULATOR VAPOR 34.2°C	0.100	13:56
BLANK TEST	0.000	13:56

Average = 0.100
Std Dev = 0.000

Inhouse
Calcheck
KLK
11-22-11