Shelburne PD 100133

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SECTION 1

RESULTS

Packing List

From: National Patent Analytical Systems Inc.

2090 Harrington Mem. Rd., Mansfield, Ohio 44903

Cust No. VT1678J Ord Date 11/1/11

Sales Order No. 44939

Ship Date 11/8/11

Packing List No. 69194

Cust Purch Ord No. KIRK KIMBALL

Ship To:

Vermont Dept of Health

195 Colchester Avenue

Burlington Vt 05401

Bill To:

Vermont Dept of Health

P O Box 70

Burlington Vt 05402

25.00

Freight

Attn:

Ship Via FedEx

Comments Service for Instrument Serial Number 100133

Inv Part No	Quantity Ordered	This Shipment	Back Ordered	Total Ship To Date	Description	Customer Part No.	Drawing Part No. / Rev
9DMT	1.0	1		1.0	DATAMASTER DMT SERVICE RETURN		
S/N 100133						None Given	No Draw # / NONE
Serial Nos.	100133						

Opened 11/16/11 SK

National Patent
Analytical Systems, Inc.

On this date 11/1/11, NPAS received instrument # #100133.

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

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

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

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

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

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

Print Name of Evaluator: Michael J. Barbely Jr.

Signature of Evaluator and Date: Michael J. Barbely Jr. 11/3/11

Print Name of Reviewer: DAVID RADOMSKI

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

Opened 11/16/11

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

DataMaster DMT Serial Number 100133

Power Up	CAL Factor	In-House & 2nd Source Calibration Check			Simulator Assignment	Certification	0.01% Acet. in 0.08% EtOH	0.04% MeOH in H_2O	0.04% IPA in H_2O	0.01% Acet. in 0.04% EtOH	0.02% Acet. in 0.04% EtOH	0.04% MeOH in 0.08% EtOH	0.04% IPA in 0.08% EtOH
		NIST Temp. °C	Lot. #	Result (g/210L)									
11-18-11	0.981265 11-18-11	34.1	12-32-100	0.101 11-18-11	11-28-11 G9407	11-18-11	100% 11-18-11	100% 11-22-11	100% 11-22-11	100% 11-21-11	100% 11-21-11	100% 11-22-11	100% 11-22-11 12/05/11
		34.1	GUTH 11050	0.101 11-18-11									

Linearity Test #1	Linearity Test #2	Linearity Test #3	Linearity Test #4	Linearity Test #5	Data Download	In-House & 2nd Source Calibration Check		
						NIST Temp.°C	Lot. #	Result (g/210L)
11-18-11	11-21-11	11/21/11	11-22-11 12-5-11	11-22-11	11-23-11 12/05/11	34.1	GUTH 11050	0.100 11-22-11 12/05/11
				12/05/11		34.1	12-39-100 12/05/11	0.100 11-22-11 12/05/11

Linearity 4 12/05/11 12-5-11

In-house & 2nd Source Cal. Check

NIST Temp °C	Lot #	Result (g/210L)
34.1°C	GUTH 11050	0.100 12/05/11 12/6/11
34.1°C	12-39-100	0.101 12/05/11 12-6-11

Notes: Power-Up started 11/16/11

Calibration Solution NIST Temp = 34.0 11-18-11

Calibration ~~Solution~~ H_2O NIST Temp = 34.0°C 11-18-11

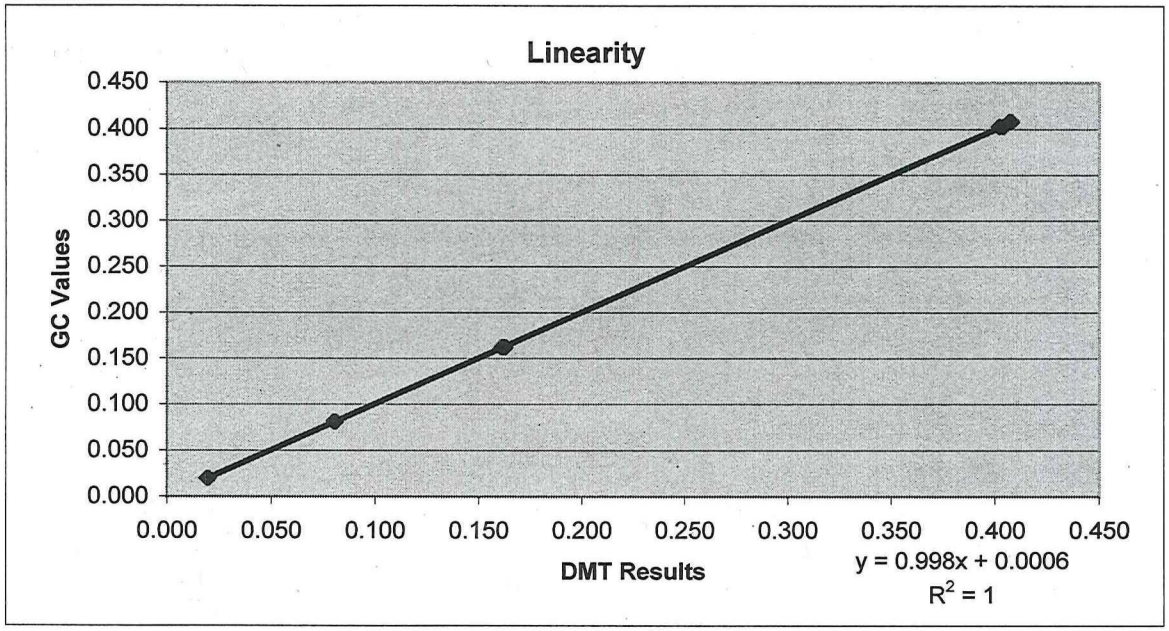
Linearity 4 on 11/22 had 0.003 SD for 400 STD redo Linearity and cal checks 12-5-11

Redid download 12-6-11

Analyst: 12-7-11 **Reviewer:** 12/8/11 **Reviewer:** 12/09/11

DataMaster DMT Serial Number 100133

Operator	Date	GC Value	DMT Average	Std Dev	% Recovery
KLK	11/18/2011	0.020	0.020	0.000	100
KLK	11/18/2011	0.081	0.080	0.000	98
KLK	11/18/2011	0.162	0.161	0.000	99
KLK	11/18/2011	0.403	0.404	0.001	100
KLK	11/21/2011	0.020	0.019	0.000	95
KLK	11/21/2011	0.081	0.080	0.000	98
KLK	11/21/2011	0.162	0.163	0.000	100
KLK	11/21/2011	0.403	0.404	0.000	100
SRM	11/21/2011	0.020	0.019	0.000	95
SRM	11/21/2011	0.081	0.081	0.000	100
SRM	11/21/2011	0.162	0.162	0.000	100
SRM	11/21/2011	0.403	0.402	0.000	99
KLK	12/5/2011	0.020	0.019	0.000	95
KLK	12/5/2011	0.081	0.081	0.000	100
KLK	12/5/2011	0.162	0.163	0.000	100
KLK	12/5/2011	0.408	0.408	0.000	100
KLK	11/22/2011	0.020	0.019	0.000	95
KLK	11/22/2011	0.081	0.080	0.000	98
KLK	11/22/2011	0.162	0.163	0.000	100
KLK	11/22/2011	0.408	0.407	0.001	99
			Average	0.0001	99
			Std Dev	0.0003	
			Range		95-100



Log On Record History

Test Date	Test Time	Name
12/06/2011	07:33:20	Kirk Kimball
12/05/2011	14:06:14	Steven Merrill
12/05/2011	12:54:20	Kirk Kimball
12/05/2011	12:20:03	Kirk Kimball
11/23/2011	09:23:39	Kirk Kimball
11/22/2011	12:31:02	Kirk Kimball
11/22/2011	10:47:45	Kirk Kimball
11/22/2011	09:52:19	Kirk Kimball
11/22/2011	09:22:03	Kirk Kimball
11/22/2011	07:43:19	Kirk Kimball
11/22/2011	06:59:40	Kirk Kimball
11/21/2011	15:39:05	Steven Merrill
11/21/2011	14:56:30	Steven Merrill
11/21/2011	09:57:48	Kirk Kimball
11/21/2011	08:59:57	Kirk Kimball
11/21/2011	07:18:53	Kirk Kimball
11/18/2011	09:33:46	Kirk Kimball
11/18/2011	08:09:21	Kirk Kimball
11/18/2011	07:11:48	Kirk Kimball
11/17/2011	14:09:24	Steven Merrill
11/17/2011	11:24:04	Steven Merrill
11/17/2011	08:28:34	Steven Merrill

SECTION 2

POWER UP TESTS

DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date:
Certification Date:
Installation Date:
Test Date: 11/18/2011
Test Time: 07:21:29

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

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube = 46.6°C
Digital Sim = 0.0°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 536 Hz

PUMP INFO
Flow Rate = 6.336 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0008	0.0041
MIN(V)	-0.0008	0.0022

FILTER INFO
Filter 1 0.002 Zero = true
Filter 2 0.379 Zero = true
Filter 3 0.998 Zero = true

CALIBRATION CHECK
Xq = 0.086 1.00%

CALIBRATION REPORT

DataMaster DMT: 100133
Calibration Date: 11/18/2011
Calibrated by: KIRK L KIMBALL
Lot: 12-33-100

Ca = 0.100				
CAL = 0.981265	0.800	<=	CAL	< 1.200
b1 = 0.000	0.000	<=	b1	< 0.004
b2 = 0.004	0.002	<=	b2	< 0.010
b3 = 0.000	0.000	<=	b3	< 0.004
Xq = 0.087	0.050	<=	Xq	< 0.200
a21 = 1.200847	1.050	<=	a21	< 1.300
a31 = 0.475119	0.300	<=	a31	< 0.800

Performed by KLK Date 11/18/2011

DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date:
Installation Date:
Test Date: 11/18/2011
Test Time: 09:40:09

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

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 46.6°C
Digital Sim = 0.0°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 536 Hz

PUMP INFO
Flow Rate = 6.453 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0102	0.0128
MIN(V)	0.0083	0.0112

FILTER INFO

Filter 1	0.012	Zero = true
Filter 2	0.388	Zero = true
Filter 3	1.014	Zero = true

CALIBRATION CHECK
Xq = 0.086 0.70%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/18/2011
Time: 09:44:46

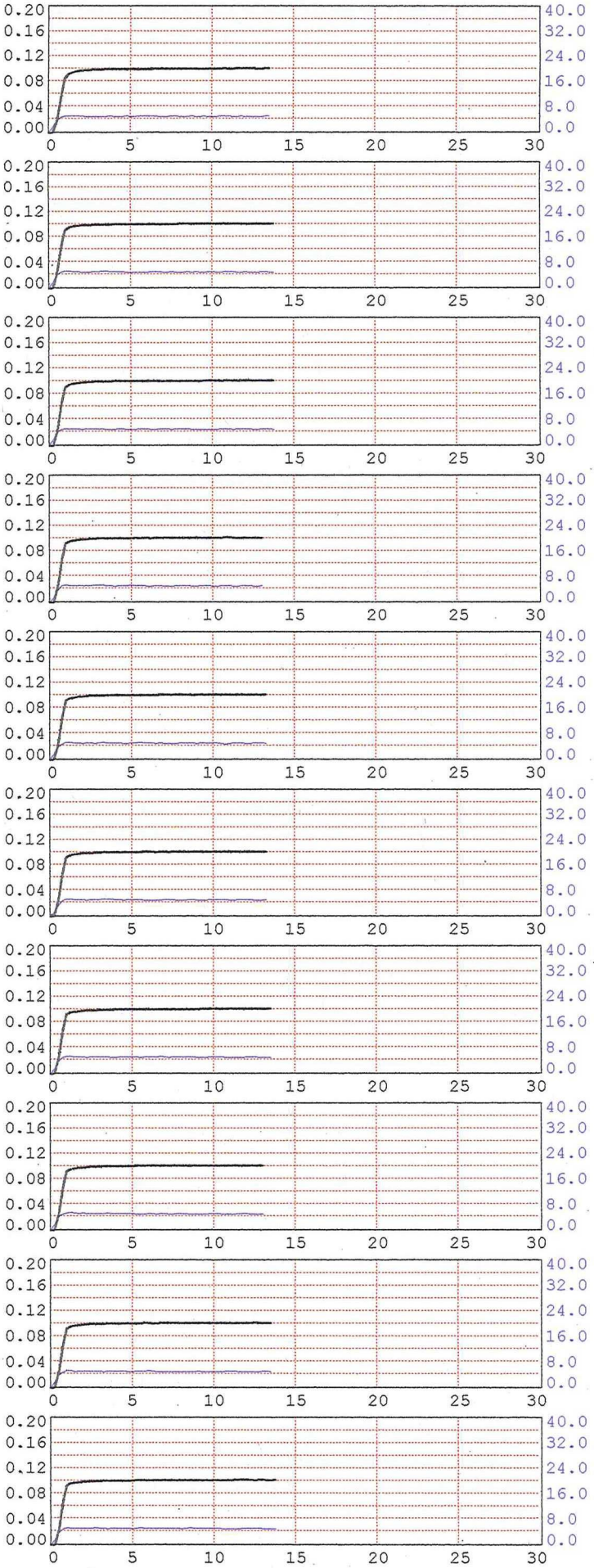
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	09:45
CALIBRATION CHECK	PASSED	09:45
SIMULATOR VAPOR 34.4°C	0.101	09:46
SIMULATOR VAPOR 34.4°C	0.101	09:47
SIMULATOR VAPOR 34.4°C	0.101	09:48
SIMULATOR VAPOR 34.4°C	0.101	09:49
SIMULATOR VAPOR 34.4°C	0.101	09:50
SIMULATOR VAPOR 34.4°C	0.101	09:51
SIMULATOR VAPOR 34.4°C	0.101	09:52
SIMULATOR VAPOR 34.4°C	0.101	09:53
SIMULATOR VAPOR 34.4°C	0.101	09:54
SIMULATOR VAPOR 34.4°C	0.102	09:55
BLANK TEST	0.000	09:56

Average = 0.101
Std Dev = 0.000

In house cal check
KLK
11-18-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/18/2011
Time: 09:59:33

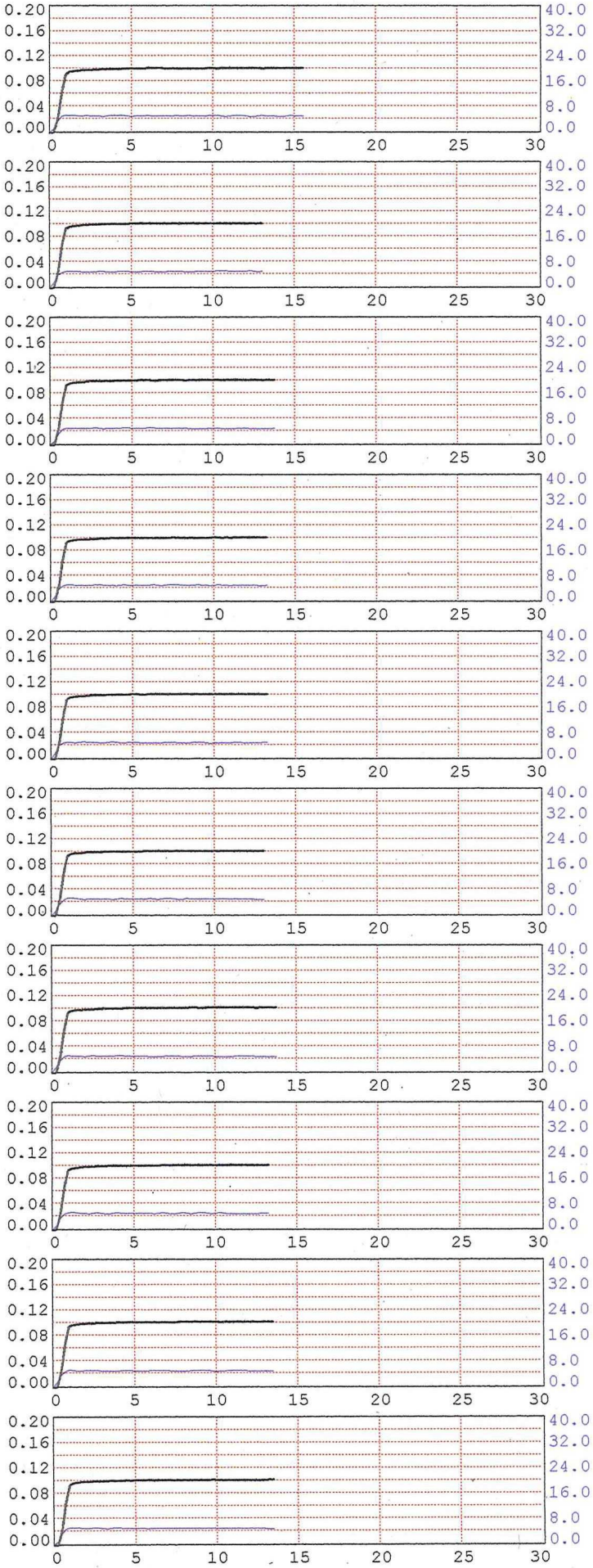
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: GUTH 11050
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	10:00
CALIBRATION CHECK	PASSED	10:00
SIMULATOR VAPOR 34.1°C	0.101	10:00
SIMULATOR VAPOR 34.0°C	0.101	10:01
SIMULATOR VAPOR 34.0°C	0.101	10:03
SIMULATOR VAPOR 34.0°C	0.101	10:04
SIMULATOR VAPOR 34.1°C	0.101	10:05
SIMULATOR VAPOR 33.9°C	0.101	10:06
SIMULATOR VAPOR 34.0°C	0.102	10:07
SIMULATOR VAPOR 34.0°C	0.101	10:08
SIMULATOR VAPOR 33.9°C	0.102	10:09
SIMULATOR VAPOR 34.0°C	0.102	10:10
BLANK TEST	0.000	10:11

Average = 0.101
Std Dev = 0.000

2nd Source Cal. Check
KLK
11-18-11



DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date:
Installation Date:
Test Date: 11/18/2011
Test Time: 10:39:30

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

TEMPERATURES

Sample Chamber = 48.7°C
Breath Tube = 47.7°C
Digital Sim = 34.0°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 536 Hz

PUMP INFO
Flow Rate = 6.433 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0372	0.0386
MIN(V)	0.0354	0.0368

FILTER INFO
Filter 1 0.037 Zero = true
Filter 2 0.411 Zero = true
Filter 3 1.056 Zero = true

CALIBRATION CHECK
Xq = 0.087 0.00%

CERTIFICATION REPORT

DataMaster DMT: 100133
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Certified by: KIRK L KIMBALL

Diagnostic Results

```
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    = 0.0°C

SETTINGS
Lamp Voltage   = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage   = 81 V
Chopper Freq   = 536 Hz

PUMP INFO
Flow Rate = 6.418 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   0.0368    0.0374
MIN(V)   0.0346    0.0360

FILTER INFO
Filter 1   0.036  Zero = true
Filter 2   0.411  Zero = true
Filter 3   1.054  Zero = true

CALIBRATION CHECK
Xq  = 0.087  0.10%
```

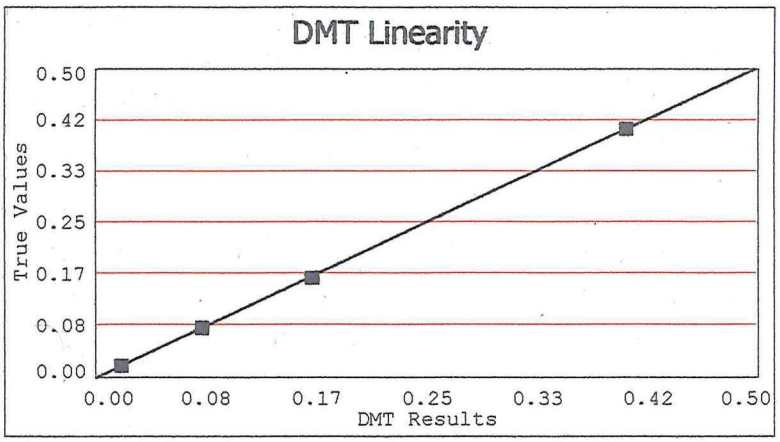
Options

```
OPTIONS
Units
   Alcohol................... g/210L
Simulator
   Tolerance Check........... yes
   Standard Type............ wet
   Nominal................... 0.100
   Digital Simulator........ Guth34CNP
Subject
   Ask Questions............ yes
   Number of Tests.......... 2
   Alcohol Display.......... yes
   Volume Display........... yes
   Query Refusal............ yes
   Copies................... 3
   Simulator Before......... yes
   Simulator Between........ yes
   Simulator After.......... no
   Observation Time......... 0
Supervisor
   Number of Tests.......... 10
Calibration
   Standard Type............ wet
   Nominal................... 0.100
   Nominal(Dry Gas)......... 0.100
   Number of Tests.......... 1
Printer
   Printer On............... yes
Software Configuration
   Data Collection.......... yes
```

Linearity Check Results

True Value	Reported Average	Std Dev
0.020 g/210L Lot # 12-31-020	0.019 g/210L	0.0000
0.081 g/210L Lot # 12-37-080	0.080 g/210L	0.0000
0.162 g/210L Lot # 12-36-160	0.163 g/210L	0.0000
0.403 g/210L Lot # 12-34-400	0.400 g/210L	0.0000

$R^2 = 0.9999$



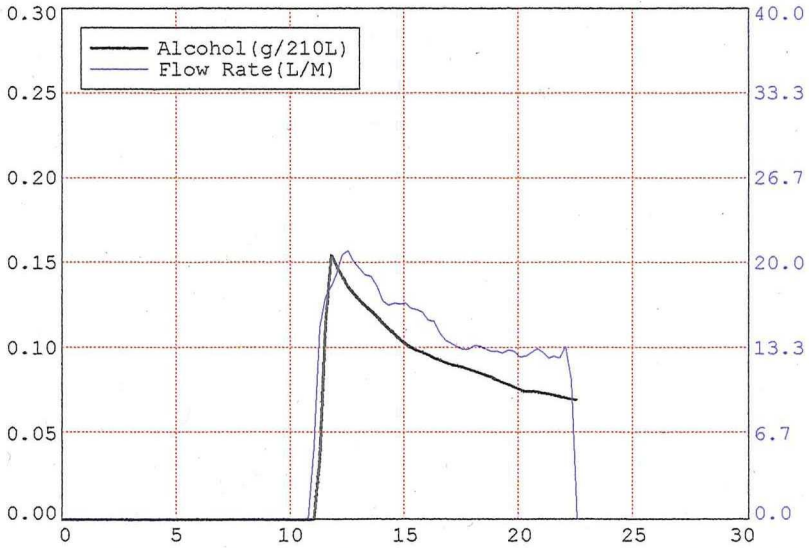
Acetone Interference Test

Lot # 12-37-080A1

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

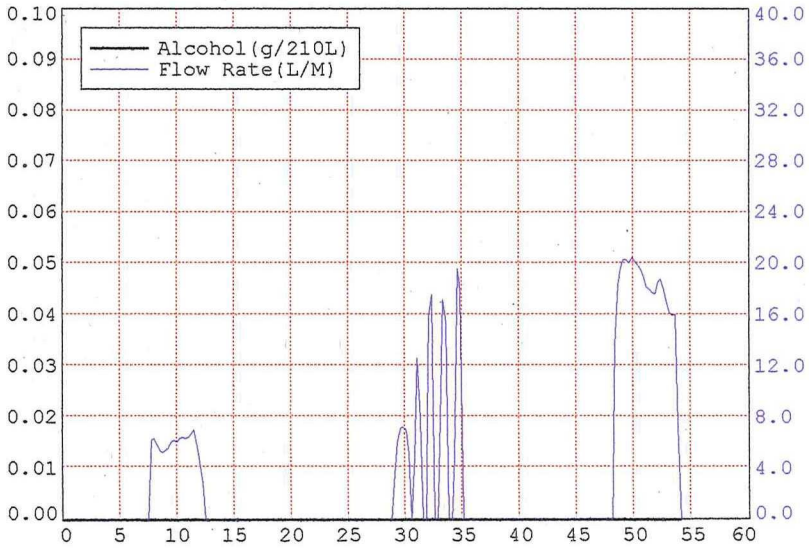


RF Detection Test

Passed

Sample Acceptance Test

Passed



CERTIFICATION PASSED

Performed by RKR Date 11/18/2011

Reviewed by Date 11/18/11

SECTION 3

LINEARITY TESTS

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/18/2011
Time: 14:09:46

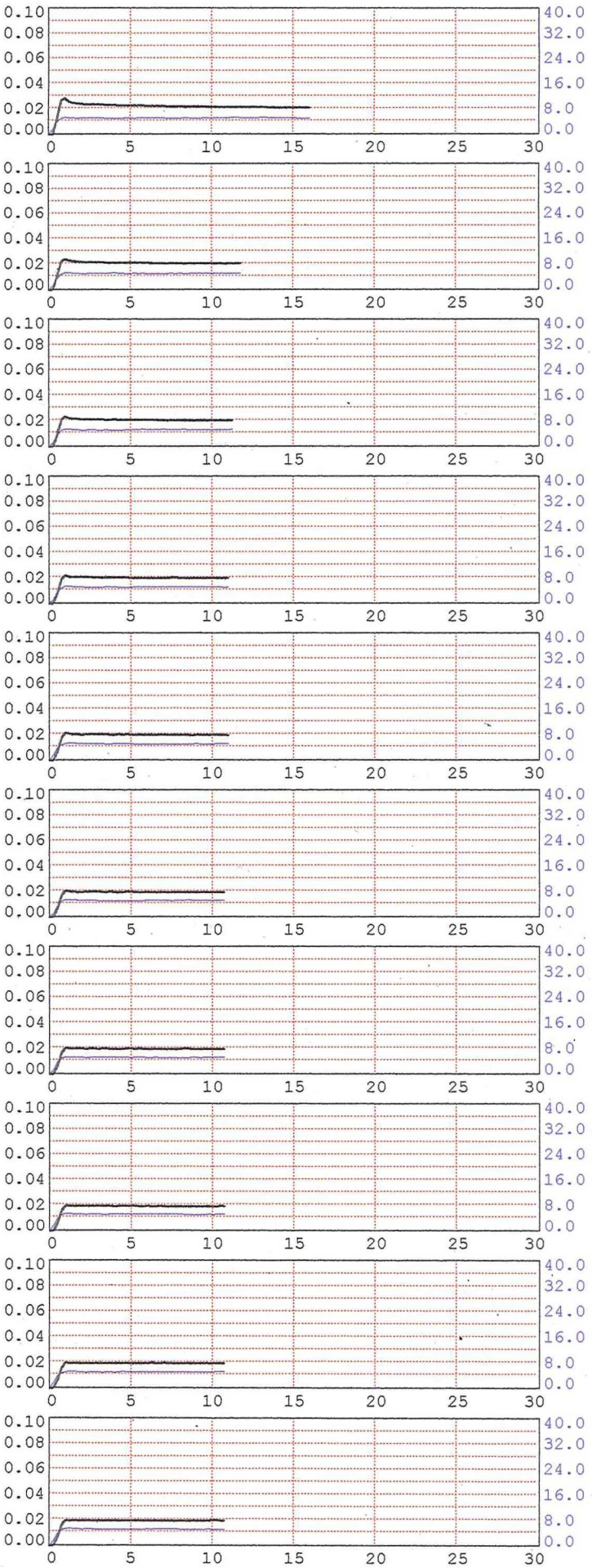
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-31-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	14:10
CALIBRATION CHECK	PASSED	14:10
SIMULATOR VAPOR 34.4°C	0.022	14:11
SIMULATOR VAPOR 34.2°C	0.021	14:12
SIMULATOR VAPOR 34.4°C	0.021	14:13
SIMULATOR VAPOR 34.2°C	0.020	14:14
SIMULATOR VAPOR 34.4°C	0.020	14:15
SIMULATOR VAPOR 34.4°C	0.020	14:16
SIMULATOR VAPOR 34.2°C	0.020	14:17
SIMULATOR VAPOR 34.4°C	0.020	14:18
SIMULATOR VAPOR 34.2°C	0.020	14:19
SIMULATOR VAPOR 34.2°C	0.020	14:20
BLANK TEST	0.000	14:21

Average = 0.020
Std Dev = 0.000

L.1
KLK
11-15-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/18/2011
Time: 14:31:07

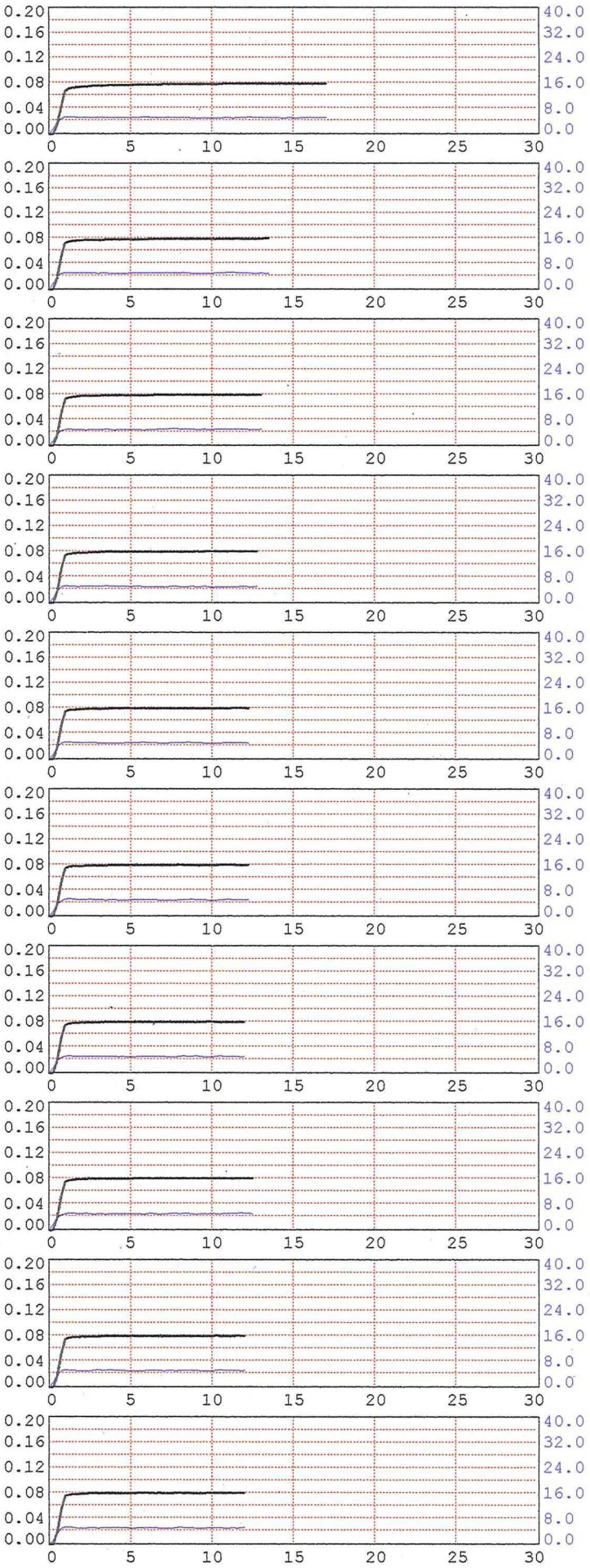
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	14:32
CALIBRATION CHECK	PASSED	14:32
SIMULATOR VAPOR 34.4°C	0.079	14:32
SIMULATOR VAPOR 34.4°C	0.080	14:33
SIMULATOR VAPOR 34.2°C	0.080	14:34
SIMULATOR VAPOR 34.2°C	0.081	14:35
SIMULATOR VAPOR 34.4°C	0.080	14:36
SIMULATOR VAPOR 34.2°C	0.080	14:37
SIMULATOR VAPOR 34.2°C	0.080	14:38
SIMULATOR VAPOR 34.2°C	0.081	14:39
SIMULATOR VAPOR 34.2°C	0.080	14:41
SIMULATOR VAPOR 34.2°C	0.080	14:42
BLANK TEST	0.000	14:42

Average = 0.080
Std Dev = 0.000

L-1
KLK
11-18-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/18/2011
Time: 14:48:53

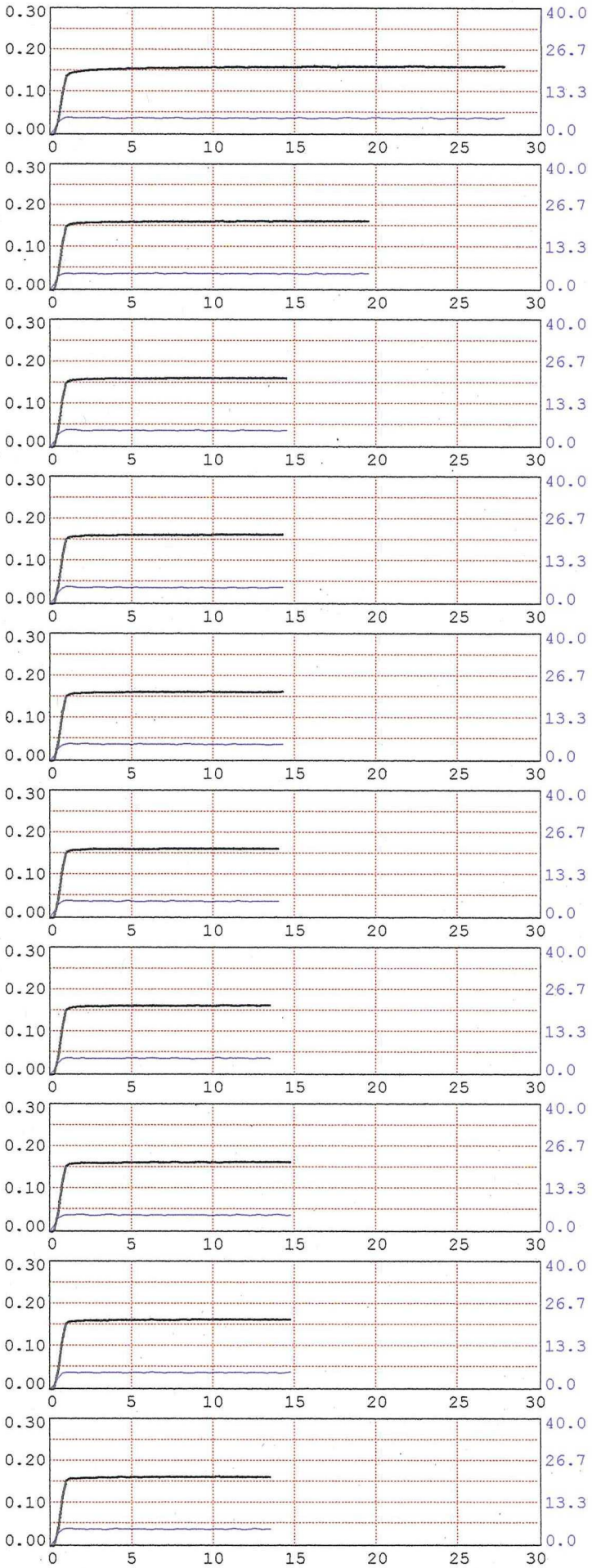
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	14:49
CALIBRATION CHECK	PASSED	14:49
SIMULATOR VAPOR 34.2°C	0.161	14:50
SIMULATOR VAPOR 34.2°C	0.161	14:51
SIMULATOR VAPOR 34.2°C	0.161	14:52
SIMULATOR VAPOR 34.2°C	0.162	14:53
SIMULATOR VAPOR 34.4°C	0.162	14:54
SIMULATOR VAPOR 34.4°C	0.162	14:56
SIMULATOR VAPOR 34.2°C	0.162	14:57
SIMULATOR VAPOR 34.2°C	0.162	14:58
SIMULATOR VAPOR 34.2°C	0.163	14:59
SIMULATOR VAPOR 34.2°C	0.162	15:00
BLANK TEST	0.000	15:01

Average = 0.161
Std Dev = 0.000

L-1
KLK
11-18-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/18/2011
Time: 15:06:37

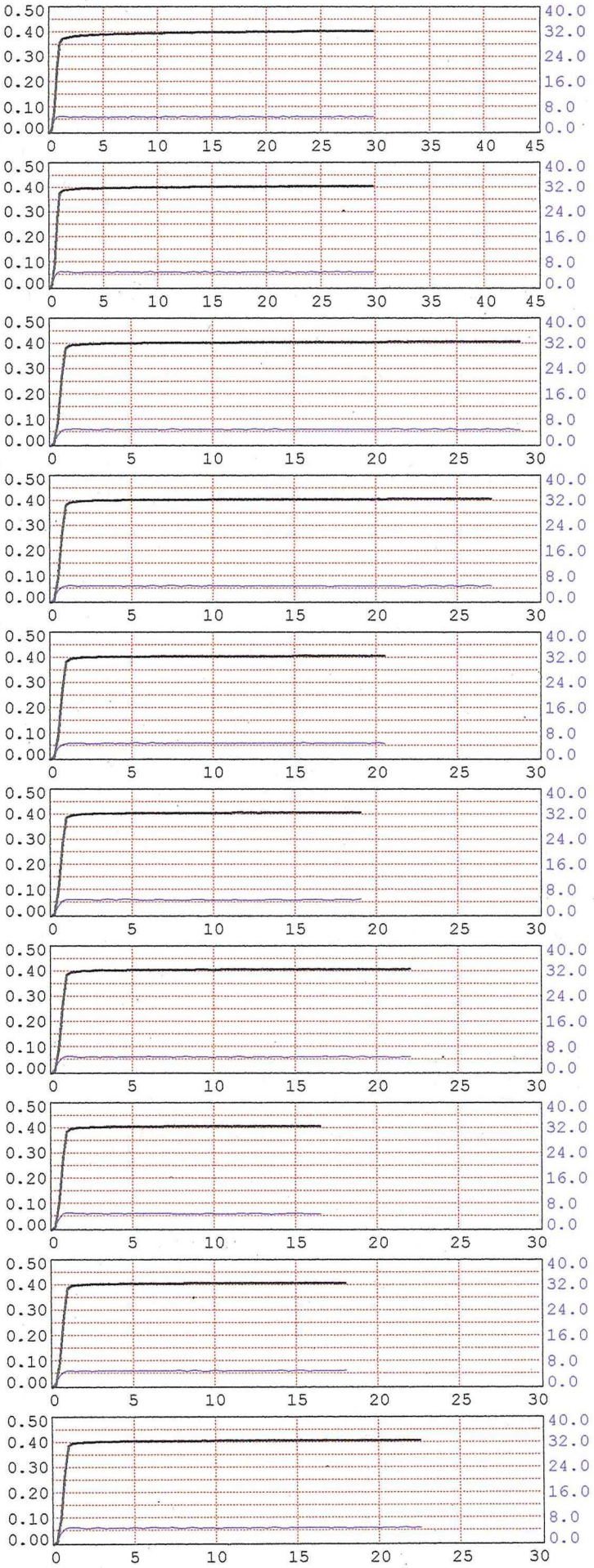
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-34-400
SOLUTION CONCENTRATION: 0.403

BLANK TEST	0.000	15:07
CALIBRATION CHECK	PASSED	15:07
SIMULATOR VAPOR 34.2°C	0.401	15:08
SIMULATOR VAPOR 34.4°C	0.403	15:09
SIMULATOR VAPOR 34.2°C	0.406	15:10
SIMULATOR VAPOR 34.4°C	0.405	15:12
SIMULATOR VAPOR 34.2°C	0.405	15:13
SIMULATOR VAPOR 34.2°C	0.405	15:14
SIMULATOR VAPOR 34.2°C	0.406	15:15
SIMULATOR VAPOR 34.4°C	0.406	15:17
SIMULATOR VAPOR 34.4°C	0.406	15:18
SIMULATOR VAPOR 34.2°C	0.406	15:19
BLANK TEST	0.000	15:20

Average = 0.404
Std Dev = 0.001

L-1
KLK
11-18-11



DIAGNOSTIC RESULT

DataMaster DMT: 100133
Location:
Calibration Date: 11/18/2011
Certification Date: 11/18/2011
Installation Date:
Test Date: 11/18/2011
Test Time: 15:21:56

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

TEMPERATURES

Sample Chamber = 48.9°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 = 537 Hz

PUMP INFO
Flow Rate = 6.330 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0516	0.0537
MIN(V)	0.0496	0.0522

FILTER INFO

Filter 1	0.052	Zero = true
Filter 2	0.425	Zero = true
Filter 3	1.076	Zero = true

CALIBRATION CHECK
Xq = 0.088 1.31%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 09:01:30

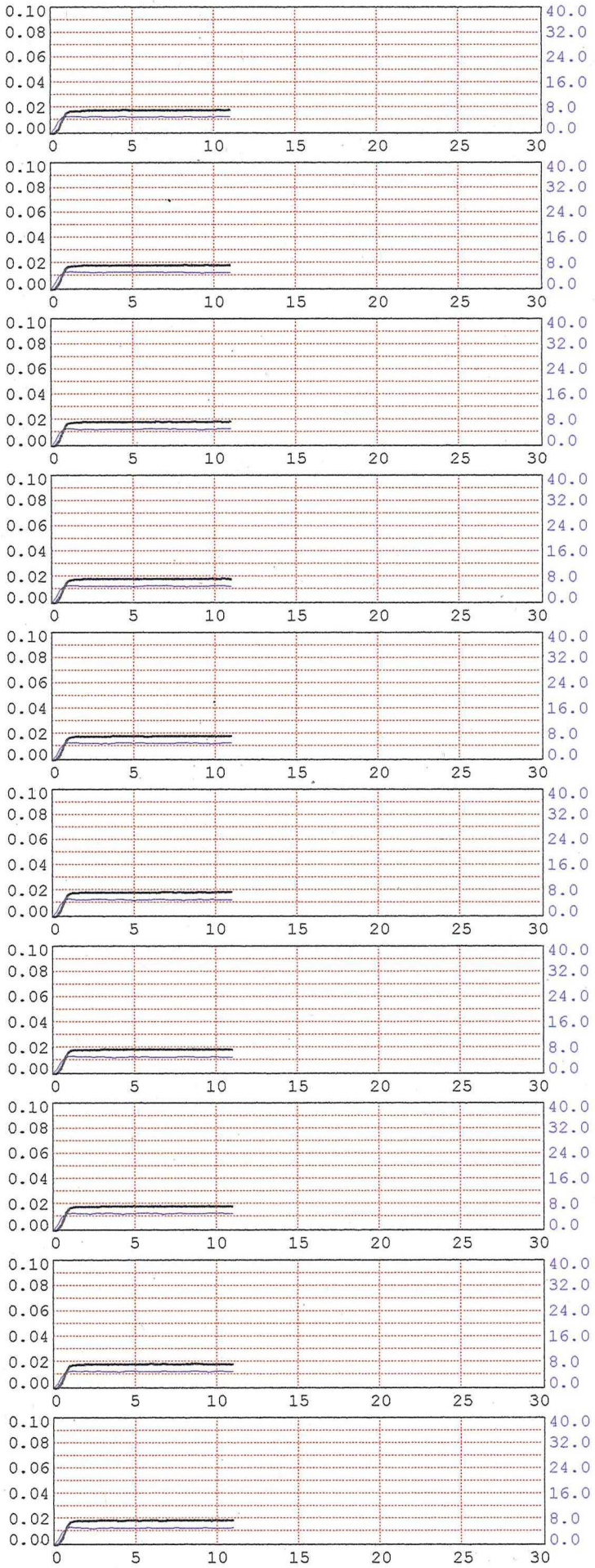
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-31-020
SOLUTION CONCENTRATION: 0.020

BLANK TEST	0.000	09:02
CALIBRATION CHECK	PASSED	09:02
SIMULATOR VAPOR 34.2°C	0.019	09:02
SIMULATOR VAPOR 34.2°C	0.019	09:03
SIMULATOR VAPOR 34.2°C	0.019	09:04
SIMULATOR VAPOR 34.2°C	0.019	09:05
SIMULATOR VAPOR 34.2°C	0.019	09:06
SIMULATOR VAPOR 34.2°C	0.019	09:07
SIMULATOR VAPOR 34.4°C	0.019	09:08
SIMULATOR VAPOR 34.2°C	0.019	09:10
SIMULATOR VAPOR 34.4°C	0.019	09:11
SIMULATOR VAPOR 34.2°C	0.019	09:12
BLANK TEST	0.000	09:12

Average = 0.019
Std Dev = 0.000

L-2
KLK
11-21-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 09:58:58

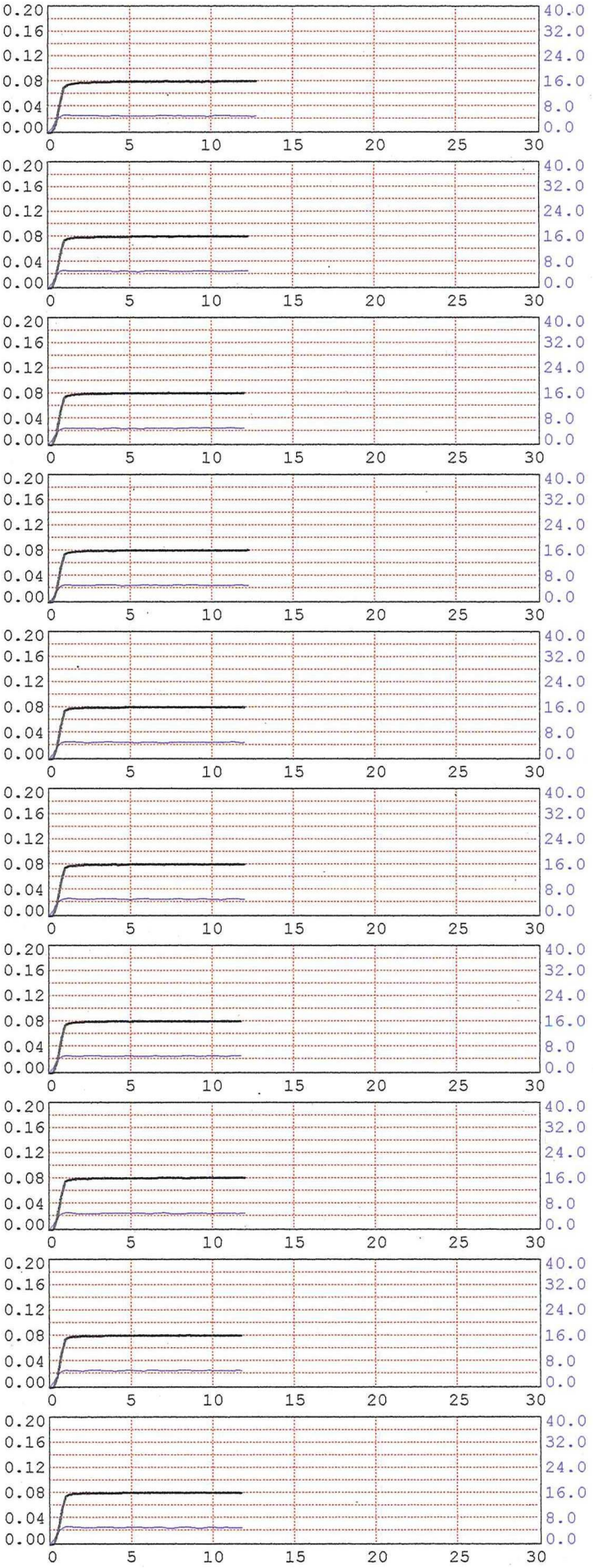
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	09:59
CALIBRATION CHECK	PASSED	09:59
SIMULATOR VAPOR 33.9°C	0.080	10:00
SIMULATOR VAPOR 33.9°C	0.081	10:01
SIMULATOR VAPOR 34.0°C	0.081	10:02
SIMULATOR VAPOR 33.9°C	0.081	10:03
SIMULATOR VAPOR 33.9°C	0.081	10:04
SIMULATOR VAPOR 33.9°C	0.081	10:05
SIMULATOR VAPOR 33.9°C	0.081	10:06
SIMULATOR VAPOR 33.9°C	0.081	10:07
SIMULATOR VAPOR 33.9°C	0.081	10:08
SIMULATOR VAPOR 33.9°C	0.081	10:09
BLANK TEST	0.000	10:10

Average = 0.080
Std Dev = 0.000

L-2
KLK
11-21-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 10:20:36

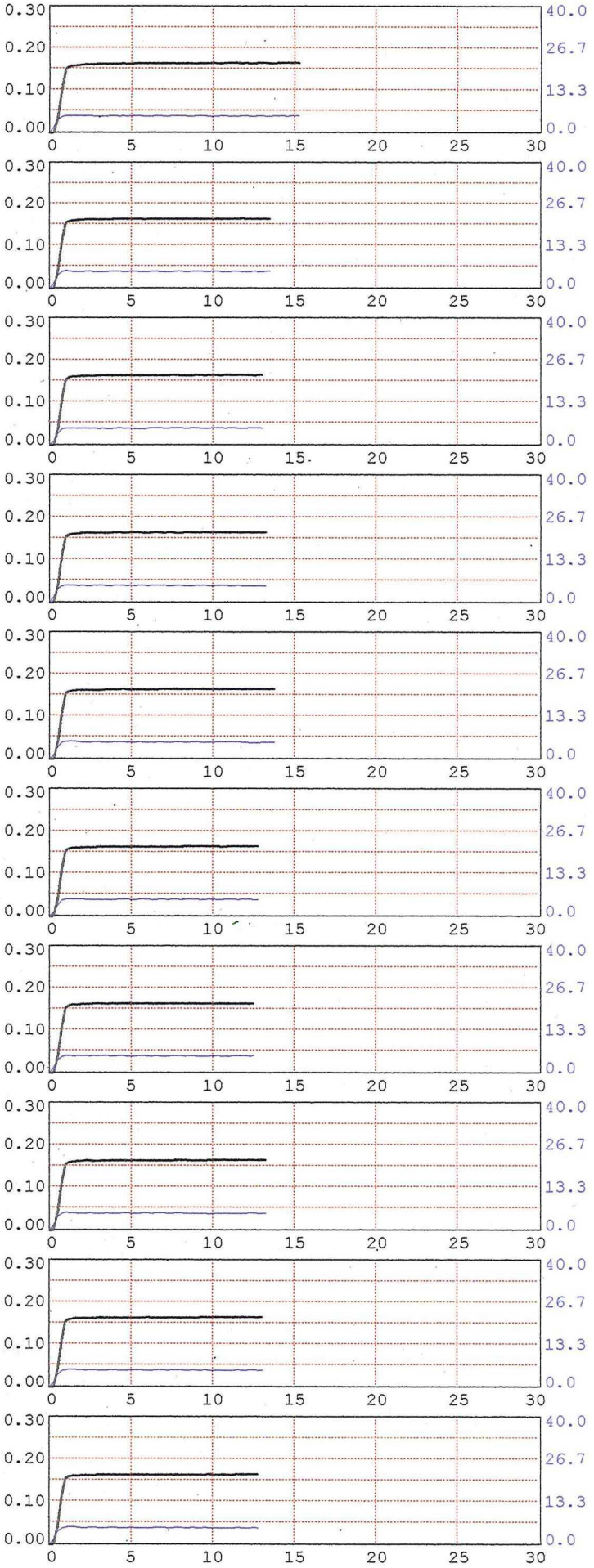
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	10:21
CALIBRATION CHECK	PASSED	10:21
SIMULATOR VAPOR 33.9°C	0.163	10:21
SIMULATOR VAPOR 33.9°C	0.163	10:23
SIMULATOR VAPOR 33.9°C	0.163	10:24
SIMULATOR VAPOR 33.9°C	0.164	10:25
SIMULATOR VAPOR 33.9°C	0.164	10:26
SIMULATOR VAPOR 33.8°C	0.163	10:27
SIMULATOR VAPOR 33.9°C	0.163	10:28
SIMULATOR VAPOR 33.9°C	0.164	10:29
SIMULATOR VAPOR 33.9°C	0.163	10:30
SIMULATOR VAPOR 33.9°C	0.163	10:31
BLANK TEST	0.000	10:32

Average = 0.163
Std Dev = 0.000

L-2
KLK
11-21-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 10:34:31

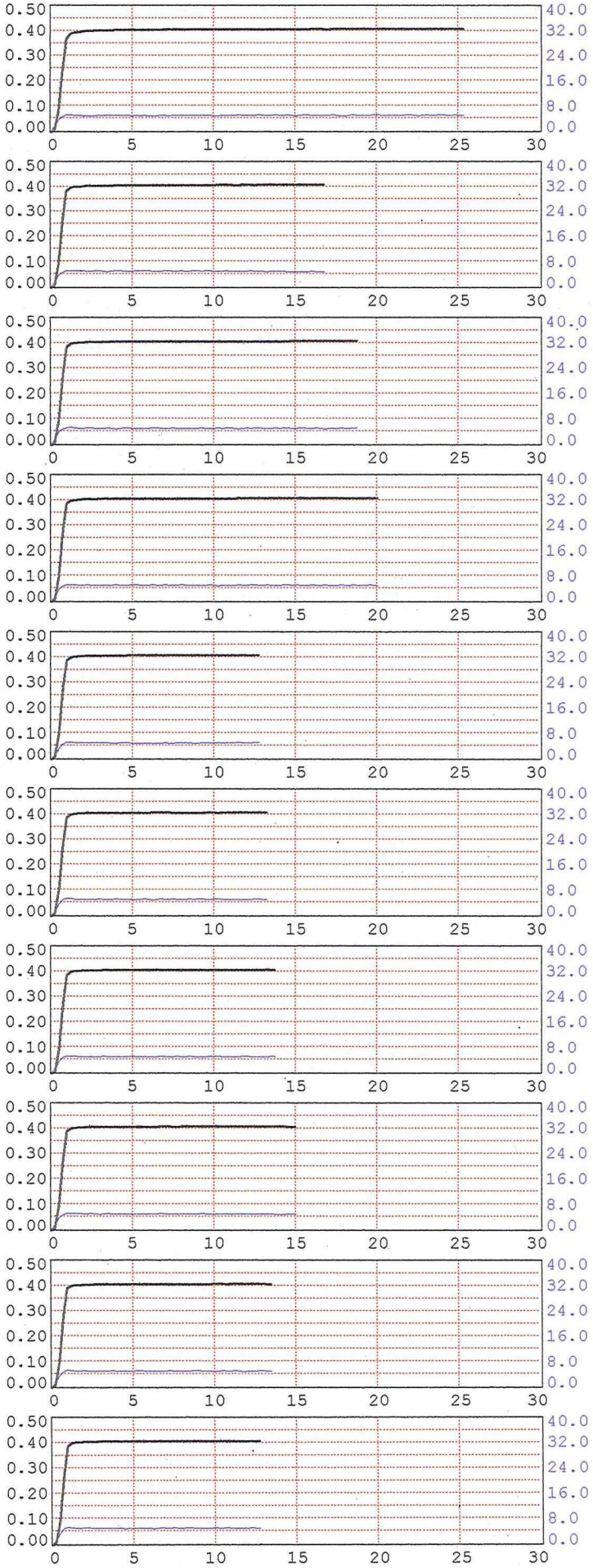
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: 12-34-400
SOLUTION CONCENTRATION: 0.403

BLANK TEST	0.000	10:35
CALIBRATION CHECK	PASSED	10:35
SIMULATOR VAPOR 33.9°C	0.405	10:36
SIMULATOR VAPOR 33.9°C	0.405	10:37
SIMULATOR VAPOR 33.9°C	0.405	10:38
SIMULATOR VAPOR 33.9°C	0.405	10:39
SIMULATOR VAPOR 33.9°C	0.405	10:40
SIMULATOR VAPOR 33.9°C	0.405	10:41
SIMULATOR VAPOR 33.9°C	0.405	10:42
SIMULATOR VAPOR 33.9°C	0.404	10:44
SIMULATOR VAPOR 33.9°C	0.405	10:45
SIMULATOR VAPOR 33.9°C	0.404	10:46
BLANK TEST	0.000	10:47

Average = 0.404
Std Dev = 0.000

L-2
11-21-11



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: 11:41:38

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

TEMPERATURES

Sample Chamber = 48.9°C
Breath Tube = 45.7°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 = 6.436 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0736	0.0748
MIN(V)	0.0722	0.0736

FILTER INFO
Filter 1 0.074 Zero = true
Filter 2 0.444 Zero = true
Filter 3 1.100 Zero = true

CALIBRATION CHECK
Xq = 0.088 1.21%

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: 14:56:47

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

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube = 48.1°C
Digital Sim = 34.0°C

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

PUMP INFO
Flow Rate = 6.435 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0447	0.0459
MIN(V)	0.0413	0.0447

FILTER INFO
Filter 1 0.045 Zero = true
Filter 2 0.418 Zero = true
Filter 3 1.053 Zero = true

CALIBRATION CHECK
Xq = 0.087 0.10%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 14:59:45

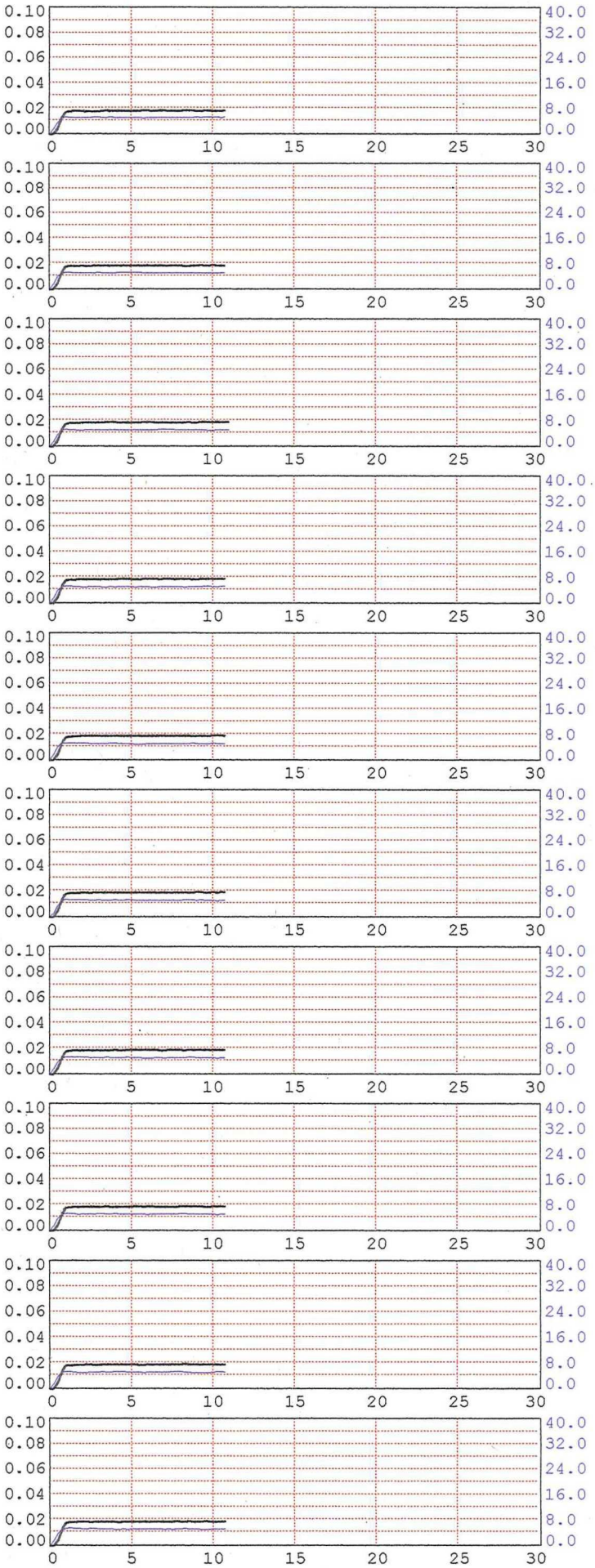
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	15:00
CALIBRATION CHECK	PASSED	15:00
SIMULATOR VAPOR 34.0°C	0.019	15:01
SIMULATOR VAPOR 33.9°C	0.019	15:02
SIMULATOR VAPOR 34.0°C	0.019	15:03
SIMULATOR VAPOR 33.9°C	0.019	15:04
SIMULATOR VAPOR 34.0°C	0.020	15:05
SIMULATOR VAPOR 33.9°C	0.020	15:06
SIMULATOR VAPOR 34.0°C	0.020	15:07
SIMULATOR VAPOR 34.0°C	0.020	15:08
SIMULATOR VAPOR 33.9°C	0.019	15:09
SIMULATOR VAPOR 33.9°C	0.019	15:10
BLANK TEST	0.000	15:11

Average = 0.019
Std Dev = 0.000

LJ 11/21/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 15:40:18

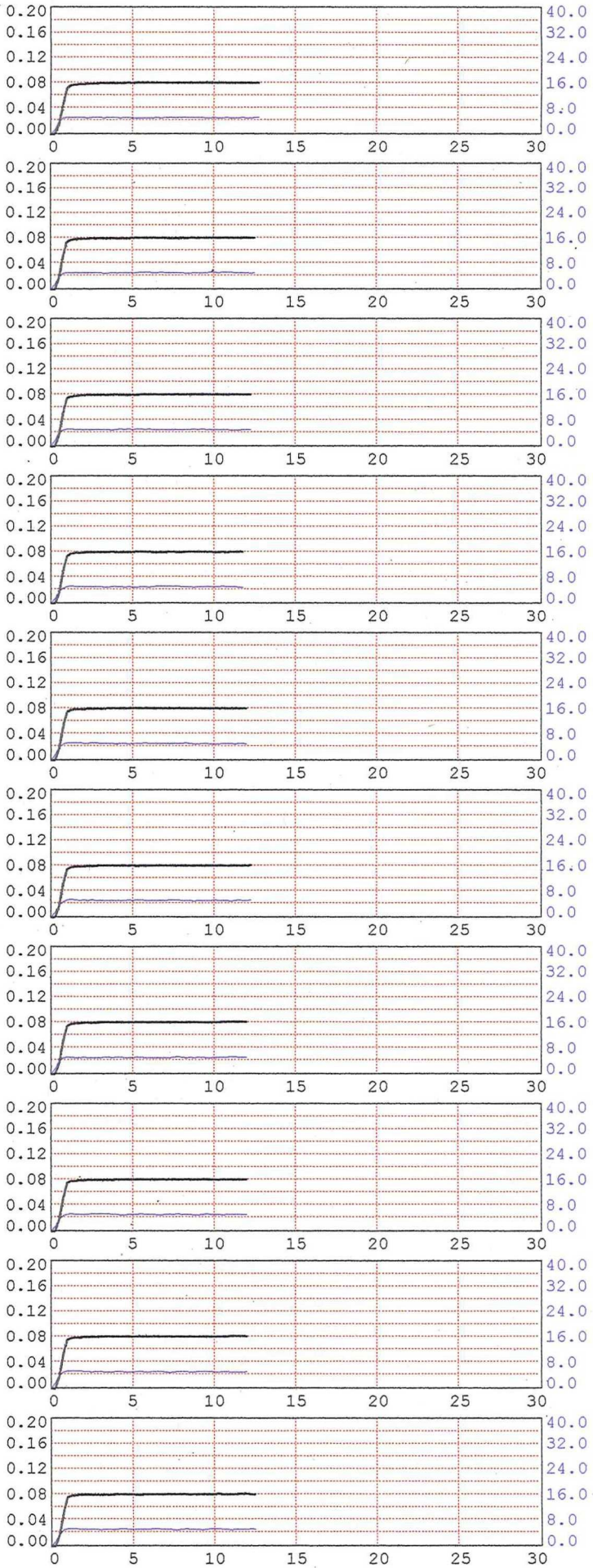
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	15:41
CALIBRATION CHECK	PASSED	15:41
SIMULATOR VAPOR 34.0°C	0.081	15:41
SIMULATOR VAPOR 33.8°C	0.081	15:42
SIMULATOR VAPOR 33.9°C	0.081	15:43
SIMULATOR VAPOR 33.9°C	0.081	15:44
SIMULATOR VAPOR 33.9°C	0.081	15:45
SIMULATOR VAPOR 33.9°C	0.081	15:46
SIMULATOR VAPOR 33.9°C	0.081	15:47
SIMULATOR VAPOR 33.9°C	0.081	15:49
SIMULATOR VAPOR 33.9°C	0.081	15:50
SIMULATOR VAPOR 33.9°C	0.081	15:51
BLANK TEST	0.000	15:51

Average = 0.081
Std Dev = 0.000

L3 11/21/11 SRM



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 15:54:10

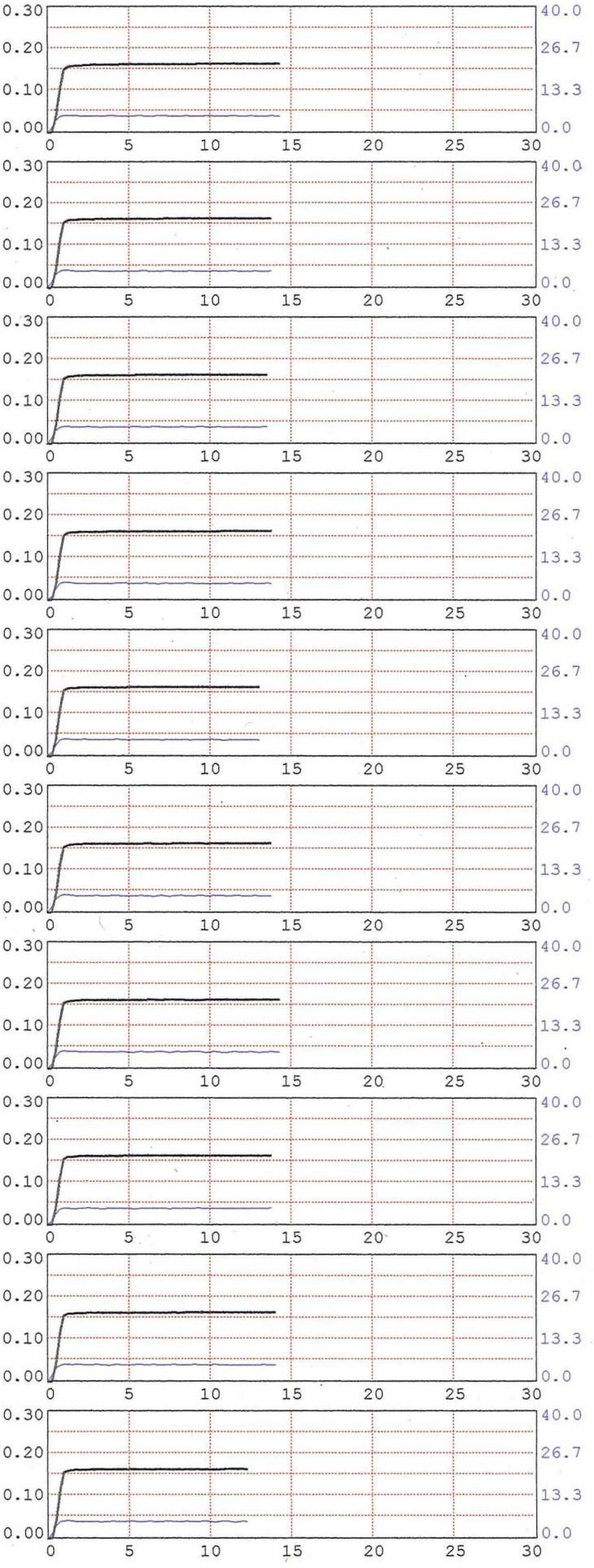
SUPERVISOR NAME:
STEVEN R MERRILL

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

BLANK TEST	0.000	15:55
CALIBRATION CHECK	PASSED	15:55
SIMULATOR VAPOR 33.9°C	0.162	15:55
SIMULATOR VAPOR 33.9°C	0.163	15:56
SIMULATOR VAPOR 33.9°C	0.163	15:57
SIMULATOR VAPOR 33.9°C	0.162	15:58
SIMULATOR VAPOR 33.9°C	0.163	15:59
SIMULATOR VAPOR 33.9°C	0.162	16:00
SIMULATOR VAPOR 33.9°C	0.163	16:02
SIMULATOR VAPOR 33.9°C	0.163	16:03
SIMULATOR VAPOR 33.9°C	0.162	16:04
SIMULATOR VAPOR 33.9°C	0.162	16:05
BLANK TEST	0.000	16:06

Average = 0.162
Std Dev = 0.000

L3 11/21/11 [illegible]



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/21/2011
Time: 16:09:01

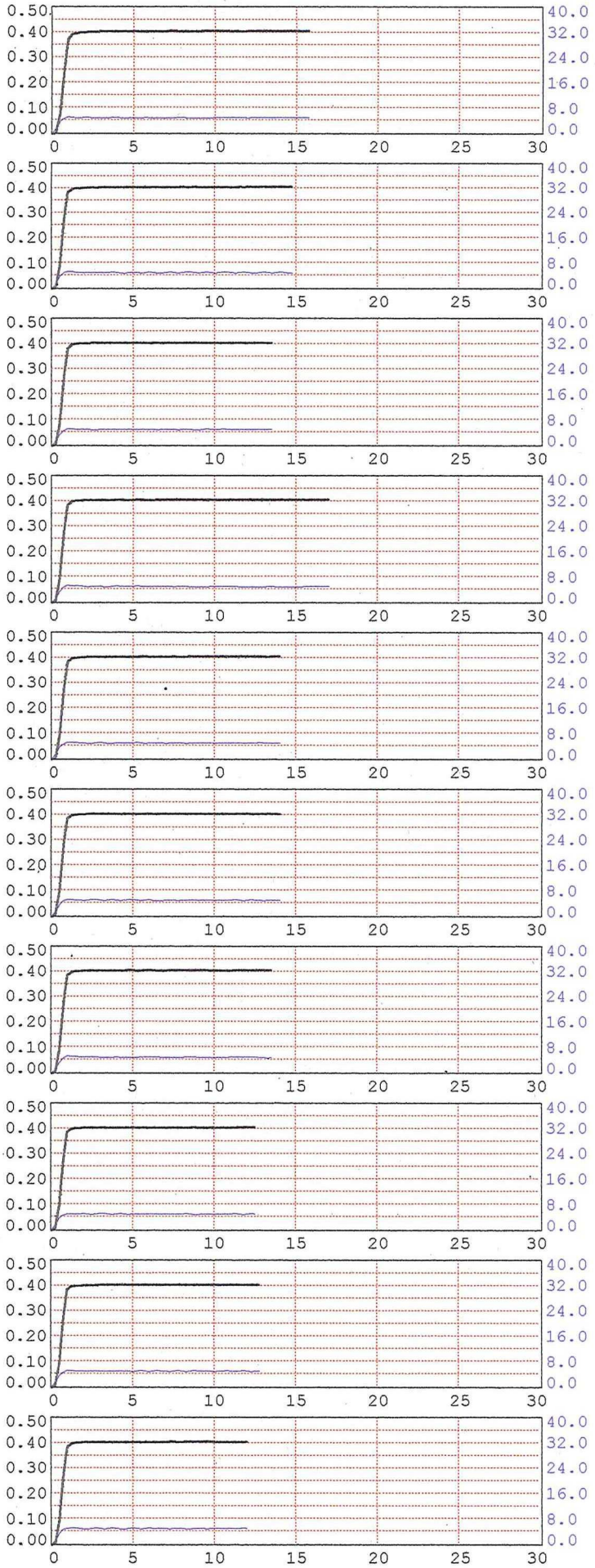
SUPERVISOR NAME:
STEVEN R MERRILL

SOLUTION LOT #: 12-34-400
SOLUTION CONCENTRATION: 0.403

BLANK TEST	0.000	16:09
CALIBRATION CHECK	PASSED	16:10
SIMULATOR VAPOR 33.9°C	0.403	16:10
SIMULATOR VAPOR 33.9°C	0.402	16:11
SIMULATOR VAPOR 33.9°C	0.402	16:12
SIMULATOR VAPOR 33.9°C	0.403	16:13
SIMULATOR VAPOR 33.9°C	0.403	16:14
SIMULATOR VAPOR 33.9°C	0.402	16:16
SIMULATOR VAPOR 33.9°C	0.403	16:17
SIMULATOR VAPOR 33.9°C	0.402	16:18
SIMULATOR VAPOR 33.9°C	0.402	16:19
SIMULATOR VAPOR 33.9°C	0.403	16:20
BLANK TEST	0.000	16:21

Average = 0.402
Std Dev = 0.000

L3 11/21/11 SR



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: 06:59:41

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

TEMPERATURES

Sample Chamber = 49.0°C
Breath Tube = 48.0°C
Digital Sim = 34.0°C

SETTINGS
Lamp Voltage = 1.64 V
Cooler Voltage = 1.59 V
Bias Voltage = 81 V
Chopper Freq = 536 Hz

PUMP INFO
Flow Rate = 6.393 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0278	0.0305
MIN(V)	0.0264	0.0293

FILTER INFO
Filter 1 0.029 Zero = true
Filter 2 0.403 Zero = true
Filter 3 1.027 Zero = true

CALIBRATION CHECK
Xq = 0.087 0.10%

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: 12:20:06

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

TEMPERATURES

Sample Chamber = 48.7°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 = 534 Hz

PUMP INFO
Flow Rate = 6.417 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0211	0.0238
MIN(V)	0.0195	0.0220

FILTER INFO

Filter 1	0.022	Zero = true
Filter 2	0.401	Zero = true
Filter 3	1.016	Zero = true

CALIBRATION CHECK
Xq = 0.087 0.10%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 12/05/2011
Time: 12:56:27

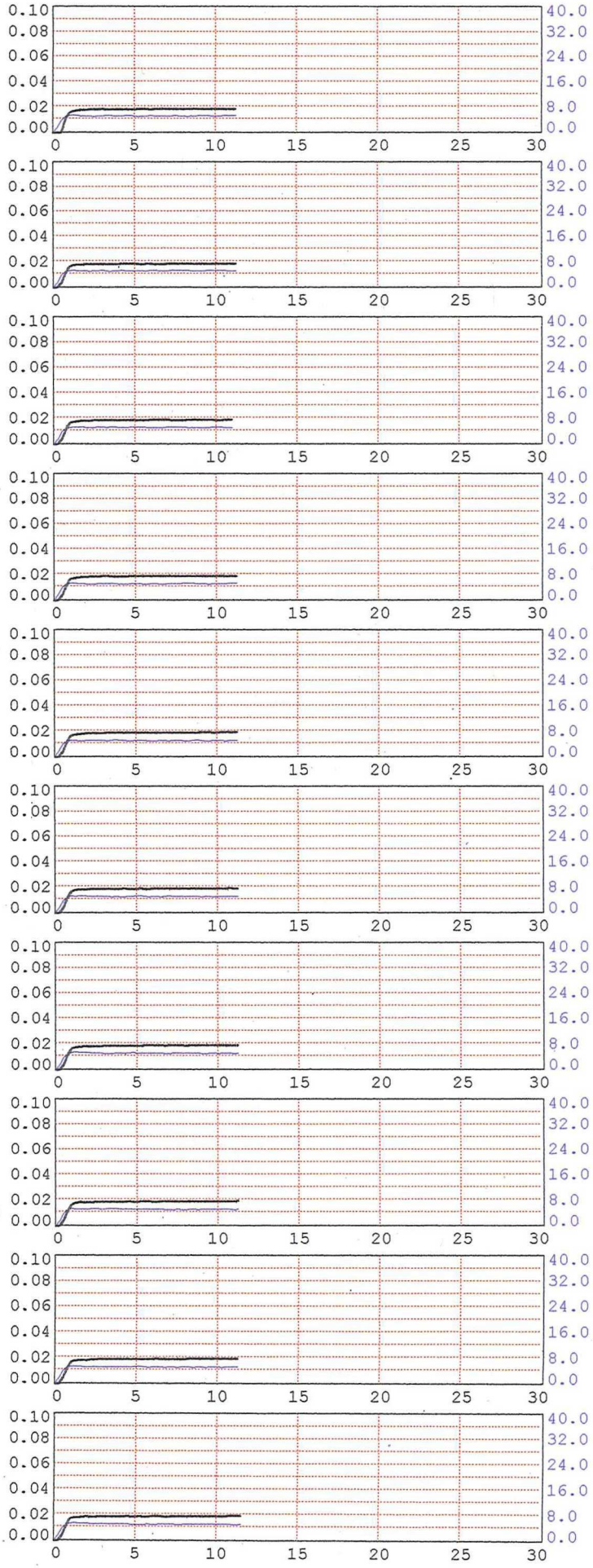
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	12:57
CALIBRATION CHECK	PASSED	12:57
SIMULATOR VAPOR 34.4°C	0.019	12:57
SIMULATOR VAPOR 34.2°C	0.019	12:58
SIMULATOR VAPOR 34.4°C	0.020	12:59
SIMULATOR VAPOR 34.2°C	0.020	13:00
SIMULATOR VAPOR 34.2°C	0.020	13:01
SIMULATOR VAPOR 34.2°C	0.020	13:02
SIMULATOR VAPOR 34.2°C	0.020	13:03
SIMULATOR VAPOR 34.2°C	0.020	13:04
SIMULATOR VAPOR 34.4°C	0.020	13:05
SIMULATOR VAPOR 34.2°C	0.020	13:07
BLANK TEST	0.000	13:07

Average = 0.019
Std Dev = 0.000

L-4
KLK
12-5-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 12/05/2011
Time: 13:16:22

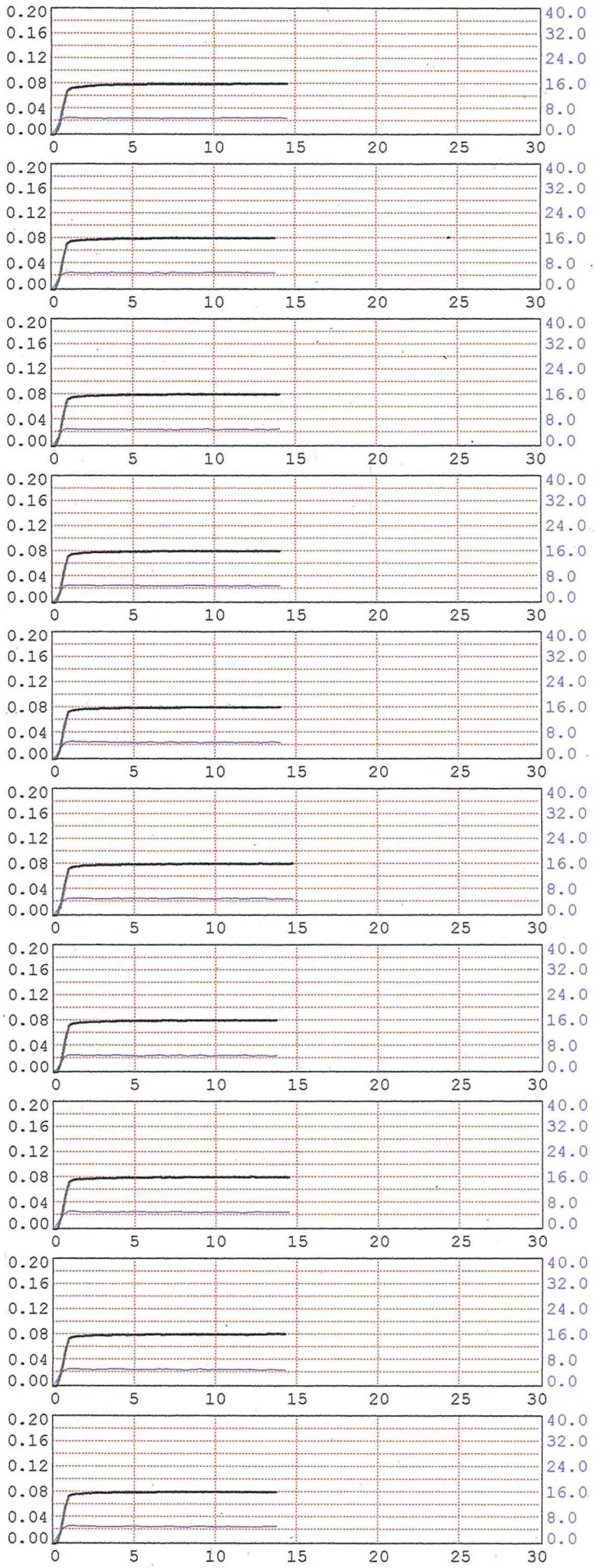
SUPERVISOR NAME:
KIRK L KIMBAL

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

BLANK TEST	0.000	13:17
CALIBRATION CHECK	PASSED	13:17
SIMULATOR VAPOR 34.2°C	0.081	13:17
SIMULATOR VAPOR 34.2°C	0.081	13:18
SIMULATOR VAPOR 34.4°C	0.081	13:19
SIMULATOR VAPOR 34.2°C	0.081	13:20
SIMULATOR VAPOR 34.4°C	0.081	13:22
SIMULATOR VAPOR 34.4°C	0.081	13:23
SIMULATOR VAPOR 34.4°C	0.081	13:24
SIMULATOR VAPOR 34.2°C	0.081	13:25
SIMULATOR VAPOR 34.4°C	0.081	13:26
SIMULATOR VAPOR 34.2°C	0.081	13:27
BLANK TEST	0.000	13:28

Average = 0.081
Std Dev = 0.000

L-4
12-5-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 12/05/2011
Time: 13:31:45

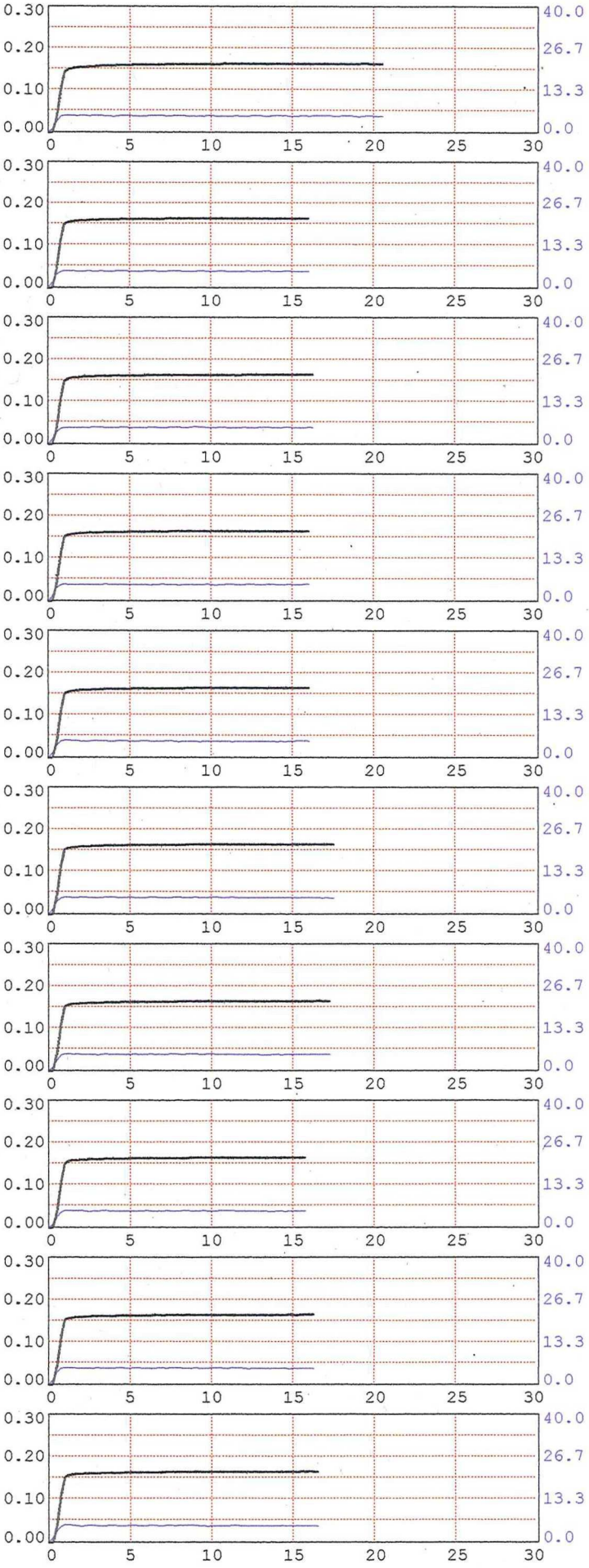
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	13:32
CALIBRATION CHECK	PASSED	13:32
SIMULATOR VAPOR 34.4°C	0.163	13:33
SIMULATOR VAPOR 34.4°C	0.163	13:34
SIMULATOR VAPOR 34.4°C	0.163	13:35
SIMULATOR VAPOR 34.4°C	0.164	13:36
SIMULATOR VAPOR 34.4°C	0.164	13:37
SIMULATOR VAPOR 34.4°C	0.164	13:38
SIMULATOR VAPOR 34.4°C	0.164	13:40
SIMULATOR VAPOR 34.2°C	0.164	13:41
SIMULATOR VAPOR 34.2°C	0.164	13:42
SIMULATOR VAPOR 34.2°C	0.164	13:43
BLANK TEST	0.000	13:44

Average = 0.163
Std Dev = 0.000

L-4
12-5-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 12/05/2011
Time: 13:48:58

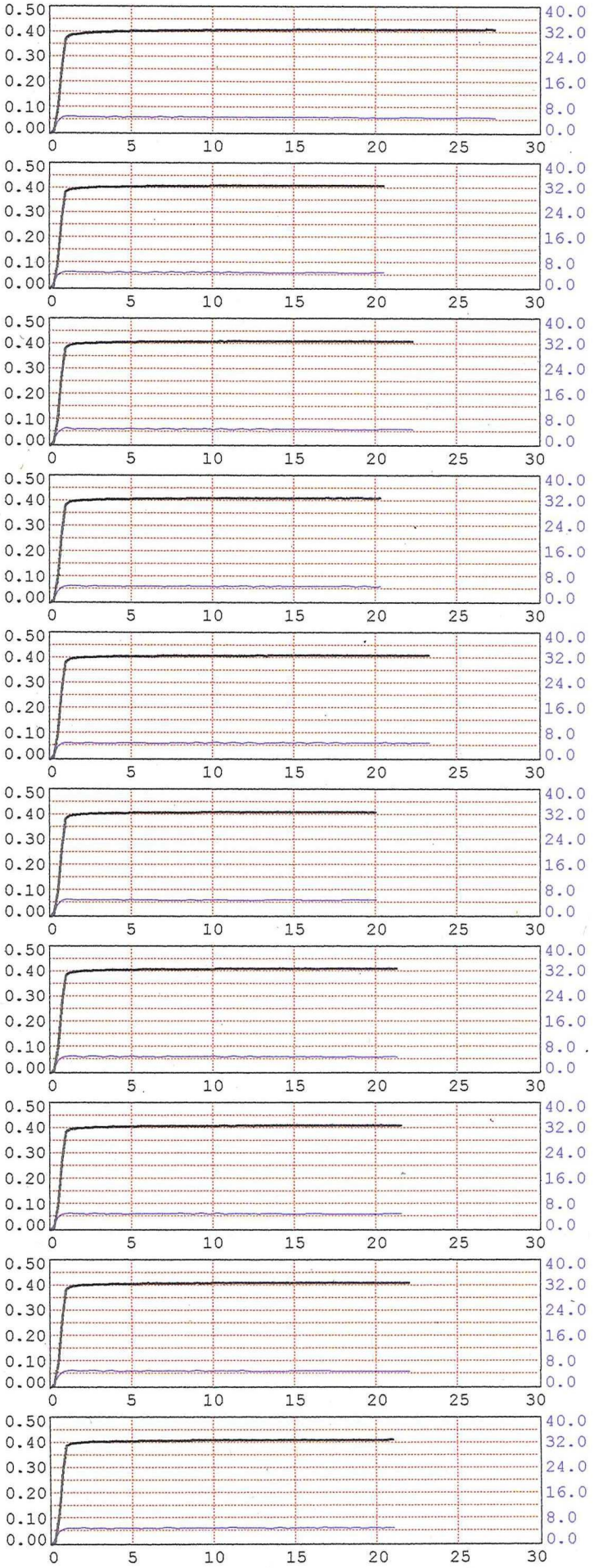
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	13:49
CALIBRATION CHECK	PASSED	13:49
SIMULATOR VAPOR 34.2°C	0.408	13:50
SIMULATOR VAPOR 34.2°C	0.408	13:51
SIMULATOR VAPOR 34.2°C	0.408	13:53
SIMULATOR VAPOR 34.2°C	0.409	13:54
SIMULATOR VAPOR 34.4°C	0.408	13:55
SIMULATOR VAPOR 34.4°C	0.408	13:56
SIMULATOR VAPOR 34.4°C	0.408	13:57
SIMULATOR VAPOR 34.4°C	0.408	13:59
SIMULATOR VAPOR 34.4°C	0.408	14:00
SIMULATOR VAPOR 34.2°C	0.409	14:01
BLANK TEST	0.000	14:02

Average = 0.408
Std Dev = 0.000

L4 12/05/11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 11:26:07

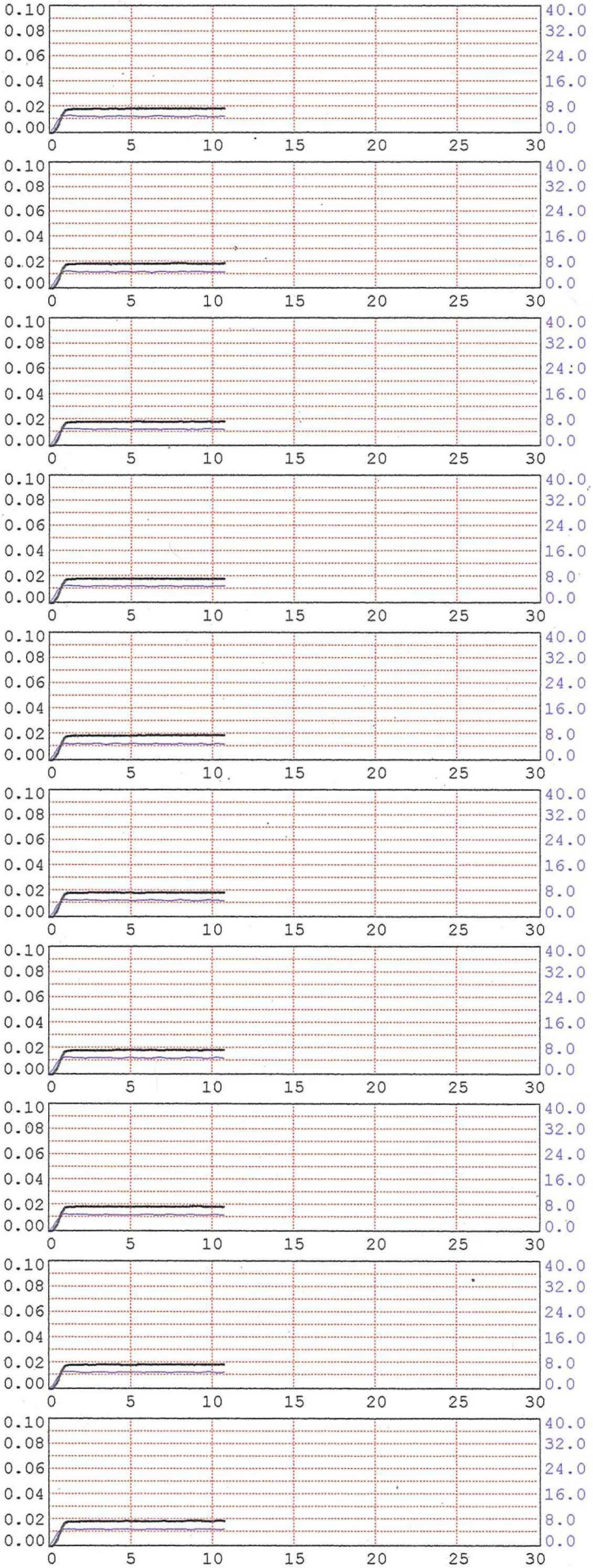
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	11:27
CALIBRATION CHECK	PASSED	11:27
SIMULATOR VAPOR 34.2°C	0.019	11:27
SIMULATOR VAPOR 34.2°C	0.020	11:28
SIMULATOR VAPOR 34.1°C	0.019	11:29
SIMULATOR VAPOR 34.2°C	0.019	11:30
SIMULATOR VAPOR 34.2°C	0.020	11:31
SIMULATOR VAPOR 34.2°C	0.019	11:32
SIMULATOR VAPOR 34.2°C	0.019	11:33
SIMULATOR VAPOR 34.2°C	0.020	11:34
SIMULATOR VAPOR 34.2°C	0.019	11:35
SIMULATOR VAPOR 34.2°C	0.019	11:36
BLANK TEST	0.000	11:37

Average = 0.019
Std Dev = 0.000

L-5
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 11:43:56

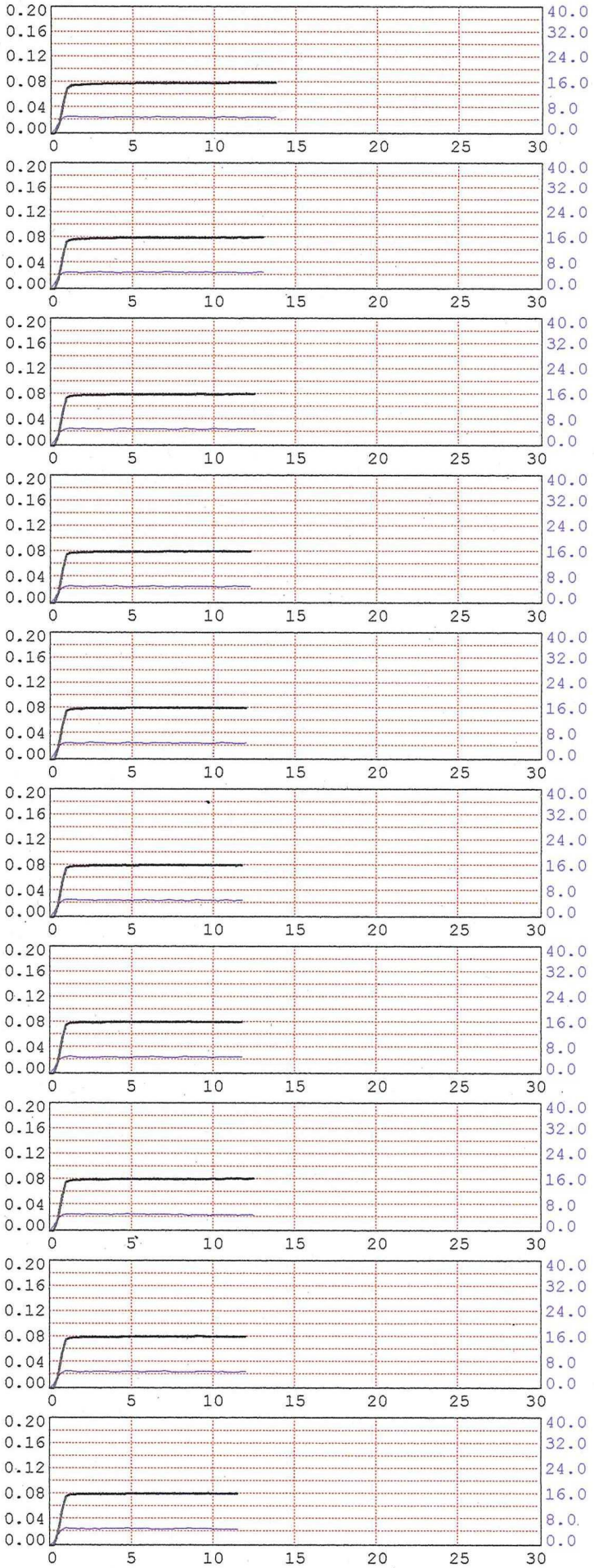
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	11:44
CALIBRATION CHECK	PASSED	11:44
SIMULATOR VAPOR 34.2°C	0.079	11:45
SIMULATOR VAPOR 34.2°C	0.080	11:46
SIMULATOR VAPOR 34.1°C	0.080	11:47
SIMULATOR VAPOR 34.2°C	0.080	11:48
SIMULATOR VAPOR 34.2°C	0.081	11:49
SIMULATOR VAPOR 34.2°C	0.080	11:50
SIMULATOR VAPOR 34.2°C	0.081	11:51
SIMULATOR VAPOR 34.2°C	0.081	11:52
SIMULATOR VAPOR 34.1°C	0.081	11:53
SIMULATOR VAPOR 34.2°C	0.081	11:54
BLANK TEST	0.000	11:55

Average = 0.080
Std Dev = 0.000

E-5
KLK
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100133

Date: 11/22/2011
Time: 12:33:16

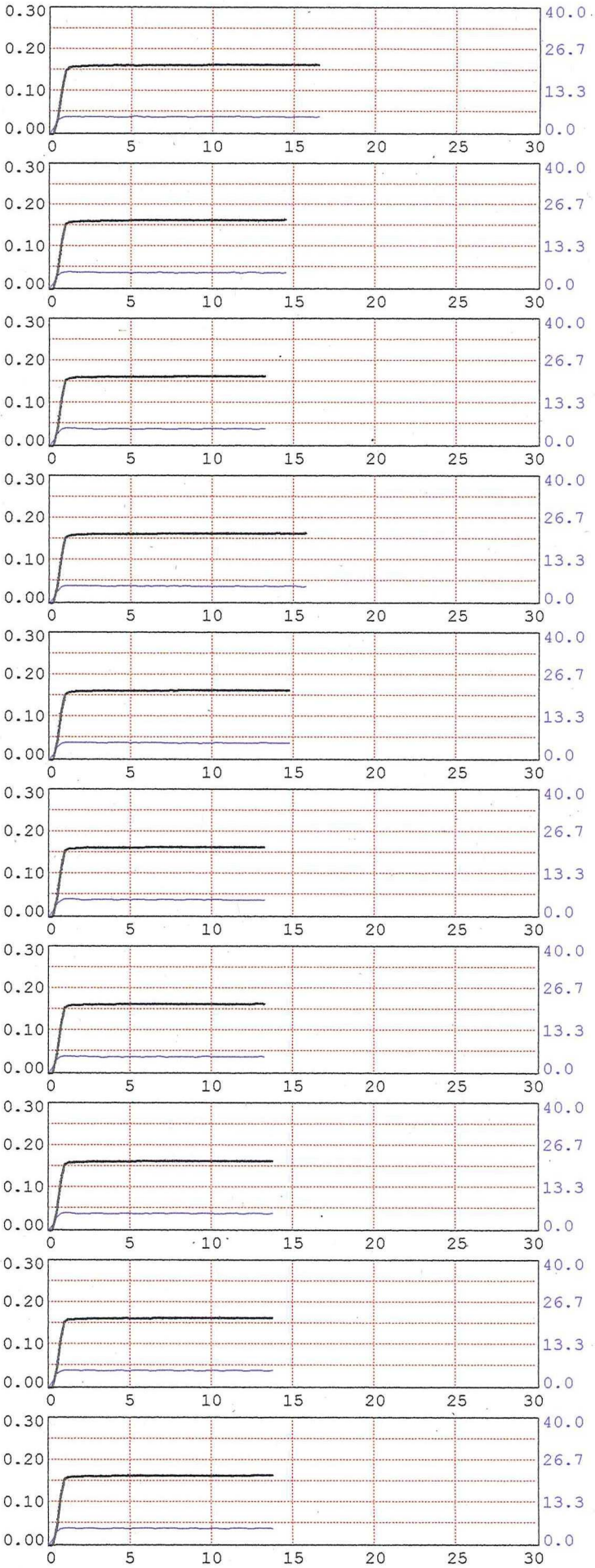
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	12:34
CALIBRATION CHECK	PASSED	12:34
SIMULATOR VAPOR 34.2°C	0.163	12:34
SIMULATOR VAPOR 34.2°C	0.163	12:35
SIMULATOR VAPOR 34.2°C	0.163	12:36
SIMULATOR VAPOR 34.2°C	0.163	12:37
SIMULATOR VAPOR 34.2°C	0.163	12:39
SIMULATOR VAPOR 34.2°C	0.163	12:40
SIMULATOR VAPOR 34.2°C	0.163	12:41
SIMULATOR VAPOR 34.2°C	0.163	12:42
SIMULATOR VAPOR 34.2°C	0.163	12:43
SIMULATOR VAPOR 34.2°C	0.163	12:44
BLANK TEST	0.000	12:45

Average = 0.163
Std Dev = 0.000

L-5
KLK
11-22-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

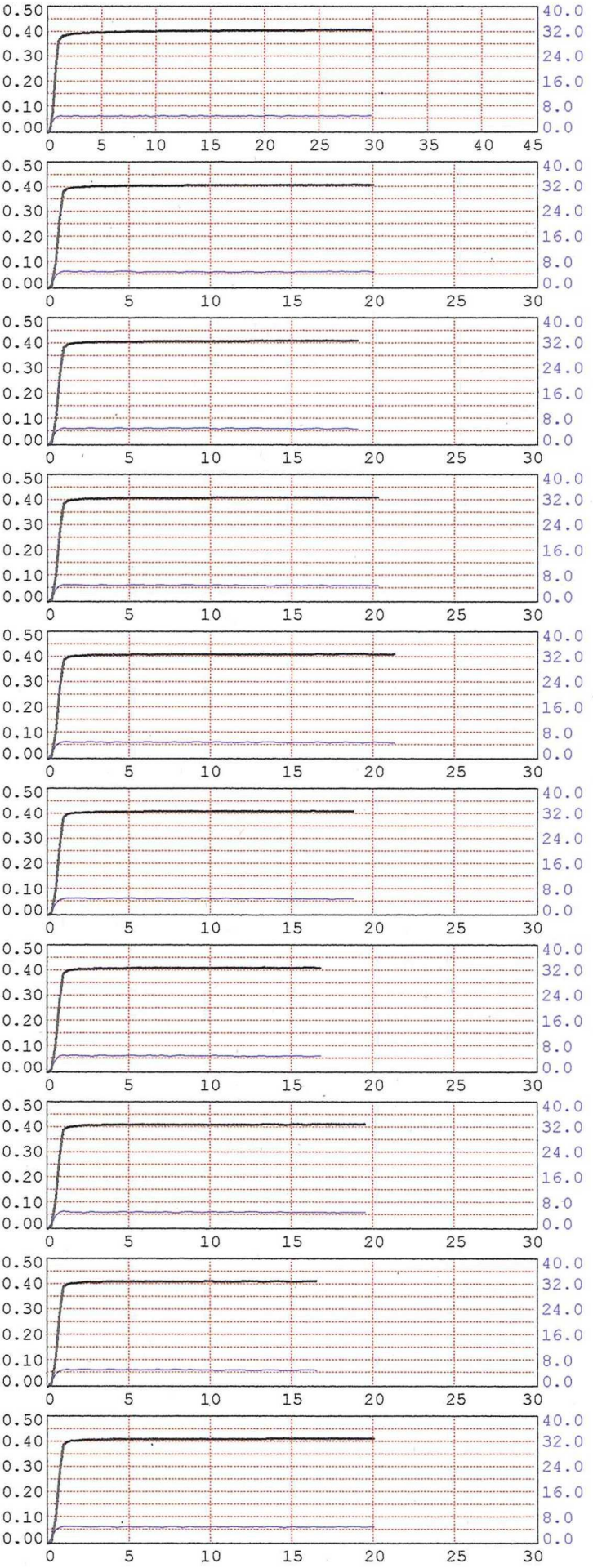
DataMater DMT: 100133

Date: 11/22/2011
Time: 12:51:40

SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	12:52
CALIBRATION CHECK	PASSED	12:52
SIMULATOR VAPOR 34.2°C	0.405	12:53
SIMULATOR VAPOR 34.2°C	0.406	12:54
SIMULATOR VAPOR 34.2°C	0.407	12:55
SIMULATOR VAPOR 34.2°C	0.408	12:56
SIMULATOR VAPOR 34.2°C	0.408	12:58
SIMULATOR VAPOR 34.2°C	0.408	12:59
SIMULATOR VAPOR 34.2°C	0.408	13:00
SIMULATOR VAPOR 34.1°C	0.409	13:01
SIMULATOR VAPOR 34.2°C	0.409	13:02
SIMULATOR VAPOR 34.2°C	0.409	13:04
BLANK TEST	0.000	13:04

Average = 0.407
Std Dev = 0.001

L-5
[illegible]
11-22-11