VERMONT FORENSIC LABORATORY

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DATAMASTER TECHNICAL SUPPORT INQUIRY

Agency/Site: Springfield PD **DataMaster Serial #:** 102606

Date: 6/27 /2012 Requestor: Greg Molgano

Instrument Supervisor: Chris Norton Phone #:

Taken By: T. Conti

Problem: Simulator runs high during RPC and solution changes

Laboratory Response: Ensure no condensation has entered the tubes, purge the sample chamber and 5-way valve. Run A&P checks to see if the average is within range.

Work Performed: Average still high after checks, VFL will retrieve 6/28/12

6/28/12- Software updated, instrument calibrated.

6/29/12- Checked detector voltage prior to certification, found to be > +/- 0.1V. Unit optimized and recalibrated. During certification, unit failed to identify interfering compounds >80%.

7/2/12- Recalibrated instrument and retested interfering compounds, only 40% identification of interferences. Unit will not be redeployed for field service.

Redeployment testing completed at VDHL in August 2011 demonstrates that the instrument was capable of successfully identifying interferences at the time of deployment in September 2011 until the instrument's removal. The ability of the instrument to detect interfering compounds does not change over time. The loss of the instrument's ability to see interferences was due to the recalibration during service.

☐ On Site ☒ In-house Attachments: 10 pages

Performed By: Date: 7/2/12
Final Review: Date: 7/2/2012

CALIBRATION REPORT

DataMaster DMT: 102606
Calibration Date: 06/28/2012
Calibrated by: AMANDA BOLDUC
Lot: 12-71-100

Ca = 0.100			
CAL = 0.973221	0.800	<= CAL <	1.200
b1 = 0.001	0.000	<= b1 <	0.004
b2 = 0.004	0.002	<= b2 <	0.010
b3 = 0.001	0.000	<= b3 <	0.004
Xq = 0.082	0.050	<= Xq <	0.200
a21 = 1.136732	1.050	<= a21 <	1.300
a31 = 0.437699	0.300	<= a31 <	0.800

detector voltage ±0.10 when attempting certification recalibrated 6/29/12

Performed by _____ Date 06/28/2012

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 102606

Date: 06/28/2012
Time: 14:22:20

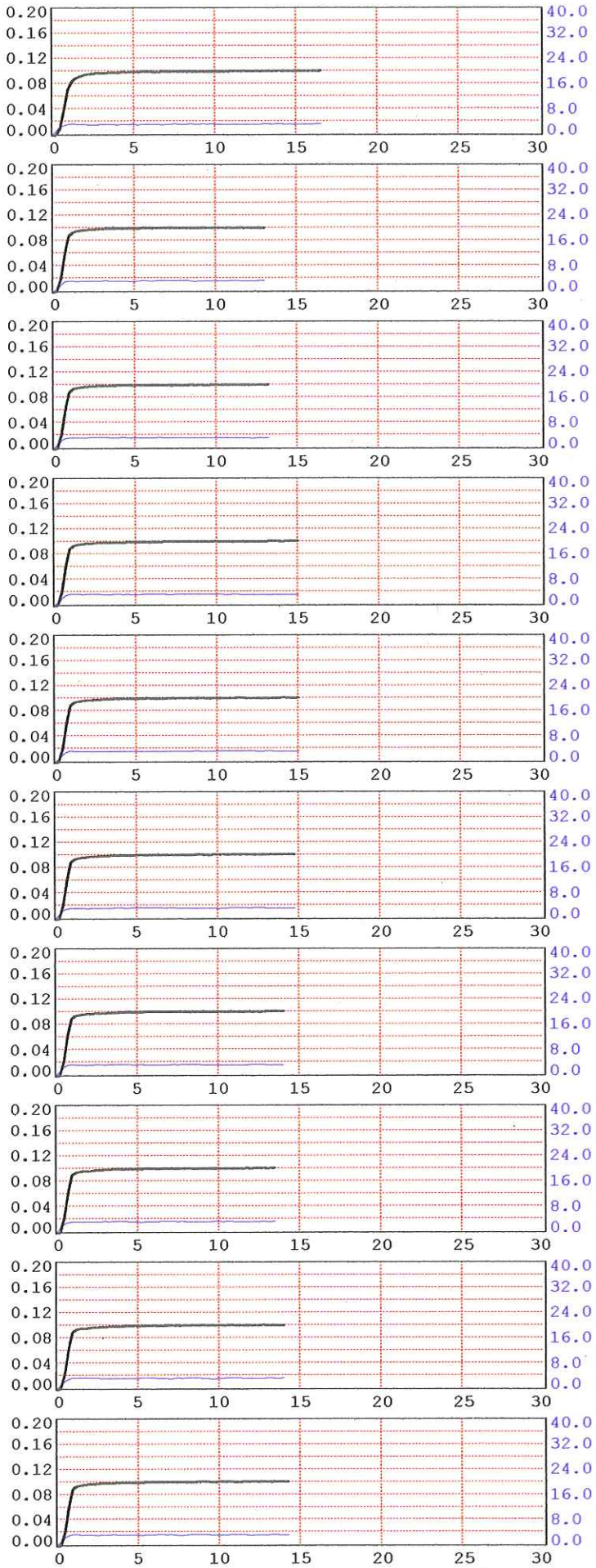
SUPERVISOR NAME:
AMANDA BOLDUC

Cal Check

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

BLANK TEST	0.000	14:23
CALIBRATION CHECK	PASSED	14:23
SIMULATOR VAPOR 34.4°C	0.100	14:23
SIMULATOR VAPOR 34.4°C	0.100	14:24
SIMULATOR VAPOR 34.4°C	0.099	14:25
SIMULATOR VAPOR 34.4°C	0.100	14:26
SIMULATOR VAPOR 34.5°C	0.100	14:28
SIMULATOR VAPOR 34.2°C	0.100	14:29
SIMULATOR VAPOR 34.4°C	0.100	14:30
SIMULATOR VAPOR 34.4°C	0.100	14:31
SIMULATOR VAPOR 34.4°C	0.100	14:32
SIMULATOR VAPOR 34.4°C	0.100	14:33
BLANK TEST	0.000	14:34

Average = 0.099
Std Dev = 0.000



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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 102606

Date: 06/28/2012
Time: 14:41:48

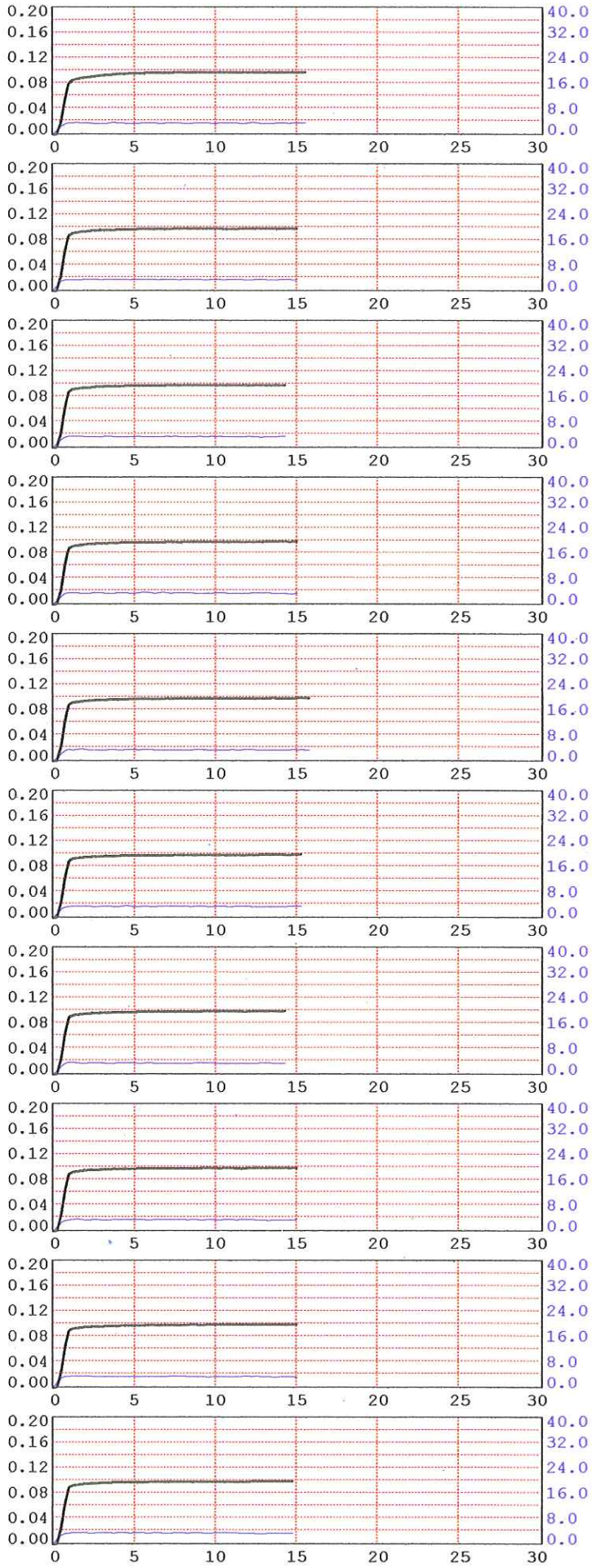
2nd Source cal check

SUPERVISOR NAME:
AMANDA BOLDUC

SOLUTION LOT #: GUTH11250
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	14:42
CALIBRATION CHECK	PASSED	14:42
SIMULATOR VAPOR 34.4°C	0.096	14:43
SIMULATOR VAPOR 34.4°C	0.098	14:44
SIMULATOR VAPOR 34.4°C	0.097	14:45
SIMULATOR VAPOR 34.2°C	0.098	14:46
SIMULATOR VAPOR 34.2°C	0.098	14:47
SIMULATOR VAPOR 34.4°C	0.098	14:48
SIMULATOR VAPOR 34.4°C	0.098	14:49
SIMULATOR VAPOR 34.4°C	0.098	14:50
SIMULATOR VAPOR 34.4°C	0.098	14:51
SIMULATOR VAPOR 34.2°C	0.098	14:53
BLANK TEST	0.000	14:53

Average = 0.097
Std Dev = 0.000



CALIBRATION REPORT

DataMaster DMT: 102606
Calibration Date: 06/29/2012
Calibrated by: AMANDA BOLDUC
Lot: 12-71-100

Ca	=	0.100				
CAL	=	0.947836	0.800	<=	CAL	< 1.200
b1	=	0.001	0.000	<=	b1	< 0.004
b2	=	0.004	0.002	<=	b2	< 0.010
b3	=	0.000	0.000	<=	b3	< 0.004
Xq	=	0.082	0.050	<=	Xq	< 0.200
a21	=	1.138544	1.050	<=	a21	< 1.300
a31	=	0.452725	0.300	<=	a31	< 0.800

Performed by _____ Date 06/29/2012

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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 102606

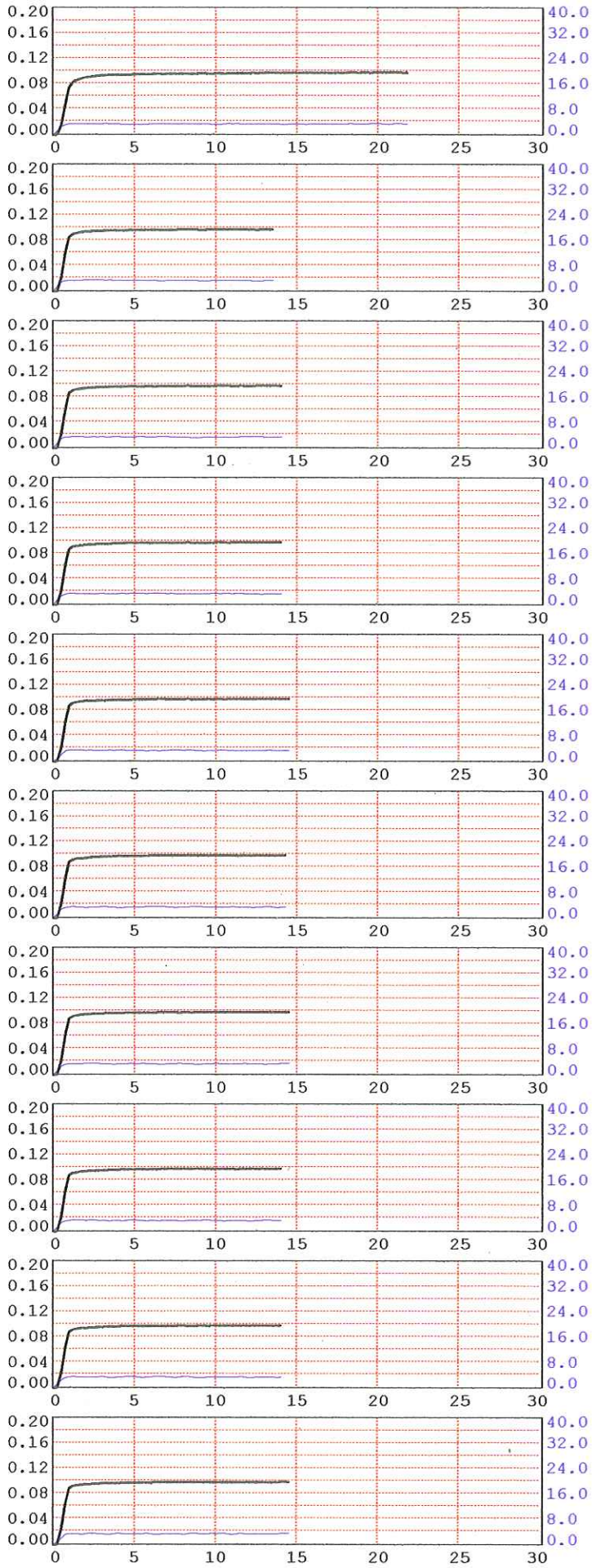
Date: 06/29/2012
Time: 10:26:40

SUPERVISOR NAME:
ALB CAL CHECK

SOLUTION LOT #: GUTH 11250
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	10:27
CALIBRATION CHECK	PASSED	10:27
SIMULATOR VAPOR 34.4°C	0.097	10:28
SIMULATOR VAPOR 34.4°C	0.097	10:29
SIMULATOR VAPOR 34.4°C	0.097	10:30
SIMULATOR VAPOR 34.2°C	0.097	10:31
SIMULATOR VAPOR 34.4°C	0.097	10:32
SIMULATOR VAPOR 34.4°C	0.098	10:33
SIMULATOR VAPOR 34.2°C	0.098	10:34
SIMULATOR VAPOR 34.4°C	0.098	10:35
SIMULATOR VAPOR 34.4°C	0.098	10:36
SIMULATOR VAPOR 34.4°C	0.097	10:37
BLANK TEST	0.000	10:38

Average = 0.097
Std Dev = 0.000



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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 102606

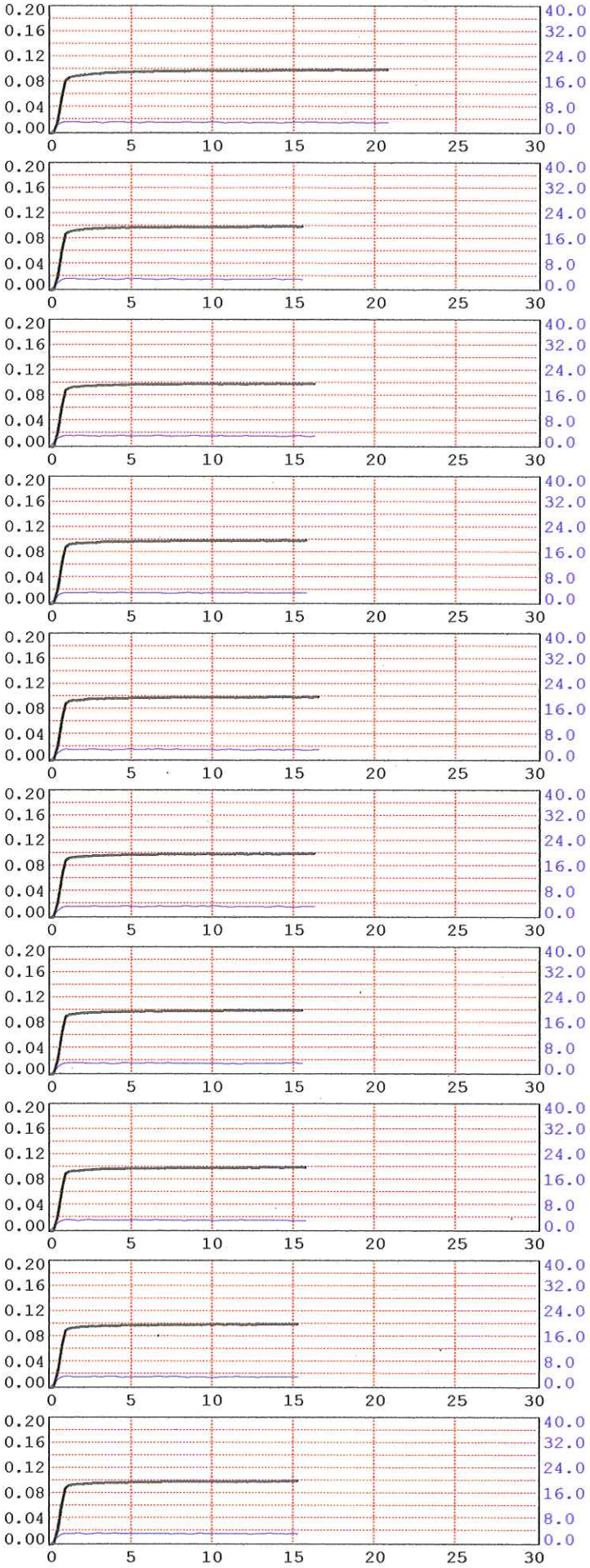
Date: 06/29/2012
Time: 10:41:15

SUPERVISOR NAME:
ALB CAL CHECK

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

BLANK TEST	0.000	10:42
CALIBRATION CHECK	PASSED	10:42
SIMULATOR VAPOR 34.2°C	0.098	10:42
SIMULATOR VAPOR 34.5°C	0.099	10:43
SIMULATOR VAPOR 34.2°C	0.098	10:44
SIMULATOR VAPOR 34.4°C	0.098	10:46
SIMULATOR VAPOR 34.4°C	0.098	10:47
SIMULATOR VAPOR 34.4°C	0.099	10:48
SIMULATOR VAPOR 34.4°C	0.099	10:49
SIMULATOR VAPOR 34.4°C	0.099	10:50
SIMULATOR VAPOR 34.4°C	0.099	10:51
SIMULATOR VAPOR 34.4°C	0.099	10:52
BLANK TEST	0.000	10:53

Average = 0.098
Std Dev = 0.000



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ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 102606

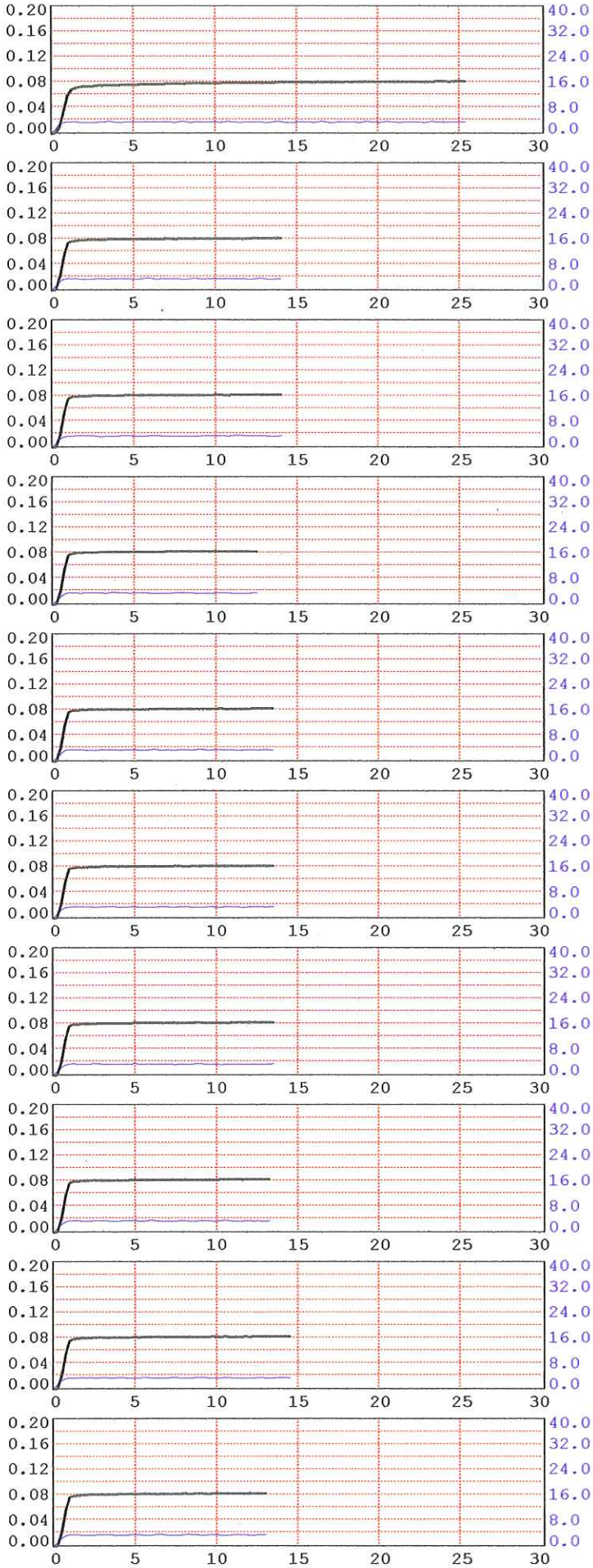
Date: 06/29/2012
Time: 12:11:28

SUPERVISOR NAME:
RD INTERFERENCE TEST

SUB 6/29/12

SOLUTION LOT #: 12-79-08A1
SOLUTION CONCENTRATION: 0.079

BLANK TEST	0.000	12:12
CALIBRATION CHECK	PASSED	12:12
Xq = 0.083 (0.64%)		
SIMULATOR VAPOR 34.4°C	0.081	12:12
X[1] = 0.0812 (-0.0042) (0.0019)		
SIMULATOR VAPOR 34.4°C	0.081	12:14
X[1] = 0.0815 (-0.0048) (0.0014)		
SIMULATOR VAPOR 34.4°C	0.082	12:15
X[1] = 0.0822 (-0.0047) (0.0007)		
SIMULATOR VAPOR 34.4°C	0.082	12:16
X[1] = 0.0824 (-0.0047) (0.0013)		
SIMULATOR VAPOR 34.4°C	INTERFERENCE	12:17
X[1] = 0.0819 (-0.0053) (0.0007)		
SIMULATOR VAPOR 34.2°C	0.081	12:18
X[1] = 0.0818 (-0.0050) (0.0010)		
SIMULATOR VAPOR 34.4°C	0.081	12:19
X[1] = 0.0818 (-0.0050) (0.0009)		
SIMULATOR VAPOR 34.4°C	0.082	12:20
X[1] = 0.0822 (-0.0046) (0.0011)		
SIMULATOR VAPOR 34.4°C	0.082	12:21
X[1] = 0.0821 (-0.0050) (0.0008)		
SIMULATOR VAPOR 34.4°C	0.082	12:22
X[1] = 0.0821 (-0.0050) (0.0005)		
BLANK TEST	0.000	12:23



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CALIBRATION REPORT

DataMaster DMT: 102606
Calibration Date: 07/02/2012
Calibrated by: AMANDA BOLDUC
Lot: 12-71-100

Ca	=	0.100				
CAL	=	0.959827	0.800	<=	CAL	< 1.200
b1	=	0.001	0.000	<=	b1	< 0.004
b2	=	0.005	0.002	<=	b2	< 0.010
b3	=	0.000	0.000	<=	b3	< 0.004
Xq	=	0.082	0.050	<=	Xq	< 0.200
a21	=	1.133398	1.050	<=	a21	< 1.300
a31	=	0.451497	0.300	<=	a31	< 0.800

Performed by Amanda Bolduc Date 07/02/2012

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 102606

Date: 07/02/2012
Time: 08:37:40

SUPERVISOR NAME:
ALB INTERFERANCE TEST

SOLUTION LOT #: 12-79-08A1
SOLUTION CONCENTRATION: 0.079

```
BLANK TEST                        0.000   08:38
CALIBRATION CHECK               PASSED    08:38
  Xq  = 0.082   (0.11%)
SIMULATOR VAPOR 34.4°C            0.081   08:39
  X[1] = 0.0816 (-0.0042)  (0.0003)
SIMULATOR VAPOR 34.4°C            0.081   08:40
  X[1] = 0.0819 (-0.0049)  (-0.0002)
SIMULATOR VAPOR 34.4°C            0.082   08:41
  X[1] = 0.0823 (-0.0049)  (-0.0002)
SIMULATOR VAPOR 34.4°CINTERFERENCE 08:42
  X[1] = 0.0813 (-0.0052)  (-0.0001)
SIMULATOR VAPOR 34.2°CINTERFERENCE 08:43
  X[1] = 0.0820 (-0.0055)  (-0.0003)
SIMULATOR VAPOR 34.4°C            0.082   08:44
  X[1] = 0.0826 (-0.0048)  (0.0000)
SIMULATOR VAPOR 34.2°C            0.082   08:45
  X[1] = 0.0824 (-0.0045)  (-0.0003)
SIMULATOR VAPOR 34.4°C            0.082   08:46
  X[1] = 0.0827 (-0.0049)  (-0.0003)
SIMULATOR VAPOR 34.4°CINTERFERENCE 08:47
  X[1] = 0.0826 (-0.0054)  (-0.0002)
SIMULATOR VAPOR 34.4°CINTERFERENCE 08:48
  X[1] = 0.0825 (-0.0056)  (0.0002)
BLANK TEST                        0.000   08:49
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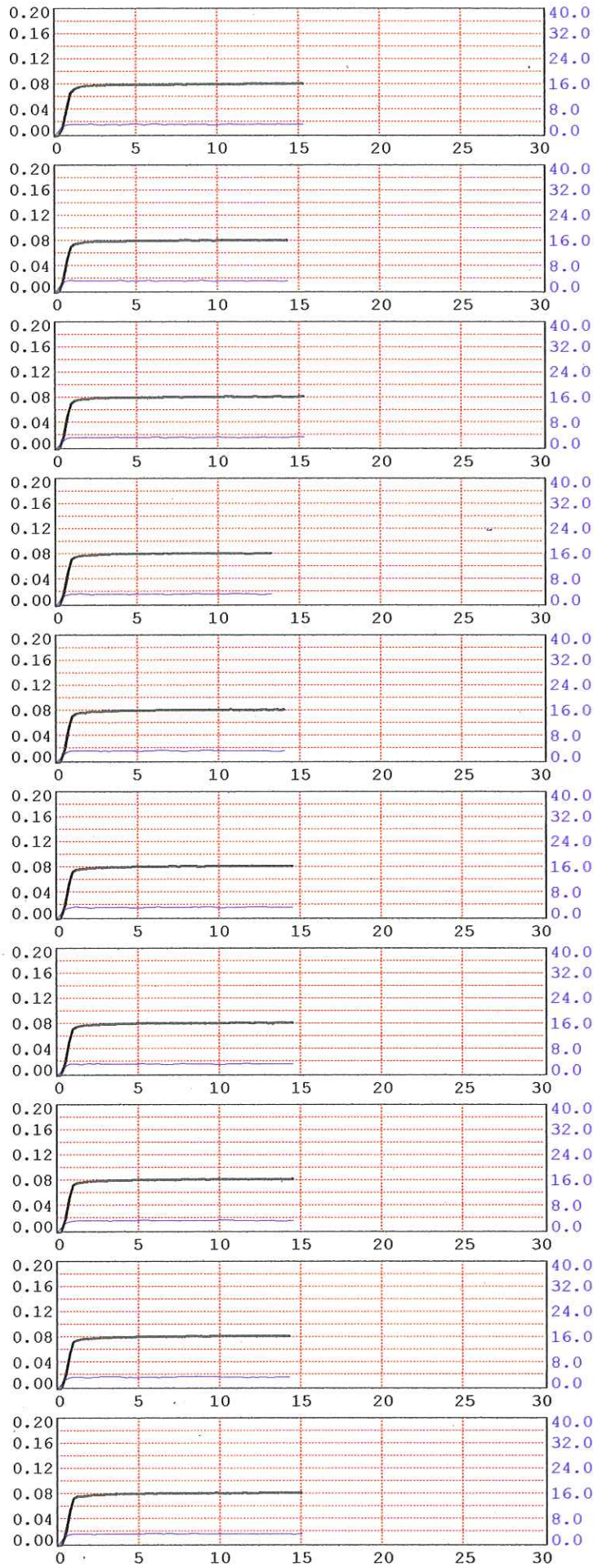

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DataMaster DMT Serial Number 102606

Power Up	CAL Factor	In-House & 2nd Source Calibration Check: NIST Temp. °C	Lot. #	Result (g/210L)	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
Completed 8-24-11 [illegible] SRM 08/25/11	0.995275 [illegible] 8-24-11 SRM 08/25/11	33.9	11-39-100	0.101 8-24-11 [illegible] SRM 08/25/11	67557 09/01/11 SRM [illegible]	[illegible] 8-24-11 SRM 08/25/11	[illegible] 8-25-11 90% SRM	8-26-11 100% [illegible] SRM	[illegible] 8-30-11 100% SRM 08/30/11	[illegible] 80% 8-25-11 SRM	100% [illegible] 8-26-11 SRM	[illegible] 100% 8-30-11 SRM	100% [illegible] 8-26-11 SRM
		34.0°C	GUTH 11050	0.102 8-24-11 [illegible] SRM 08/25/11									

Also ran 8/26/11 100% [illegible] 9/1/11

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)
[illegible] 8-26-11 analyzed 8/25/11 SRM 08/26/11	[illegible] 8-26-11 SRM	[illegible] 8-26-11 SRM	[illegible] 8-30-11 SRM	[illegible] 8-30-11 SRM	[illegible] 8-30-11 SRM	[illegible] 34.0°C 8-30-11	GUTH 11050	0.103 [illegible] 8-30-11
						34.0	11-39-100	0.103 [illegible] 8-30-11

Notes: See TSI 8-23-11 [illegible]
Chopper Motor replaced and detector replaced [illegible] 8-24-11 SRM 08/25/11
Power up procedure ~~restarted~~ [illegible] 8-24-11 redone after repairs
Cal Soln. NIST temp = 34.0°C [illegible] 8-24-11 (VT-1 SRM) SRM 08/25/11
H_2O NIST Temp = 34.0°C [illegible] 8-24-11 SRM 08/25/11
0.01 Acetone/0.080 EtOH on 8-25-11 (20% int. detection) [illegible] 8-25-11 Passing 90% w/ fresh soln. [illegible] 8-25-11 SRM
Software updated 8/26/11 for sup/RA ability to print Log on History [illegible]
0.01 Acetone/0.04 EtOH on 8/25/11 0900 am (20% detection) 8/25/11 14:14 80% detection [illegible] 9/1/11

Analyst: [illegible] 8/31/11 Reviewer: [illegible] 9/1/11 Reviewer: [illegible] 09/09/11