Woodstock PD 100152

TABLE OF CONTENTS

Section 1	Results
Section 2	Power Up Tests
Section 3	Linearity Tests
Section 4	Interference Tests
Section 5	Final Calibration Check Tests
Section 6	Error Reports

Packing List
From: National Patent Analytical Systems Inc.
2090 Harrington Mem. Rd., Mansfield, Ohio 44903

Cust No. VT1678J **Ord Date** 8/19/11
Sales Order No. 44569

Ship Date 9/2/11
Packing List No. 68831

Cust Purch Ord No. KURT KIMBLE

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 100152

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 100152						None Given	No Draw # / NONE / No Date
Serial Nos.	100152						

Opened 09/13/11 [illegible]

QA
100
9-1-11

National Patent Analytical Systems, Inc.

On this date 8/23/11, NPAS received instrument # 100152.

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. 8/31/11

Print Name of Reviewer: DAVID R ADOMSKI

Signature of Reviewer and Date: David Radomski 9/2/11

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

DataMaster DMT Serial Number 100152

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)									
Power-up Complete 9-14-11	0.963740 9-14-11	34.1	GUTH 11050	0.098 9-14-11	G7143 9-21-11	9-15-11	100% 9-14-11	100% 09/16/11	100% 09/16/11	100% 09/15/11	100% 9-19-11	100% 9-19-11	100% 09/19/11
		34.1	11-39-100	0.099 9-14-11					9-19-11				

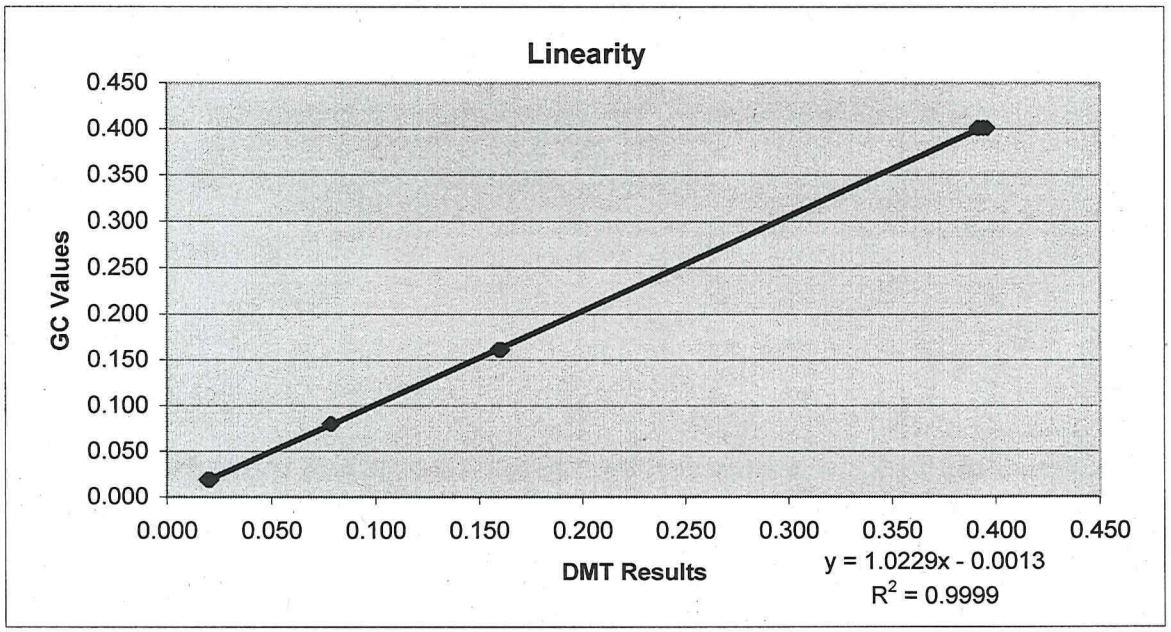
Linearity Test #1	Linearity Test #2	Linearity Test #3	Linearity Test #4	Linearity Test #5	Data Download	In-House & 2nd Source Calibration Check		
						NIST Temp.°C	Lot. #	Result (g/210L)
09/15/11	09/16/11	09/16/11	9-19-11	9-19-11	9-19-11	34.0	GUTH 11050	0.099 9-19-11
						34.0	11-39-100	0.098 9-19-11

Notes: Power-Up started 09/13/11
Calibration solution NIST = 34.0°C 9-14-11
H_2O for calibration NIST temp: 34.0°C 09/14/11

Analyst: 09/20/11 **Reviewer:** 9/20/11 **Reviewer:** 9-21-11

DataMaster DMT Serial Number 100152

Operator	Date	GC Value	DMT Average	Std Dev	% Recovery
SRM	9/15/2011	0.019	0.020	0.000	105
SRM	9/15/2011	0.080	0.079	0.000	98
SRM	9/15/2011	0.161	0.159	0.000	98
SRM	9/15/2011	0.401	0.392	0.000	97
SRM	9/16/2011	0.019	0.021	0.000	110
SRM	9/16/2011	0.080	0.079	0.000	98
SRM	9/16/2011	0.161	0.161	0.000	100
SRM	9/16/2011	0.401	0.392	0.000	97
SRM	9/16/2011	0.019	0.020	0.000	105
SRM	9/16/2011	0.080	0.079	0.000	98
SRM	9/16/2011	0.161	0.160	0.000	99
SRM	9/16/2011	0.401	0.391	0.001	97
KLK	9/19/2011	0.019	0.019	0.000	100
KLK	9/19/2011	0.080	0.078	0.000	97
KLK	9/19/2011	0.161	0.160	0.000	99
KLK	9/19/2011	0.401	0.396	0.000	98
KLK	9/19/2011	0.019	0.019	0.001	100
KLK	9/19/2011	0.080	0.079	0.000	98
KLK	9/19/2011	0.161	0.159	0.000	98
KLK	9/19/2011	0.401	0.394	0.000	98
			Average	0.0001	100
			Std Dev	0.0003	
			Range	0.000 - 0.001	97 - 110



Log On Record History

Test Date	Test Time	Name
09/19/2011	09:33:12	Kirk Kimball
09/19/2011	08:55:33	Steven Merrill
09/19/2011	07:16:57	Kirk Kimball
09/19/2011	06:49:50	Kirk Kimball
09/16/2011	11:42:27	Steven Merrill
09/16/2011	07:01:12	Steven Merrill
09/15/2011	14:59:46	Steven Merrill
09/15/2011	14:31:33	Kirk Kimball
09/15/2011	09:14:52	Steven Merrill
09/15/2011	08:33:55	Kirk Kimball
09/14/2011	13:21:18	Kirk Kimball
09/14/2011	12:22:27	Kirk Kimball
09/14/2011	09:50:16	Steven Merrill
09/14/2011	07:21:02	Kirk Kimball

SECTION 2

POWER UP TESTS

DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date:
Certification Date:
Installation Date:
Test Date: 09/14/2011
Test Time: 13:21:19

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 = 0.0°C

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

PUMP INFO
Flow Rate = 5.299 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0018	0.0055
MIN(V)	-0.0004	0.0018

FILTER INFO
Filter 1 0.005 Zero = true
Filter 2 0.356 Zero = true
Filter 3 0.979 Zero = true

CALIBRATION CHECK
Xq = 0.079 0.00%

CALIBRATION REPORT

DataMaster DMT: 100152
Calibration Date: 09/14/2011
Calibrated by: KIRK L KIMBALL
Lot: 11-37-100

```
Ca  = 0.100
CAL = 0.963740   0.800  <= CAL < 1.200
b1  = 0.000      0.000  <=  b1 < 0.004
b2  = 0.005      0.002  <=  b2 < 0.010
b3  = 0.000      0.000  <=  b3 < 0.004
Xq  = 0.078      0.050  <=  Xq < 0.200
a21 = 1.202294   1.050  <= a21 < 1.300
a31 = 0.374195   0.300  <= a31 < 0.800
```

Performed by _____ Date 09/14/2011

DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date:
Installation Date:
Test Date: 09/14/2011
Test Time: 13:35:02

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 = 34.2°C

SETTINGS
Lamp Voltage = 1.70 V
Cooler Voltage = 1.71 V
Bias Voltage = 80 V
Chopper Freq = 540 Hz

PUMP INFO
Flow Rate = 5.350 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	0.0047	0.0079
MIN(V)	0.0028	0.0065

FILTER INFO
Filter 1 0.005 Zero = true
Filter 2 0.361 Zero = true
Filter 3 0.983 Zero = true

CALIBRATION CHECK
Xq = 0.080 2.11%

ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/14/2011
Time: 13:37:05

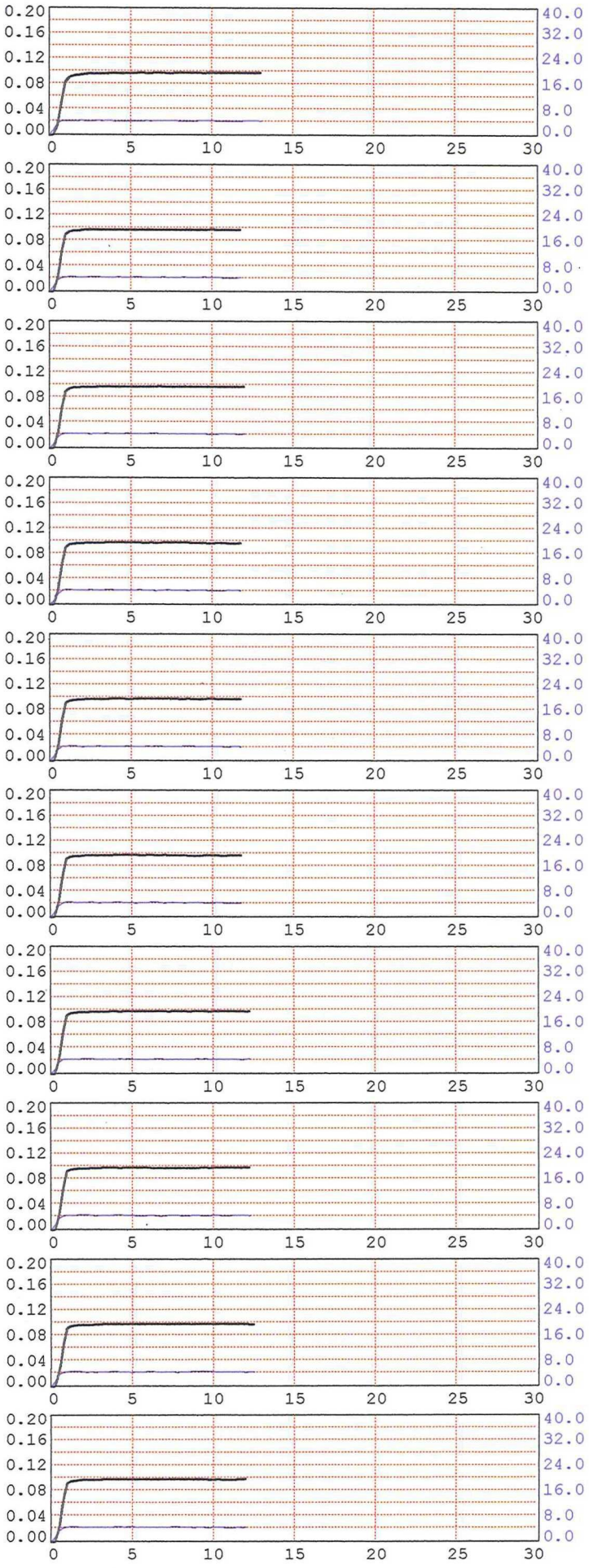
SUPERVISOR NAME:
KIRK L KIMBALL

SOLUTION LOT #: GUTH 11050
SOLUTION CONCENTRATION: 0.100

BLANK TEST	0.000	13:37
CALIBRATION CHECK	PASSED	13:38
SIMULATOR VAPOR 34.2°C	0.099	13:38
SIMULATOR VAPOR 34.2°C	0.098	13:39
SIMULATOR VAPOR 34.2°C	0.098	13:40
SIMULATOR VAPOR 34.2°C	0.098	13:41
SIMULATOR VAPOR 34.2°C	0.098	13:42
SIMULATOR VAPOR 34.1°C	0.099	13:43
SIMULATOR VAPOR 34.2°C	0.098	13:44
SIMULATOR VAPOR 34.1°C	0.100	13:45
SIMULATOR VAPOR 34.2°C	0.098	13:46
SIMULATOR VAPOR 34.2°C	0.099	13:47
BLANK TEST	0.000	13:48

Average = 0.098
Std Dev = 0.000

2nd Source Cal Check KLK 9-14-11



ACCURACY & PRECISION REPORT

STATE OF VERMONT

DataMater DMT: 100152

Date: 09/14/2011
Time: 14:07:14

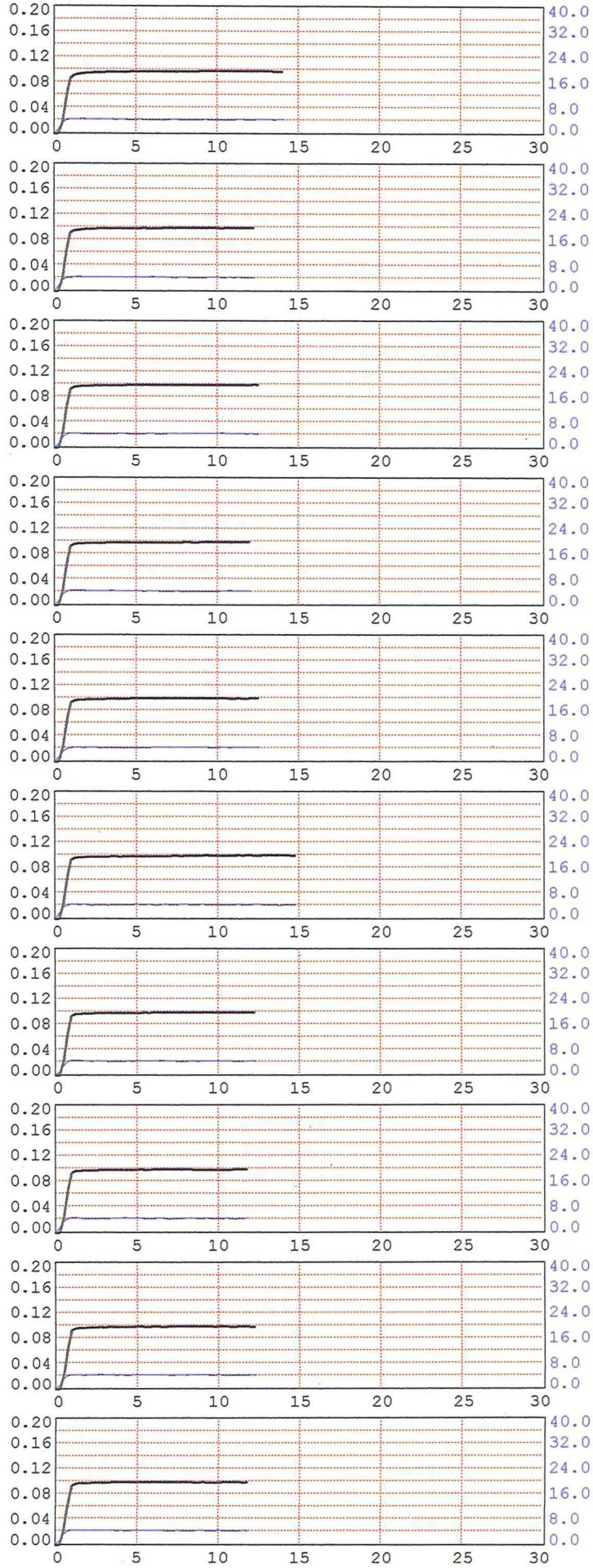
SUPERVISOR NAME:
KIRK L KIMBALL

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

BLANK TEST	0.000	14:08
CALIBRATION CHECK	PASSED	14:08
SIMULATOR VAPOR 34.0°C	0.098	14:08
SIMULATOR VAPOR 34.0°C	0.099	14:09
SIMULATOR VAPOR 33.9°C	0.099	14:10
SIMULATOR VAPOR 33.9°C	0.099	14:11
SIMULATOR VAPOR 34.0°C	0.100	14:12
SIMULATOR VAPOR 34.1°C	0.100	14:13
SIMULATOR VAPOR 34.0°C	0.099	14:14
SIMULATOR VAPOR 34.0°C	0.099	14:16
SIMULATOR VAPOR 34.0°C	0.098	14:17
SIMULATOR VAPOR 34.0°C	0.099	14:18
BLANK TEST	0.000	14:18

Average = 0.099
Std Dev = 0.000

In house
Cal Check
KLK
9-14-11



DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date:
Installation Date:
Test Date: 09/15/2011
Test Time: 08:33:57

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

TEMPERATURES

Sample Chamber = 48.8°C
Breath Tube = 48.0°C
Digital Sim = 33.9°C

SETTINGS
Lamp Voltage = 1.70 V
Cooler Voltage = 1.71 V
Bias Voltage = 80 V
Chopper Freq = 542 Hz

PUMP INFO
Flow Rate = 5.267 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	-0.0102	-0.0059
MIN(V)	-0.0114	-0.0075

FILTER INFO

Filter 1	-0.007	Zero = true
Filter 2	0.346	Zero = true
Filter 3	0.973	Zero = true

CALIBRATION CHECK
Xq = 0.078 0.22%

DIAGNOSTIC RESULT

DataMaster DMT: 100152
Location:
Calibration Date: 09/14/2011
Certification Date:
Installation Date:
Test Date: 09/15/2011
Test Time: 09:14:53

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 = 34.0°C

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

PUMP INFO
Flow Rate = 5.250 L/M

DETECTOR INFO

PUMP	ON	OFF
MAX(V)	-0.0096	-0.0051
MIN(V)	-0.0110	-0.0067

FILTER INFO

Filter 1	-0.007	Zero = true
Filter 2	0.347	Zero = true
Filter 3	0.975	Zero = true

CALIBRATION CHECK
Xq = 0.078 0.11%

CERTIFICATION REPORT

DataMaster DMT: 100152
Calibration Date: 09/14/2011
Certification Date: 09/15/2011
Certified by: STEVEN R MERRILL

Diagnostic Results

```
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   = 536 Hz

PUMP INFO
Flow Rate = 5.370 L/M

DETECTOR INFO
PUMP     ON        OFF
MAX(V)   -0.0199   -0.0163
MIN(V)   -0.0215   -0.0179

FILTER INFO
Filter 1  -0.018  Zero = true
Filter 2   0.337  Zero = true
Filter 3   0.954  Zero = true

CALIBRATION CHECK
Xq  = 0.079  1.11%
```

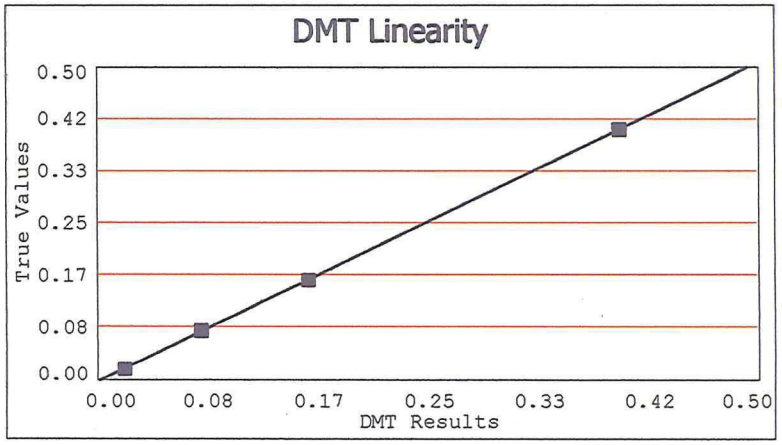
Options

```
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
0.019 g/210L Lot # 12-07-020	0.020 g/210L	0.0000
0.080 g/210L Lot # 12-11-080	0.078 g/210L	0.0000
0.161 g/210L Lot # 12-12-160	0.159 g/210L	0.0000
0.401 g/210L Lot # 12-08-400	0.394 g/210L	0.0000

$R^2 = 1$



Acetone Interference Test

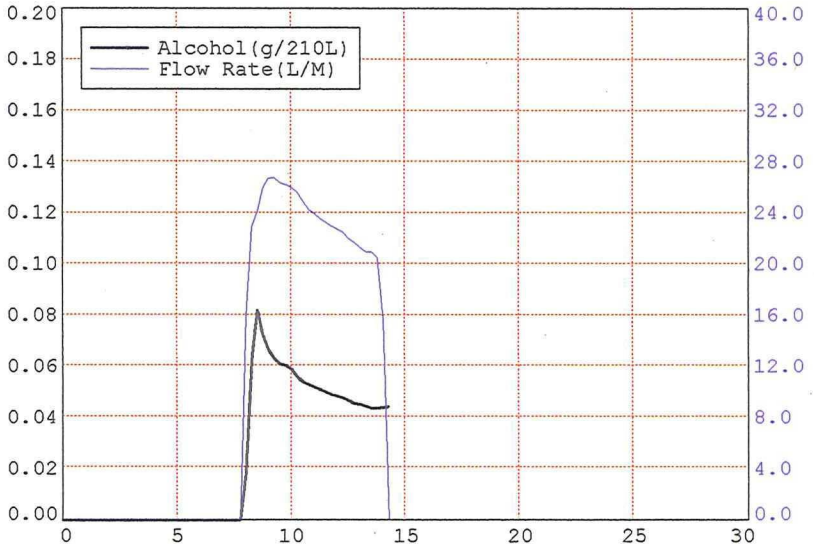
Lot # 12-09-080A1

Interference Detected

Mouth Alcohol Test

Mouth Alcohol Detected

NKZK completed 9-15-11



RF Detection Test

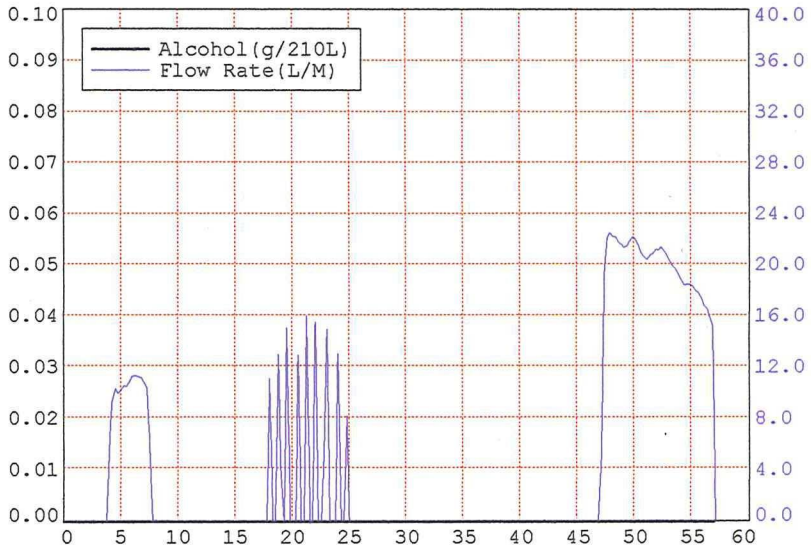
Passed

NKZK Completed 9-15-11

Sample Acceptance Test

Passed

Completed NKZK 9-15-11



CERTIFICATION PASSED

Performed by KLK/SRM Date 09/15/2011

Reviewed by [signature] Date 9/20/11