



GUTH LABORATORIES, INC.

590 NORTH 67th STREET • HARRISBURG, PA 17111-4811 • TELEPHONE: 717-564-5470

CERTIFICATE OF ANALYSIS

Certified Alcohol Reference Solution for Simulator

Random Samples of Lot Number **19040** of Alcohol Reference Solution for Simulator were analyzed by gas chromatography on **January 30, 2019**, using a Perkin Elmer Gas Chromatograph Autosystem XL S/N: 610N9030209, and found to contain **0.2414%** (w/vol) ethyl alcohol. The expiration date for this lot number is **January 29, 2021** at 11:59 PM.

When used in a calibrated Simulator, operating at $34^{\circ}\text{C} \pm .2^{\circ}\text{C}$, this solution will give a breath alcohol analysis instrument reading of **0.200 g/210L \pm 3%**.

The alcohol and water used in this solution were free of test interfering substances.

Ted L. Pauley, President
GUTH LABORATORIES, INC.

NIST Traceability:

Testing was conducted using Cerilliant Reference Standard lot number FN08101505 whose values are traceable to NIST.

All balances are calibrated annually by an outside agency using NIST traceable weights. Calibration verification is done prior to each use utilizing NIST traceable weights.

SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

Date: 03/05/2019
 Time: 14:19:29

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200

BLANK TEST	0.000	14:20
INTERNAL STANDARD	VERIFIED	14:20
EXTERNAL STANDARD	0.208	14:21
BLANK TEST	0.000	14:22
EXTERNAL STANDARD	0.206	14:23
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.206	14:24
BLANK TEST	0.000	14:25
EXTERNAL STANDARD	0.206	14:26
BLANK TEST	0.000	14:26
EXTERNAL STANDARD	0.206	14:27
BLANK TEST	0.000	14:28

Average = 0.2064
 Std Dev = 0.0009

Solution:

Cutn Lot 19040

Exp. 01/29/2021

Simulator:

Cutn S/N: DR4178

Calibrated 06/01/2018

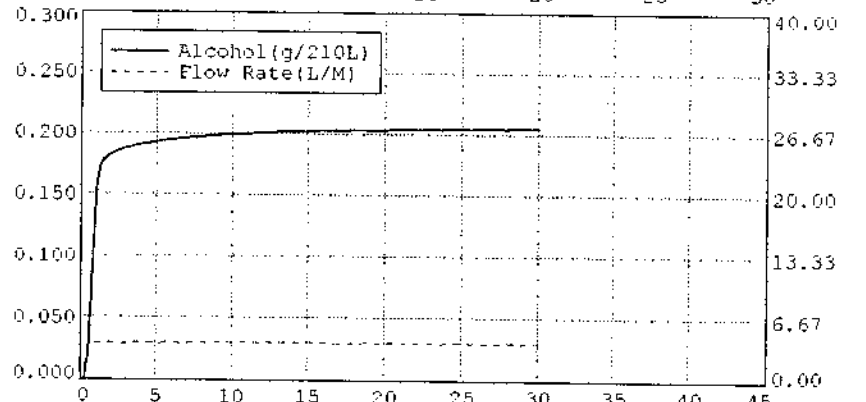
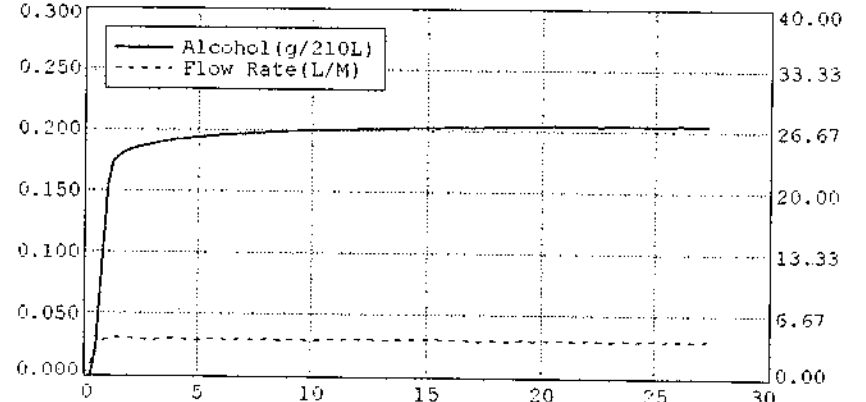
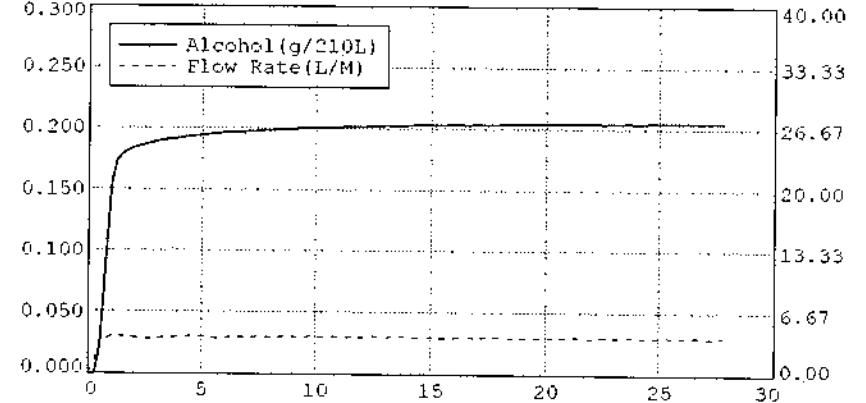
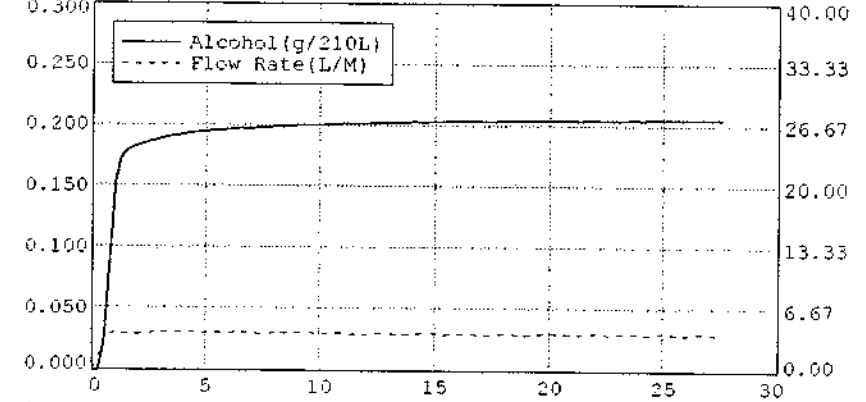
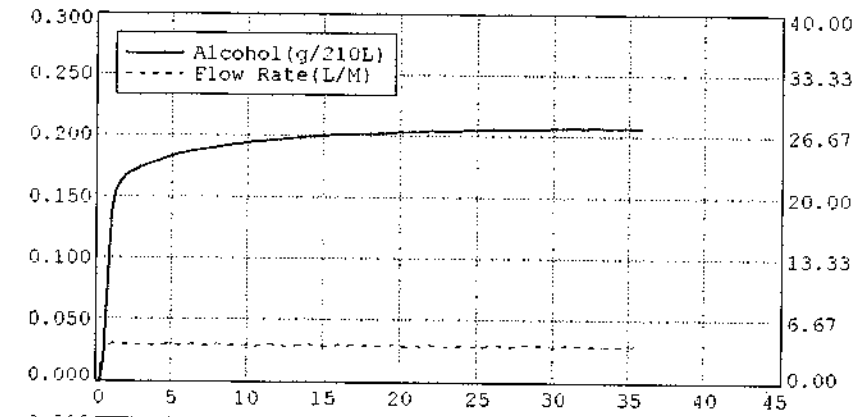
0.2064

0.2046

0.2030

AVA: 0.205

DMV 03/06/2019



SENSOR TEST

Department of Public Safety
 INTER dmt: 100411

03/05/2019
 14:43:58

SENSOR NAME:
 WALTON
 CAR'S #: 9508

AL STANDARD INFORMATION
 0.200

TEST	0.000	14:45
AL STANDARD	VERIFIED	14:45
AL STANDARD	0.205	14:46
TEST	0.000	14:47
AL STANDARD	0.205	14:47
TEST	0.000	14:48
AL STANDARD	0.205	14:49
TEST	0.000	14:50
AL STANDARD	0.202	14:50
TEST	0.000	14:51
AL STANDARD	0.206	14:52
TEST	0.000	14:53

= 0.2046
 = 0.0015

Solution:

Auto Lot 19040

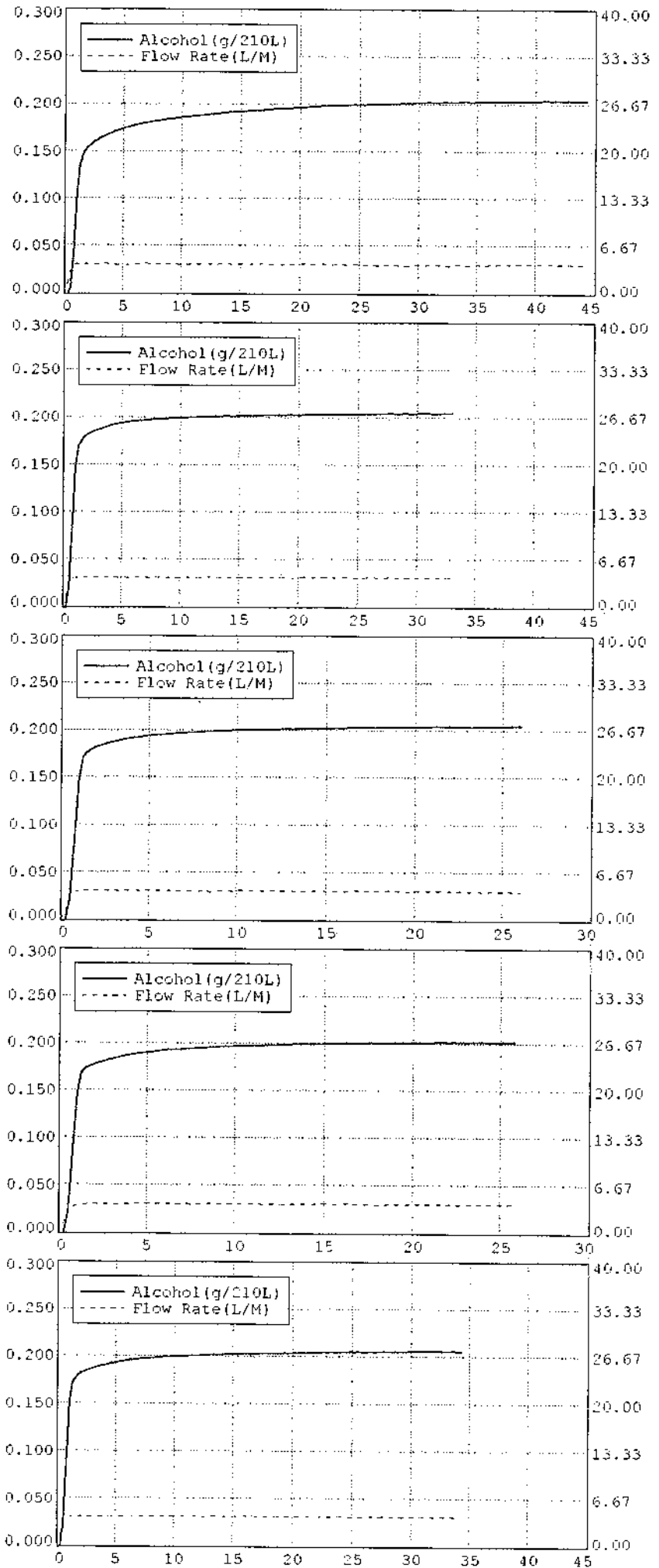
Exp. 01/29/²⁰²¹~~2020~~ JW 03/06/2019

Simulator:

Auto S/N: DR4178

Calibrated 06/01/2018

JW 03/06/2019



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 03/05/2019
 Time: 14:10:03

SUPERVISOR NAME:
 DEREK WALTON
 OPERATOR'S #: 9508

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.200

BLANK TEST	0.000	14:11
INTERNAL STANDARD	VERIFIED	14:11
EXTERNAL STANDARD	0.204	14:11
BLANK TEST	0.000	14:12
EXTERNAL STANDARD	0.203	14:13
BLANK TEST	0.000	14:14
EXTERNAL STANDARD	0.203	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.202	14:16
BLANK TEST	0.000	14:17
EXTERNAL STANDARD	0.203	14:17
BLANK TEST	0.000	14:18

Average = 0.2030
 Std Dev = 0.0007

Solution:

Guth Lot 19040

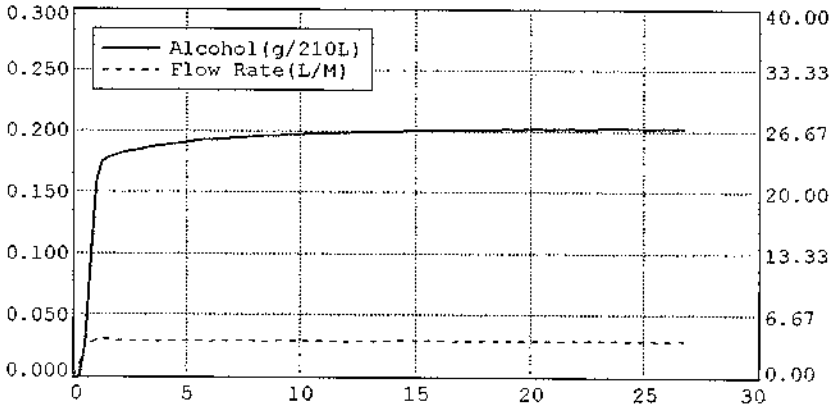
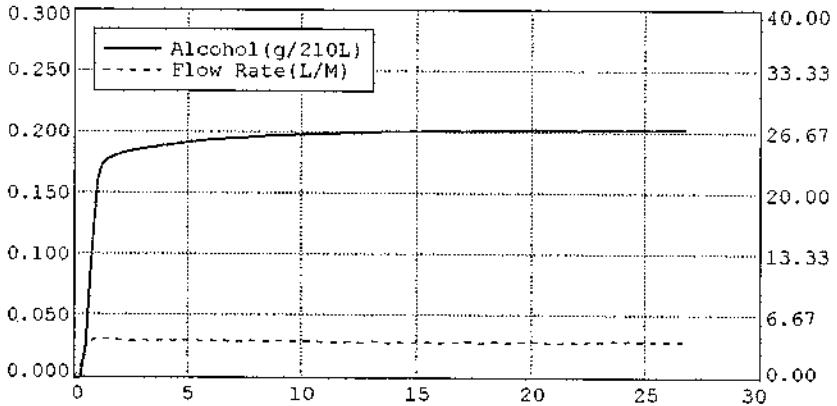
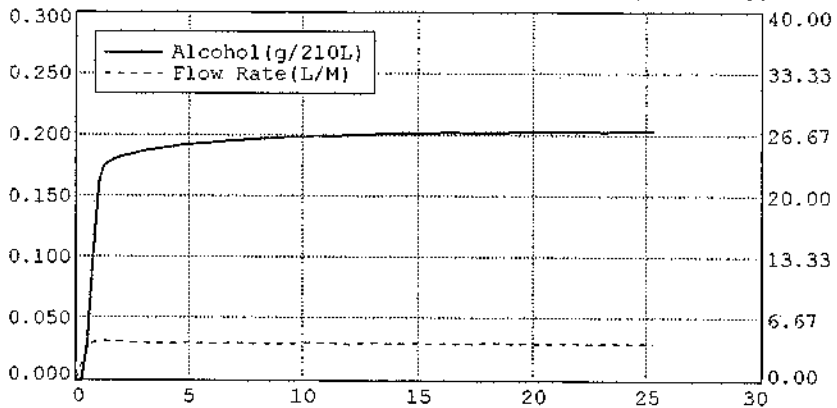
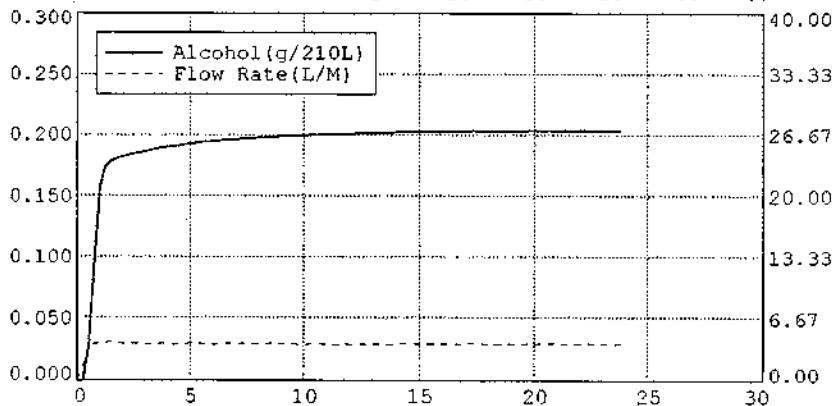
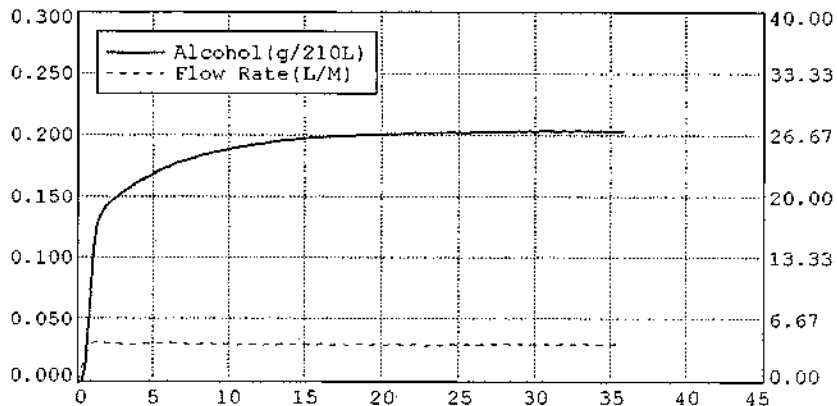
Exp. 01/29/2021

Simulator:

Guth S/N: DR4178

Calibrated 06/01/2018

DW 03/06/2019



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 03/04/2019
Time: 12:08:29

VERSIONS

DMT: 3.02
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.31 V PASSED
(1.30 V - 3.04 V)
Cooler Voltage = 1.89 V PASSED
(1.26 V - 2.94 V)
Bias Voltage = 79 V PASSED
(48 V - 112 V)
Chopper Freq = 536 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 30.3 in

PUMP INFO

Flow Rate = 4.861 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 V <= 0.010 V)
PUMP OFF PASSED
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.092 1.86% (0.00% - 4.00%) PASSED

In-house QC

JMV 03/04/2019

Technician Screen

DATAMASTER dmt: 100353

Date: 03/04/2019
Time: 12:20 PM

Temperatures (°C)
Sample Cell: 48.8°C
Breath Tube: 48.1°C

Current Barometer 30.2 in
Volume (Ltr) 0.00

Settings
Lamp: 2.31 V
Bias: 79 V
Cooler: 1.89 V
Chopper: 534 Hz

Voltages (V)
Flow: 1.06 V
Detector: -0.007 V

LINEARITY CHECK

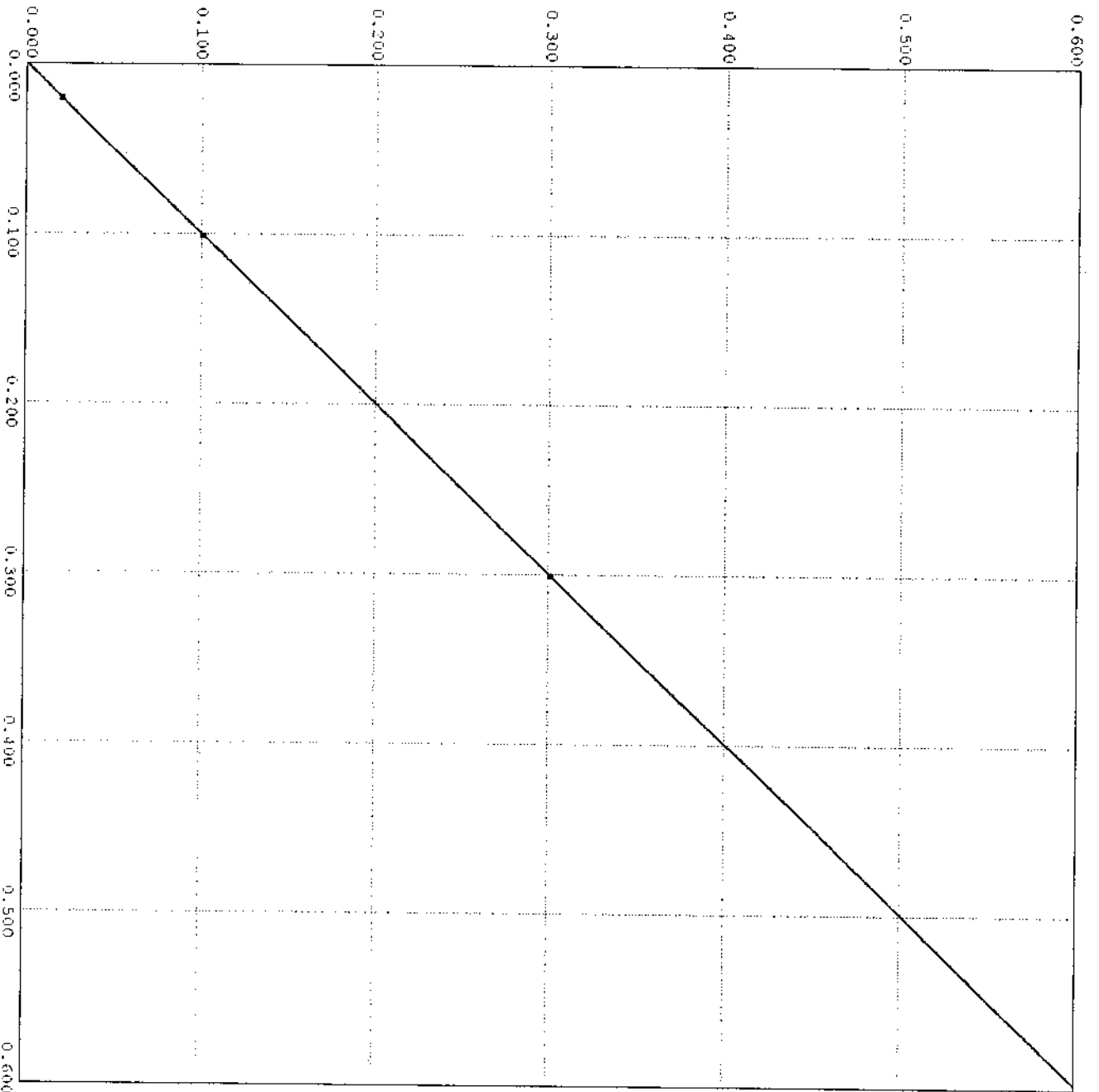
Alaska Department of Public Safety
DATAMASTER dmt: 100353

Date: 03/04/2019
Time: 12:24:05

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.101	0.1018	0.0004
0.300	0.3020	0.0010

SLOPE = 1.004035
R² = 0.999996



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

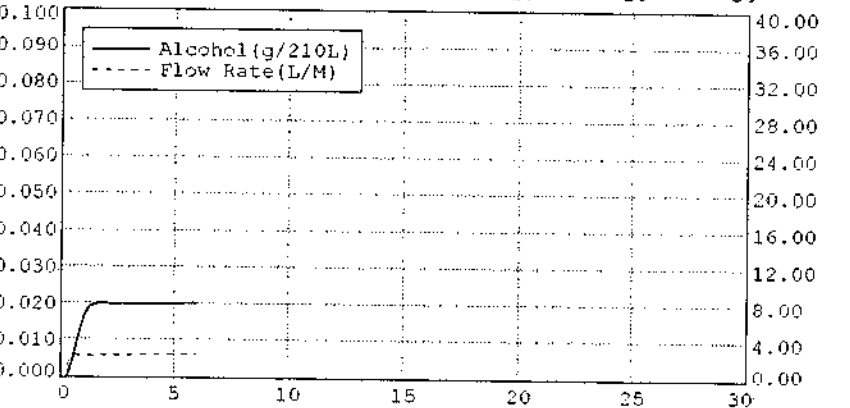
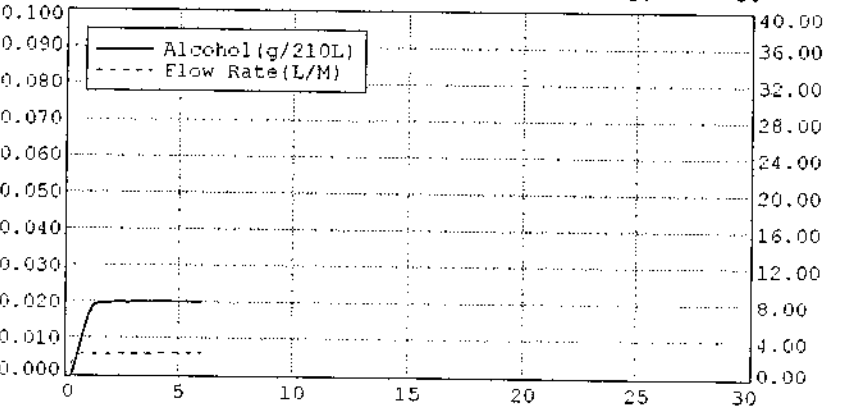
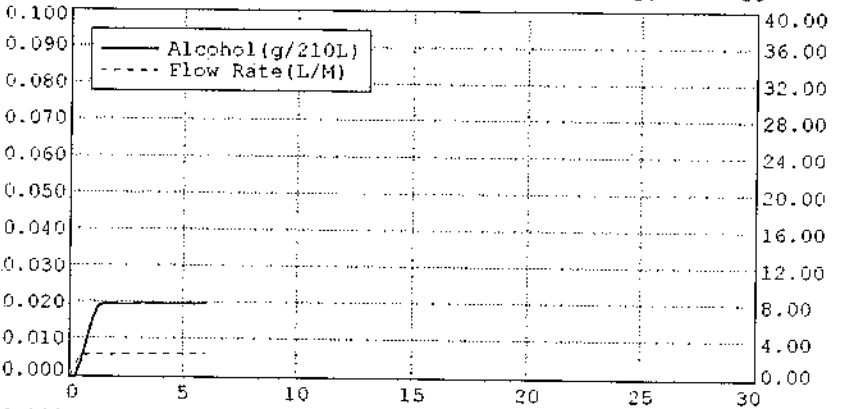
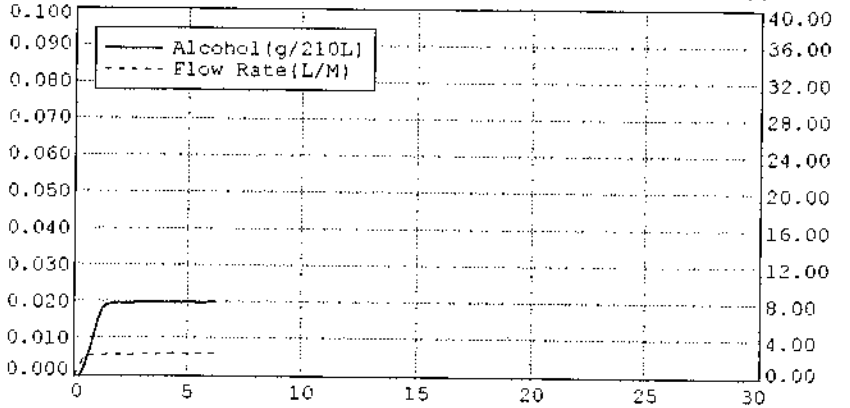
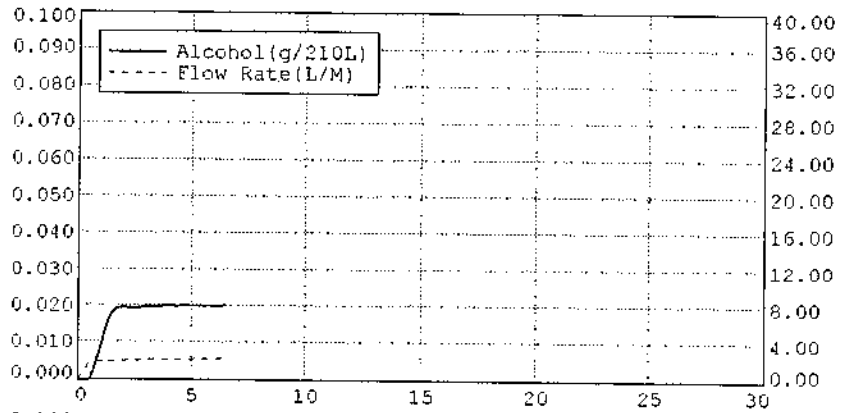
Date: 03/04/2019
 Time: 12:24:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 30.23: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 904 psi

BLANK TEST	0.000	12:25
INTERNAL STANDARD	VERIFIED	12:25
EXTERNAL STANDARD	0.021	12:25
BLANK TEST	0.000	12:26
EXTERNAL STANDARD	0.021	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.021	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.021	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.021	12:30
BLANK TEST	0.000	12:30

Average = 0.0210
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

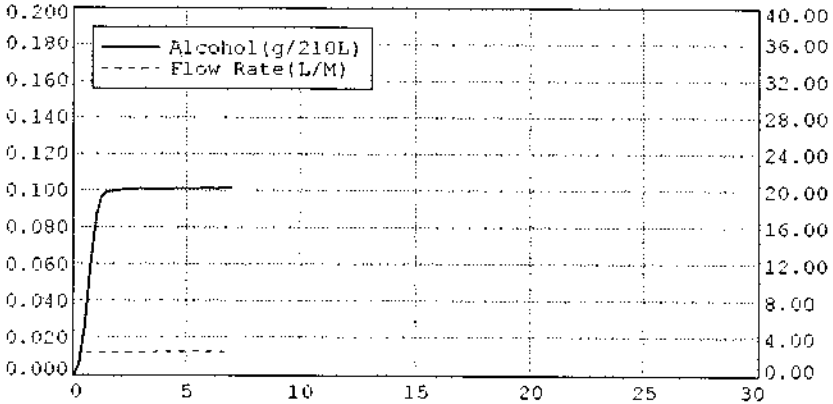
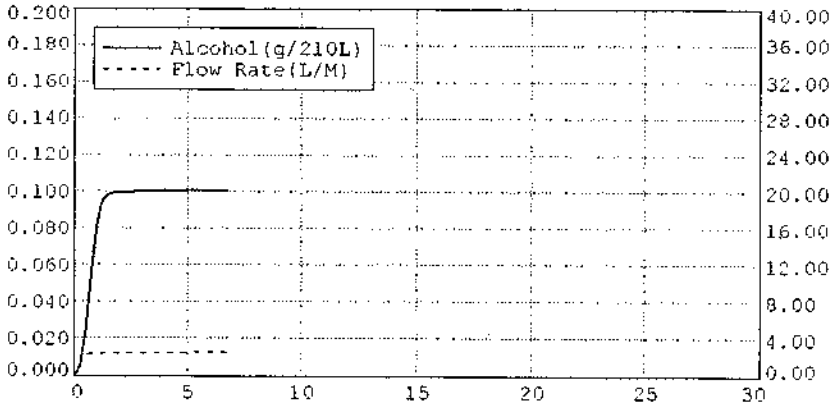
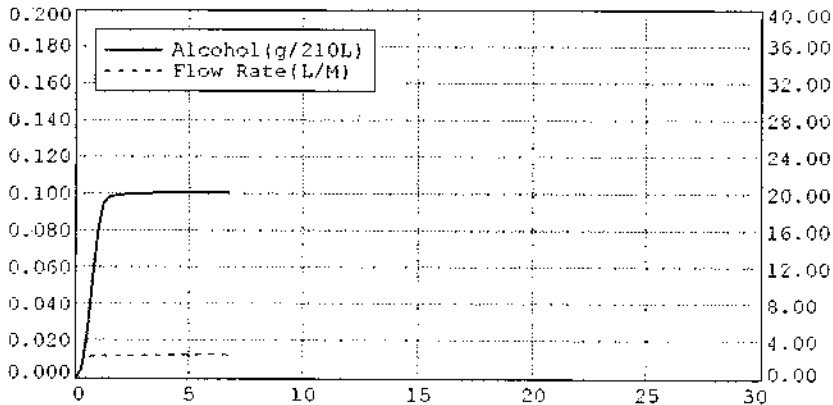
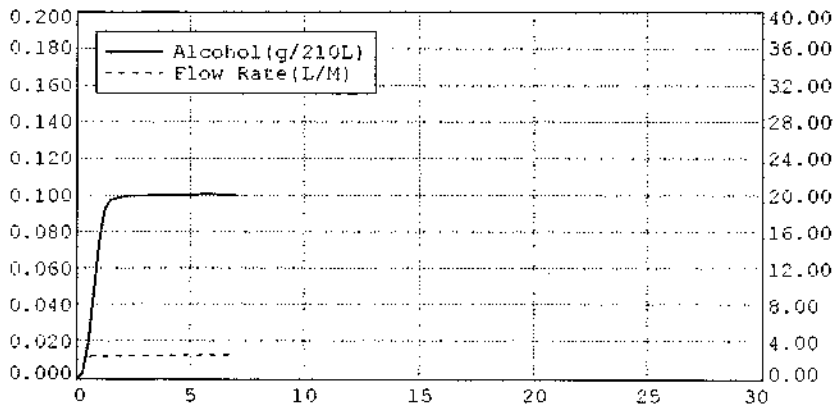
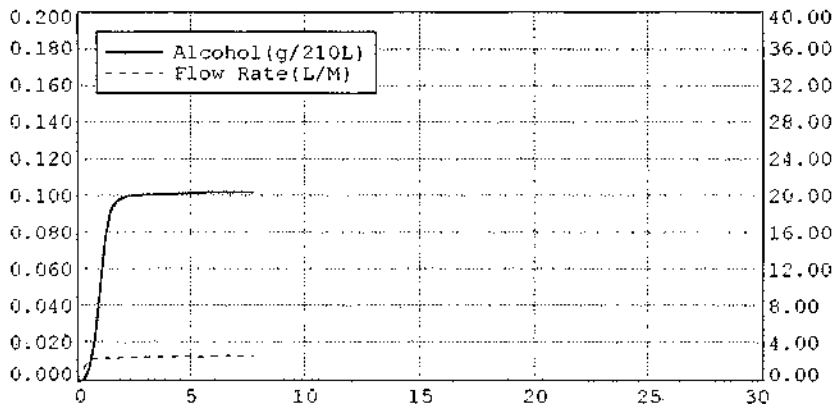
Date: 03/04/2019
 Time: 12:33:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 30.23: 0.101
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 1041 psi

BLANK TEST	0.000	12:35
INTERNAL STANDARD	VERIFIED	12:35
EXTERNAL STANDARD	0.102	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.101	12:36
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.102	12:37
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.102	12:39
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.102	12:40
BLANK TEST	0.000	12:41

Average = 0.1018
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100353

Date: 03/04/2019
 Time: 12:48:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17350
 EXPIRATION: 10/11/2019

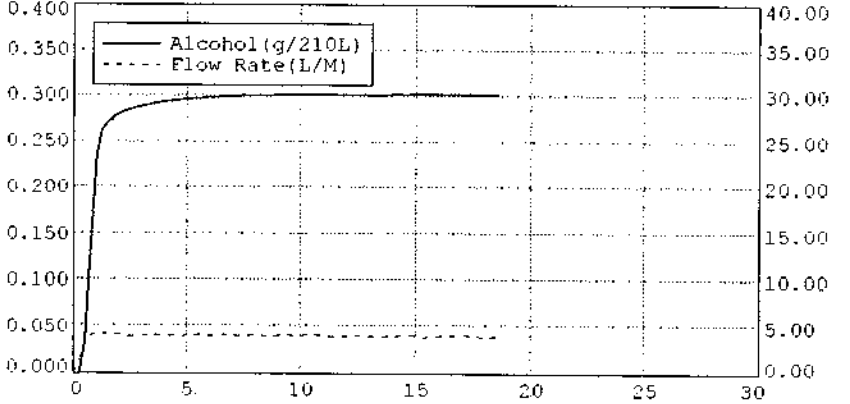
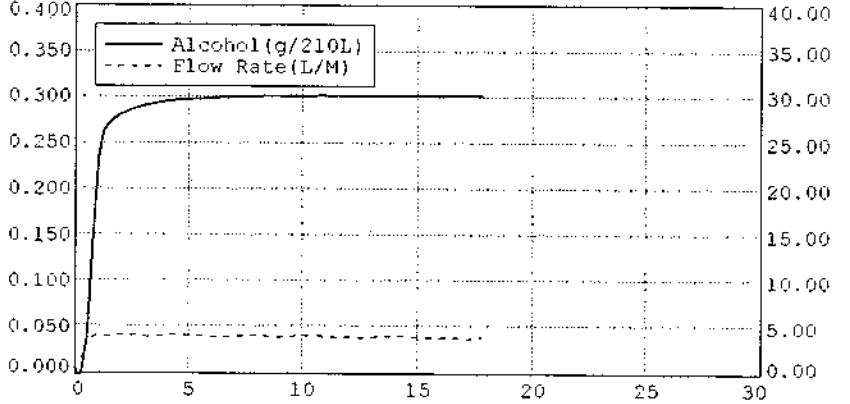
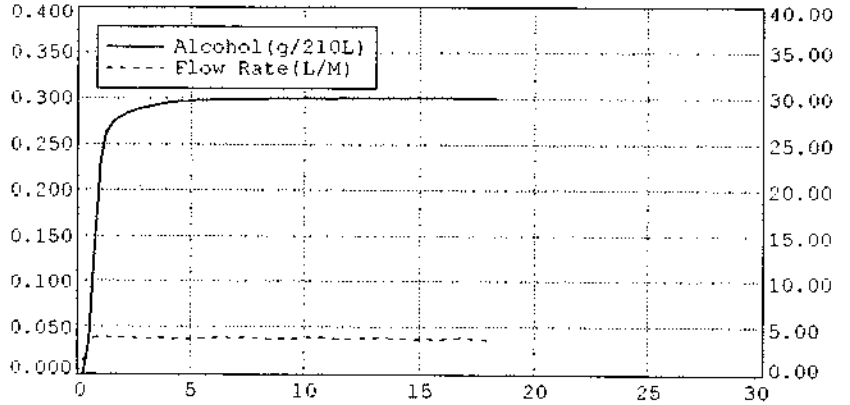
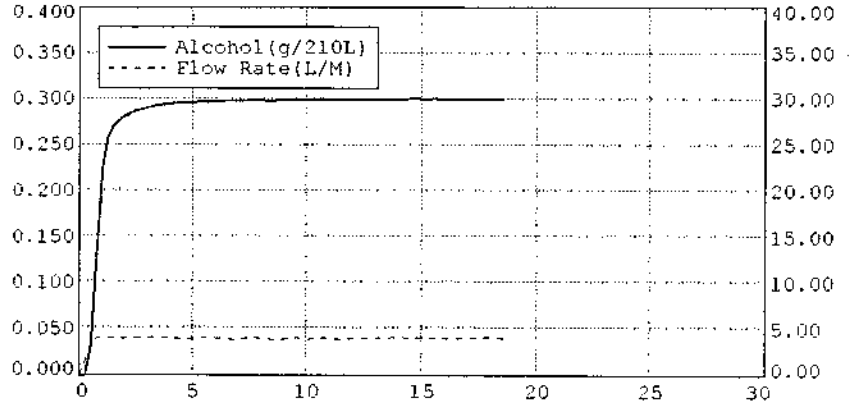
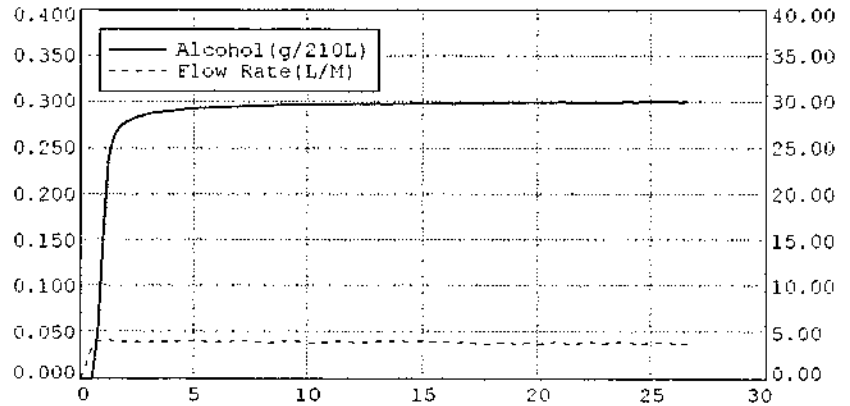
BLANK TEST	0.000	12:50
INTERNAL STANDARD	VERIFIED	12:50
EXTERNAL STANDARD	0.301	12:50
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.301	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.302	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.303	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.303	12:56
BLANK TEST	0.000	12:57

Average = 0.3020
 Std Dev = 0.0010

Simulator S/N SD1176

Calibrated: 06/01/2018

MV 03/04/2019



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100411

Date: 03/04/2019
Time: 12:05:32

VERSIONS
DMT: 3.02
PIC: 3.02
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 48.1°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.87 V PASSED
(1.10 V - 2.58 V)
Cooler Voltage = 1.87 V PASSED
(1.06 V - 2.48 V)
Bias Voltage = 80 V PASSED
(48 V - 112 V)
Chopper Freq = 538 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 30.2 in

PUMP INFO

Flow Rate = 5.303 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 V <= 0.010 V)
PUMP OFF PASSED
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.087 1.32% (0.00% - 4.00%) PASSED

In-house QC

JM 03/04/2019

Technician Screen

DATAMASTER dmt: 100411

Date: 03/04/2019
Time: 12:16 PM

Temperatures (°C)

Sample Cell: 48.9°C
Breath Tube: 48.1°C

Current Barometer 30.2 in
Volume (Ltr) 0.00

Settings

Lamp: 1.87 V
Bias: 80 V
Cooler: 1.87 V
Chopper: 536 Hz

Voltages (V)

Flow: 1.05 V
Detector: 0.021 V

LINERITY CHECK

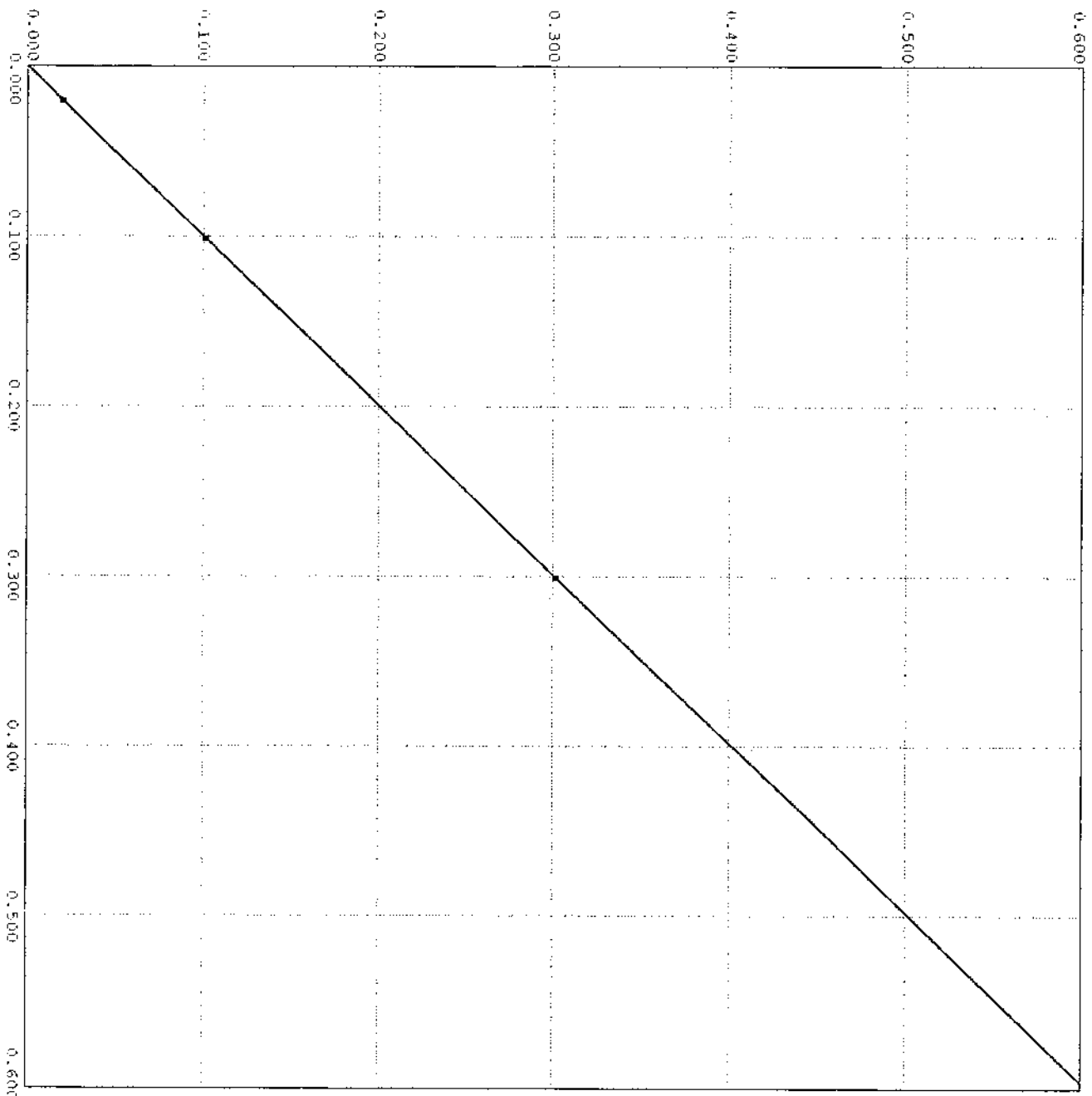
Alaska Department of Public Safety
DATAMASTER dmt: 100411

Date: 03/04/2019
Time: 12:22:00

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0206	0.0004
0.101	0.1020	0.0000
0.300	0.3024	0.0023

SLOPE = 1.005963
R² = 0.999999



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100411

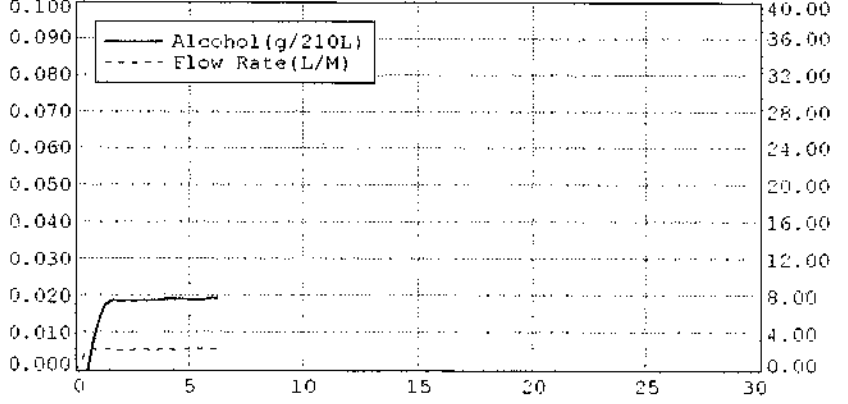
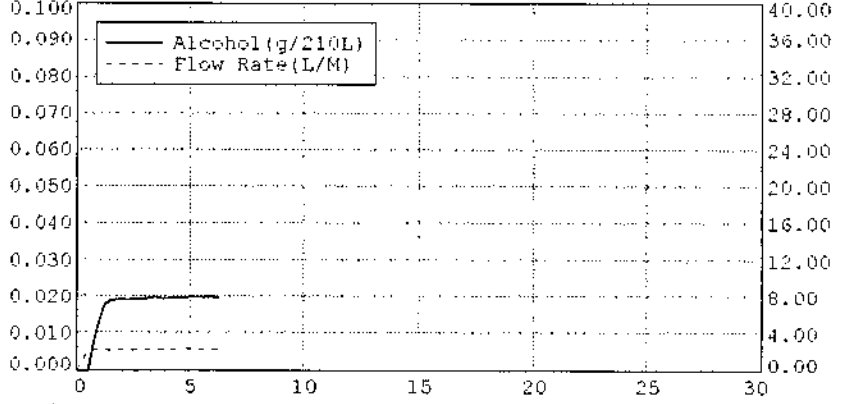
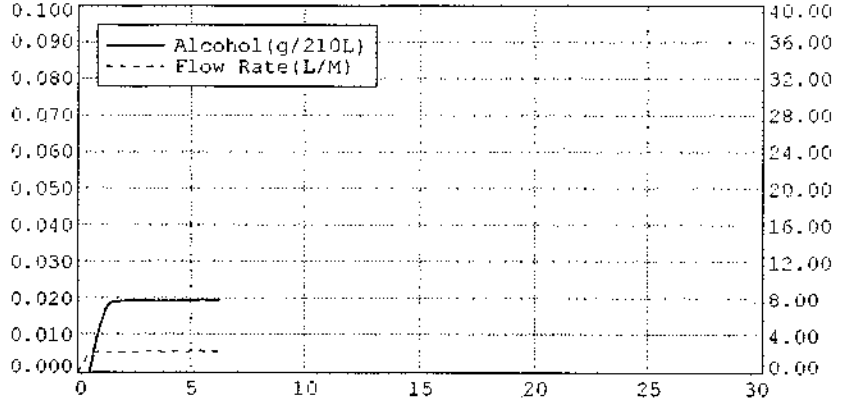
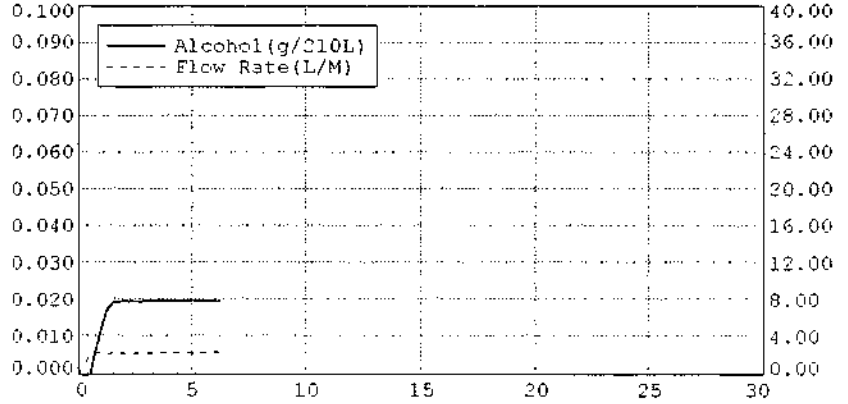
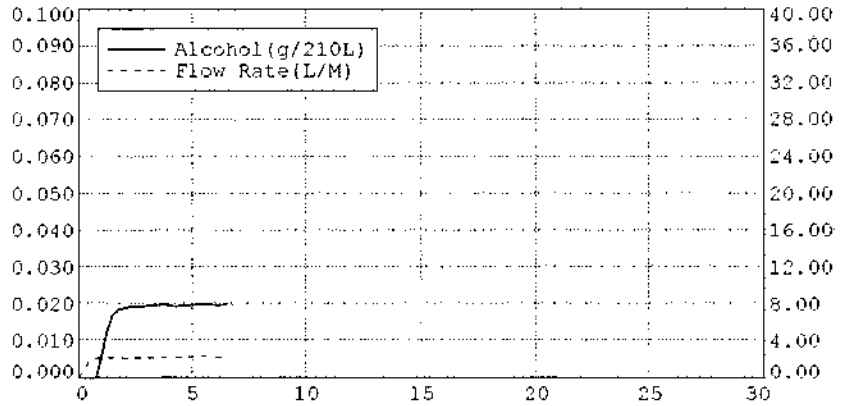
Date: 03/04/2019
 Time: 12:22:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 30.23: 0.020
 REF #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 764 psi

BLANK TEST	0.000	12:23
INTERNAL STANDARD	VERIFIED	12:23
EXTERNAL STANDARD	0.021	12:24
BLANK TEST	0.000	12:24
EXTERNAL STANDARD	0.021	12:25
BLANK TEST	0.000	12:26
EXTERNAL STANDARD	0.021	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.021	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.020	12:28
BLANK TEST	0.000	12:29

Average = 0.0208
 St. Dev = 0.0004



SECURITY CHECK: Control Test 2

Alaska Department of Public Safety
 IN MASTER dmt: 100411

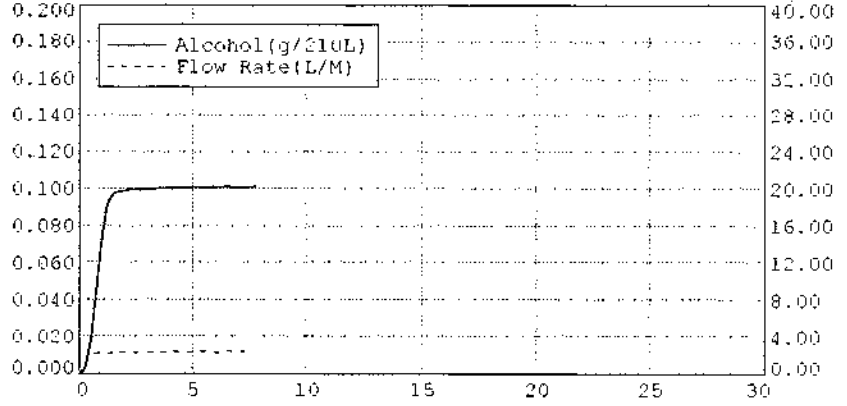
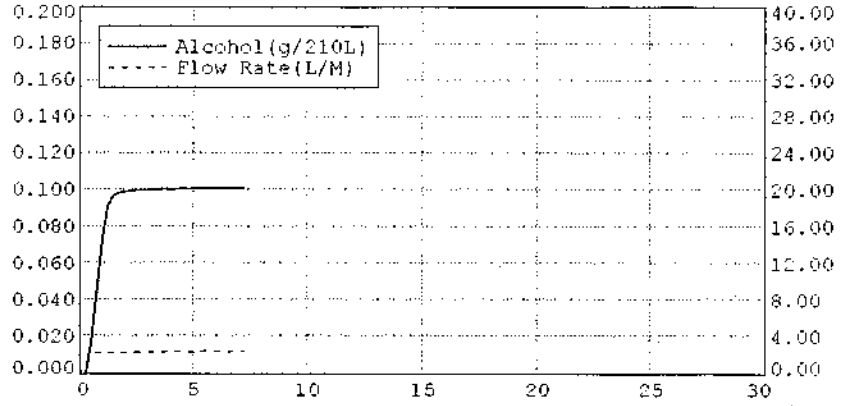
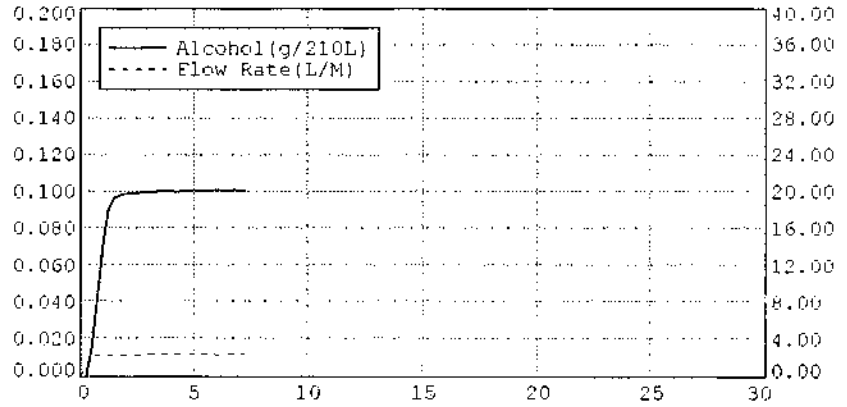
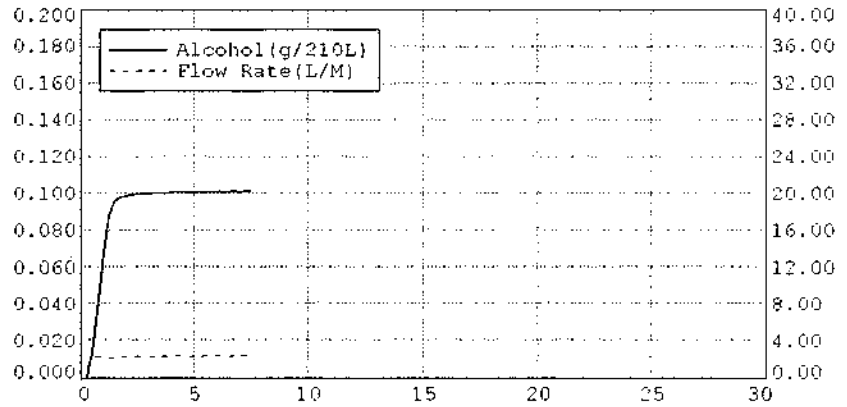
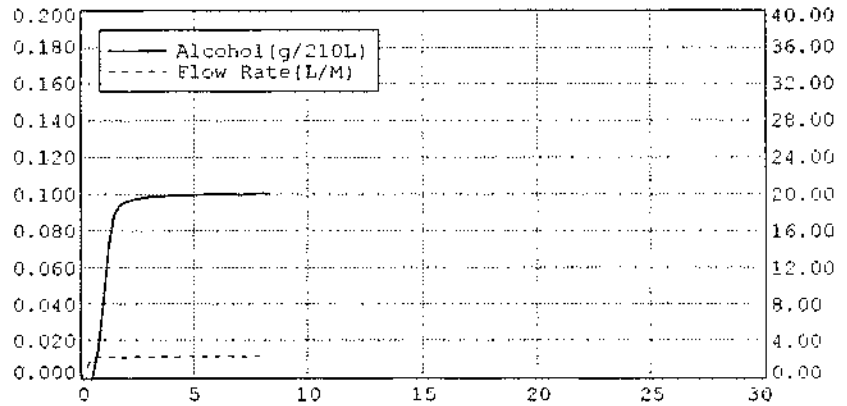
Date: 03/04/2019
 Time: 12:31:49

INTERNAL STANDARD INFORMATION

INTERNAL STANDARD: 0.100
 TARGET AT 30.22: 0.101
 ID #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 873 psi

BANK TEST	0.000	12:32
INTERNAL STANDARD	VERIFIED	12:33
INTERNAL STANDARD	0.102	12:33
BANK TEST	0.000	12:34
INTERNAL STANDARD	0.102	12:34
BANK TEST	0.000	12:35
INTERNAL STANDARD	0.102	12:35
BANK TEST	0.000	12:36
INTERNAL STANDARD	0.102	12:36
BANK TEST	0.000	12:37
INTERNAL STANDARD	0.102	12:37
BANK TEST	0.000	12:38

Range = 0.1020
 Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 LABORATORY dmt: 100411

Date: 03/04/2019
 Time: 13:00:49

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17350
 EXPIRATION: 10/11/2019

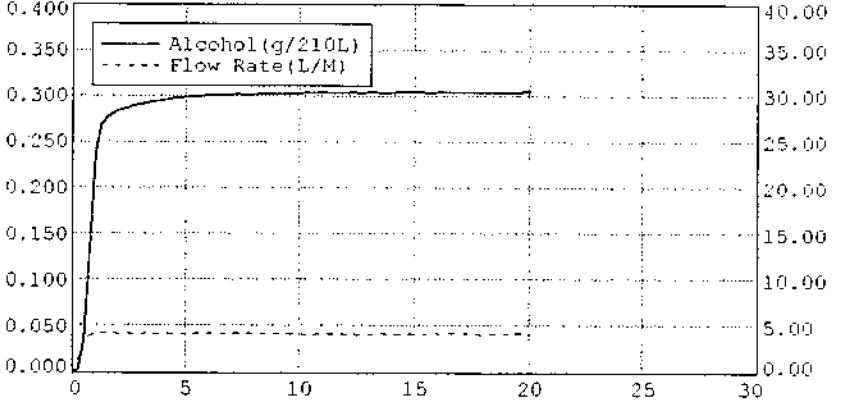
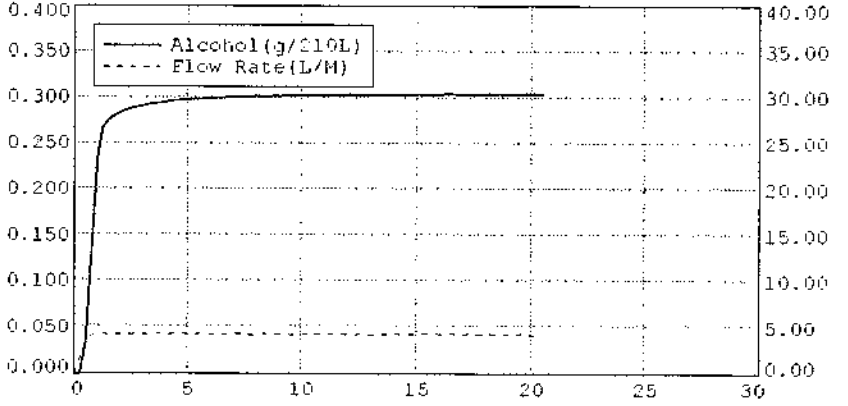
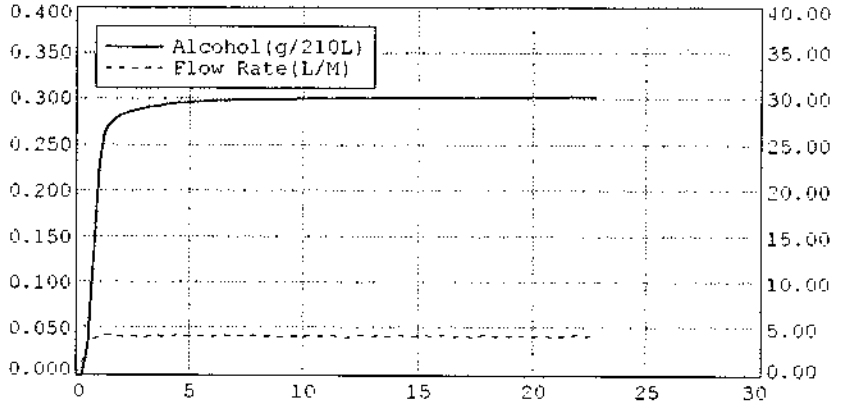
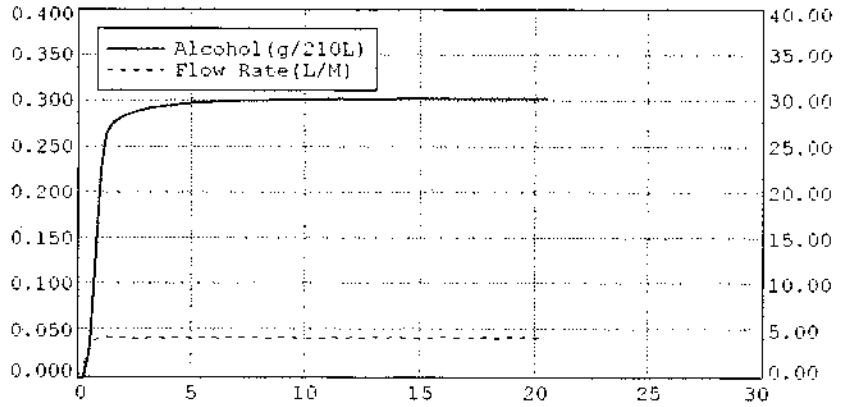
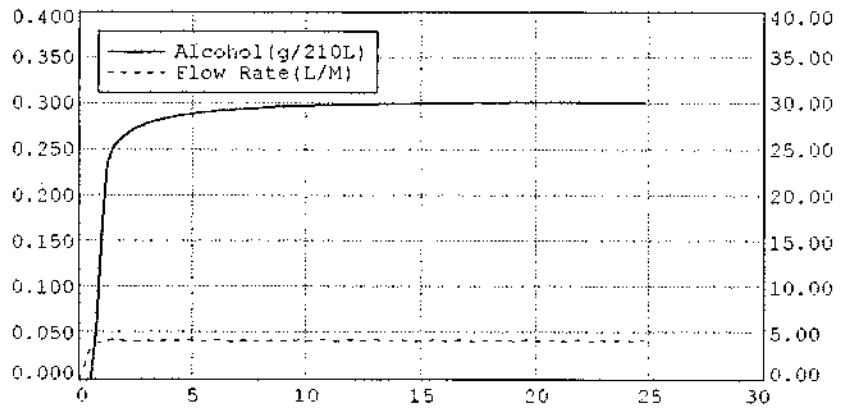
TEST TYPE	Result	Time
BANK TEST	0.000	13:01
EXTERNAL STANDARD	VERIFIED	13:02
EXTERNAL STANDARD	0.300	13:02
BANK TEST	0.000	13:03
EXTERNAL STANDARD	0.302	13:03
BANK TEST	0.000	13:04
EXTERNAL STANDARD	0.301	13:05
BANK TEST	0.000	13:06
EXTERNAL STANDARD	0.303	13:06
BANK TEST	0.000	13:07
EXTERNAL STANDARD	0.306	13:08
BANK TEST	0.000	13:09

Average = 0.3024
 Std Dev = 0.0023

Simulator S/N: SD1176

Calibrated 06/01/2018

JMV 03/04/2019



DIAGNOSTIC RECORD

Alaska Department of Public Safety
DATAMASTER dmt: 100671

Date: 03/04/2019
Time: 15:13:07

VERSIONS
DMT: 3.02
PIC: 3.03
Modem: 2.6
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
(44.0°C - 52.0°C)
Breath Tube = 46.9°C PASSED
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.69 V PASSED
(1.01 V - 2.37 V)
Cooler Voltage = 1.84 V PASSED
(1.00 V - 2.32 V)
Bias Voltage = 79 V PASSED
(47 V - 111 V)
Chopper Freq = 537 Hz PASSED
(475 Hz - 575 Hz)
Barometer = 30.2 in

PUMP INFO

Flow Rate = 4.682 L/M PASSED
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED
(0.002 V <= 0.010 V)
PUMP OFF PASSED
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED
Filter 2 PASSED
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.101 2.04% PASSED
(0.00% - 4.00%)

In-house QC

Jmv 03/04/2019

Technician Screen

DATAMASTER dmt: 100671

Date: 03/04/2019
Time: 3:11 PM

Temperatures (°C)

Sample Cell: 48.6°C
Breath Tube: 46.8°C

Current Barometer 30.2 in
Volume (Ltr) 0.00

Settings

Lamp: 1.69 V
Bias: 79 V
Cooler: 1.84 V
Chopper: 535 Hz

Voltages (V)

Flow: 1.06 V
Detector: 0.004 V

LINEARITY CHECK

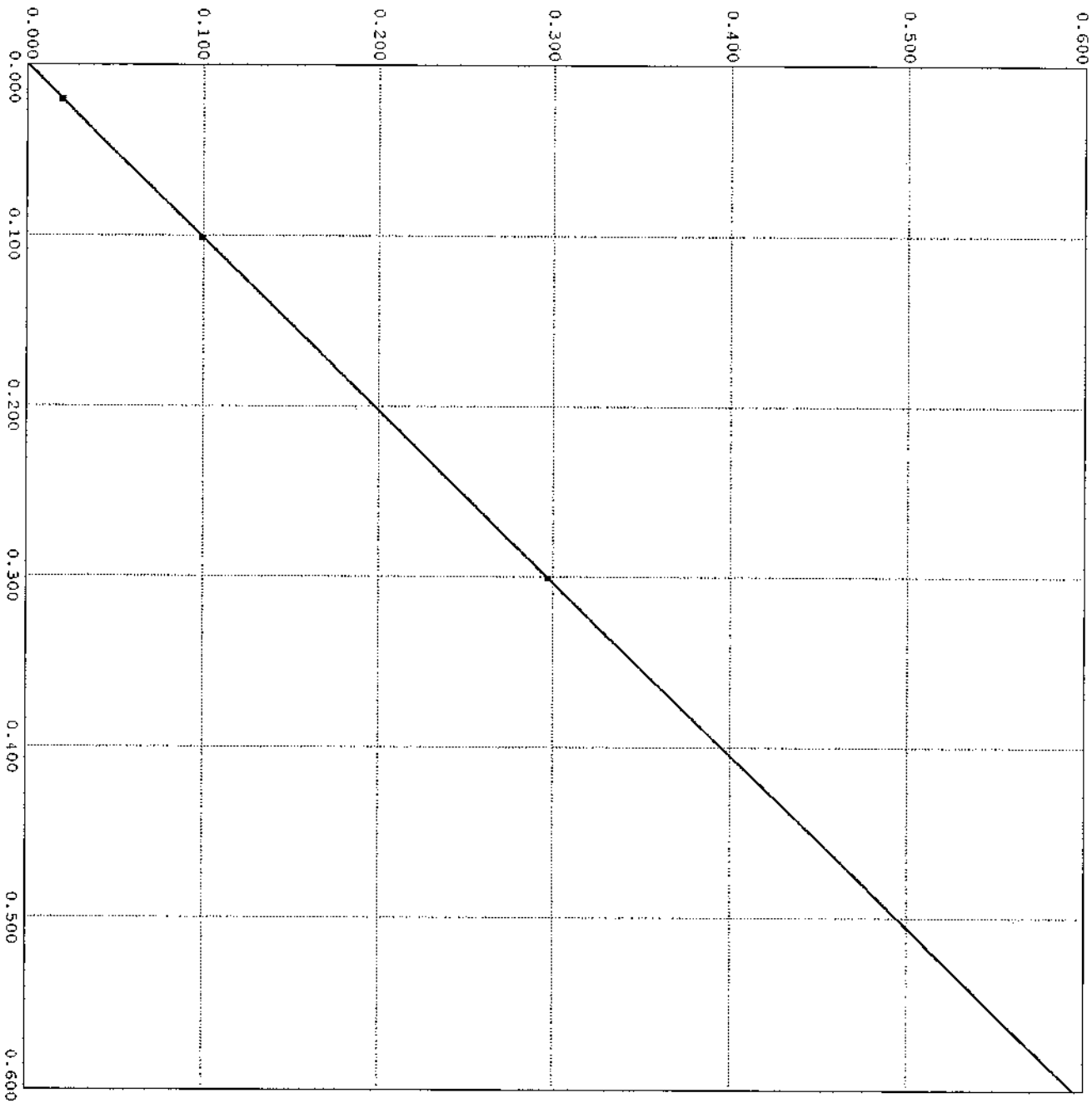
Alaska Department of Public Safety
DATAMASTER dmt: 100671

Date: 03/04/2019
Time: 15:15:49

SUPERVISOR NAME:
DEREK WALTON
OPERATOR'S #: 9508

TARGET	AVERAGE	STD. DEV.
0.020	0.0208	0.0004
0.101	0.1002	0.0004
0.300	0.2978	0.0013

SLOPE = 0.989979
R² = 0.999992



DM

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

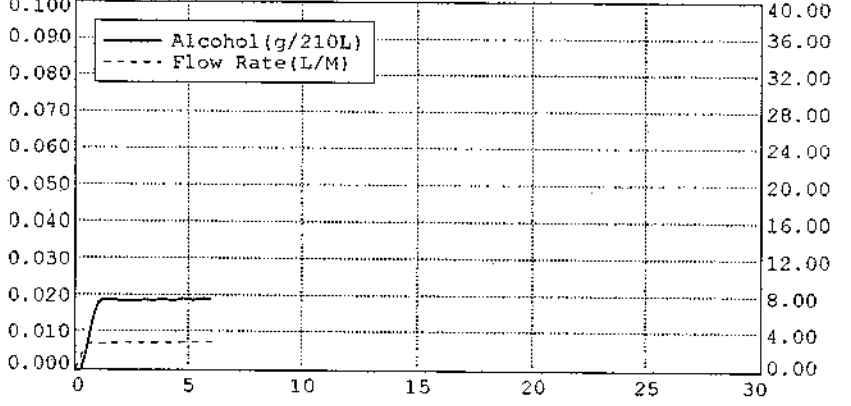
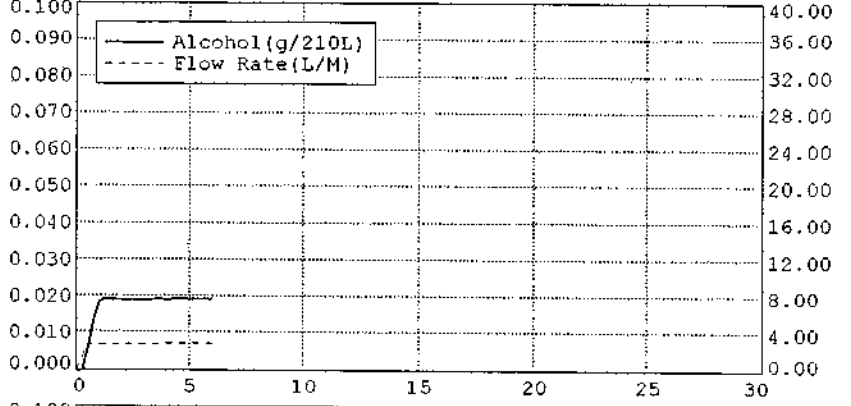
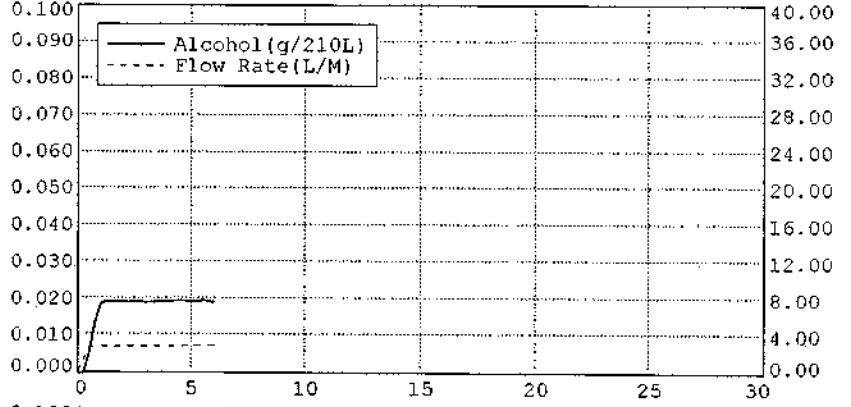
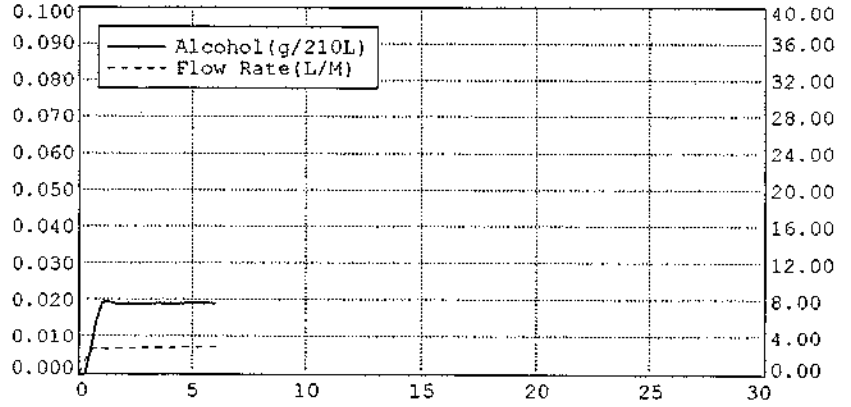
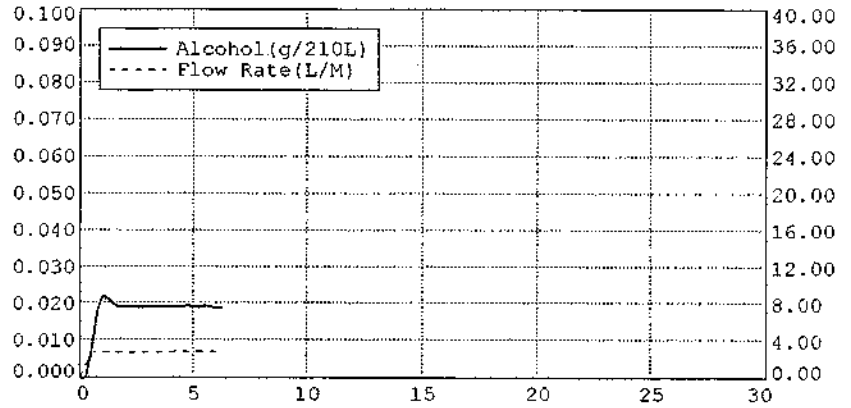
Date: 03/04/2019
 Time: 15:15:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020
 TARGET AT 30.18: 0.020
 LOT #: AG805804
 EXPIRATION: 02/27/2020
 TANK PRESSURE: 870 psi

BLANK TEST	0.000	15:17
INTERNAL STANDARD	VERIFIED	15:17
EXTERNAL STANDARD	0.021	15:17
BLANK TEST	0.000	15:18
EXTERNAL STANDARD	0.021	15:18
BLANK TEST	0.000	15:19
EXTERNAL STANDARD	0.021	15:19
BLANK TEST	0.000	15:20
EXTERNAL STANDARD	0.021	15:20
BLANK TEST	0.000	15:21
EXTERNAL STANDARD	0.020	15:21
BLANK TEST	0.000	15:22

Average = 0.0208
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

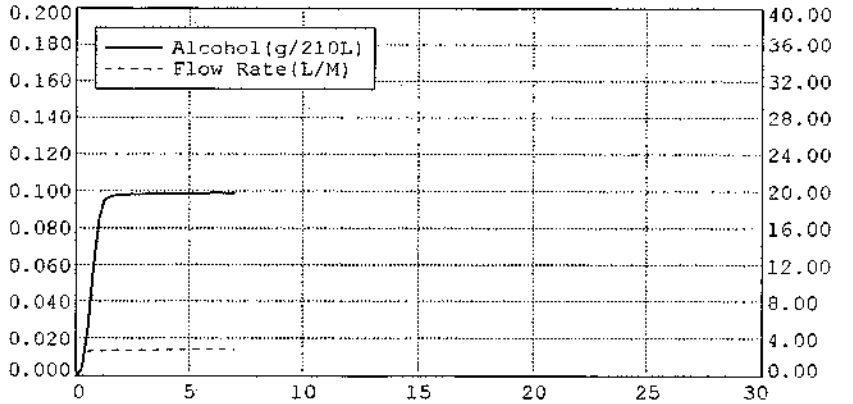
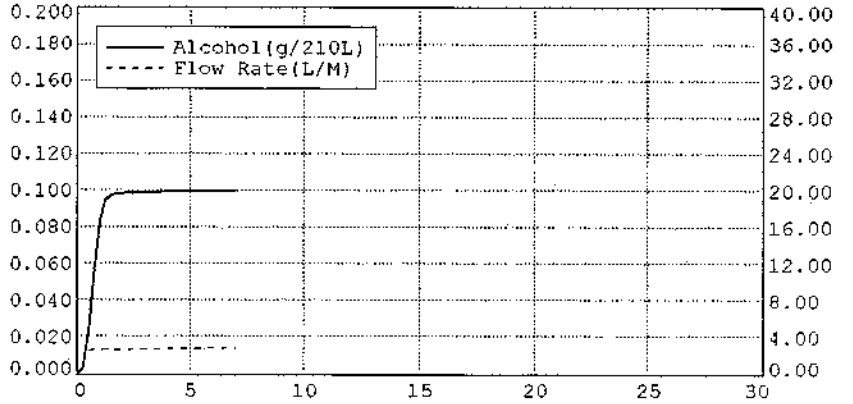
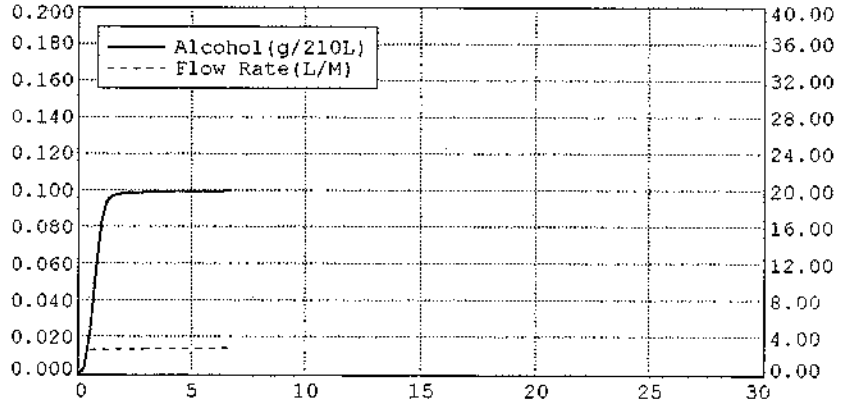
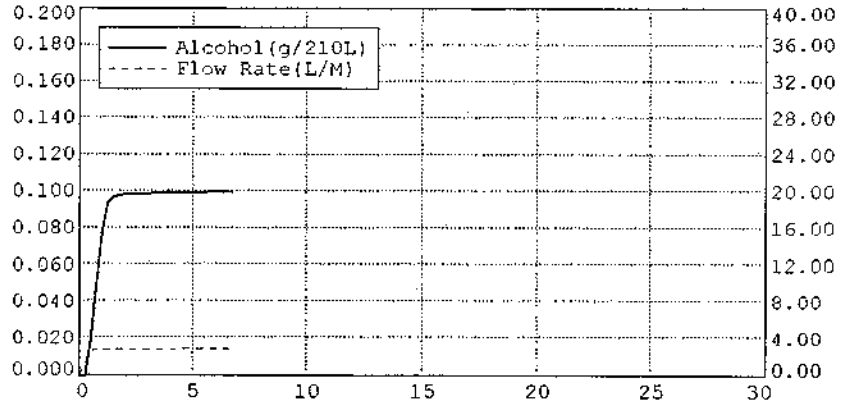
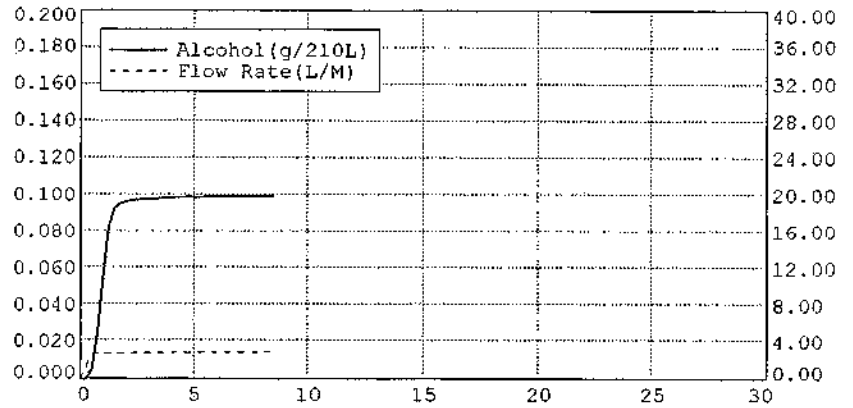
Date: 03/04/2019
 Time: 15:25:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100
 TARGET AT 30.18: 0.101
 LOT #: AG805903
 EXPIRATION: 02/28/2020
 TANK PRESSURE: 844 psi

BLANK TEST	0.000	15:43
INTERNAL STANDARD	VERIFIED	15:43
EXTERNAL STANDARD	0.100	15:43
BLANK TEST	0.000	15:44
EXTERNAL STANDARD	0.100	15:44
BLANK TEST	0.000	15:45
EXTERNAL STANDARD	0.101	15:46
BLANK TEST	0.000	15:46
EXTERNAL STANDARD	0.100	15:47
BLANK TEST	0.000	15:48
EXTERNAL STANDARD	0.100	15:48
BLANK TEST	0.000	15:49

Average = 0.1002
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety
 DATAMASTER dmt: 100671

Date: 03/04/2019
 Time: 15:59:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300
 LOT #: 17350
 EXPIRATION: 10/11/2019

BLANK TEST	0.000	16:01
INTERNAL STANDARD	VERIFIED	16:01
EXTERNAL STANDARD	0.296	16:02
BLANK TEST	0.000	16:03
EXTERNAL STANDARD	0.297	16:03
BLANK TEST	0.000	16:04
EXTERNAL STANDARD	0.298	16:04
BLANK TEST	0.000	16:05
EXTERNAL STANDARD	0.299	16:06
BLANK TEST	0.000	16:07
EXTERNAL STANDARD	0.299	16:07
BLANK TEST	0.000	16:08

Average = 0.2978
 Std Dev = 0.0013

Simulator S/N. SD1176

Calibrated: 06/01/2018

JMY 03/04/2019

