



## GUTH LABORATORIES, INC.

590 NORTH 67th STREET • HARRISBURG, PA 17111-4511 • TELEPHONE: 717-664-8470

### CERTIFICATE OF ANALYSIS

Certified Alcohol Reference Solution for Simulator

Random Samples of Lot Number 17280 of Alcohol Reference Solution for Simulator were analyzed by gas chromatography on **September 12, 2017**, using a Perkin Elmer Gas Chromatograph Autosystem XL S/N: 610N9030209, and found to contain **0.1206%** (w/vol) ethyl alcohol. The expiration date for this lot number is **September 11, 2019** 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 **0.100 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 FN08051301 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: 10/10/2017  
 Time: 16:59:49

SUPERVISOR NAME:  
 COLLEEN S OBRYANT  
 OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.100

BLANK TEST	0.000	17:00
INTERNAL STANDARD	VERIFIED	17:01
EXTERNAL STANDARD	0.099	17:01
BLANK TEST	0.000	17:02
EXTERNAL STANDARD	0.100	17:02
BLANK TEST	0.000	17:03
EXTERNAL STANDARD	0.100	17:04
BLANK TEST	0.000	17:04
EXTERNAL STANDARD	0.100	17:05
BLANK TEST	0.000	17:06
EXTERNAL STANDARD	0.101	17:06
BLANK TEST	0.000	17:07

Average = 0.1000  
 Std Dev = 0.0007

*Both 0.100 (2)*

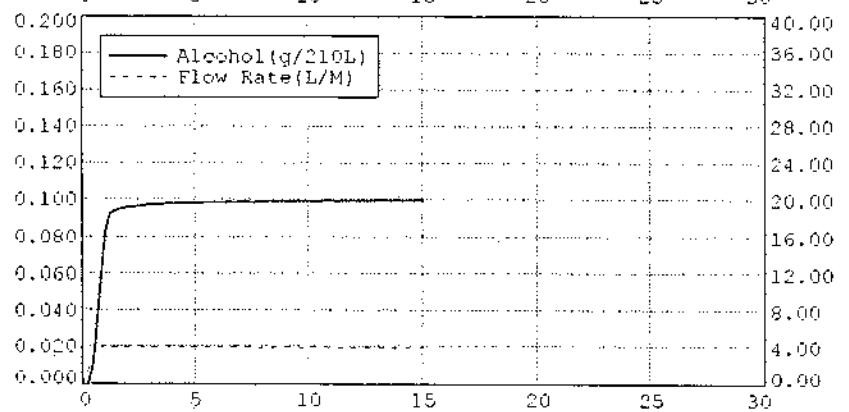
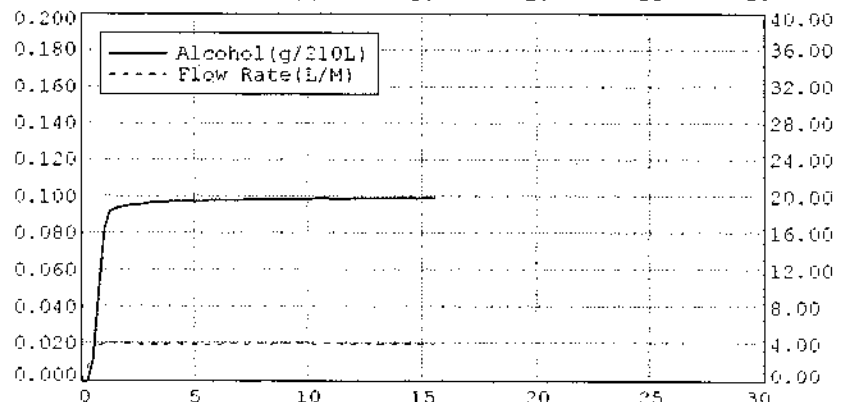
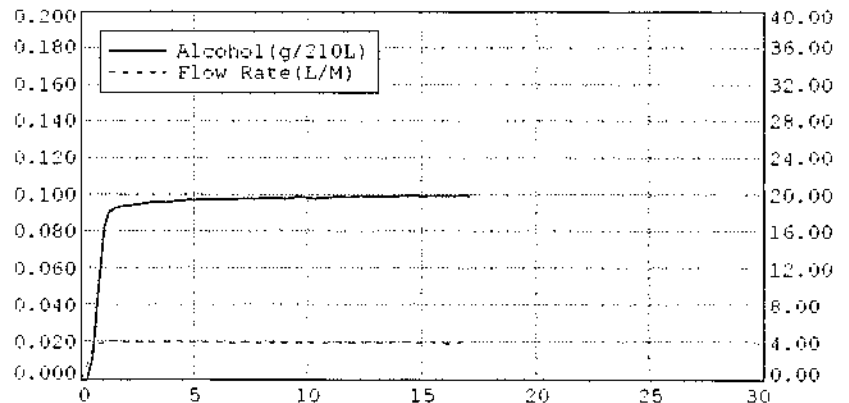
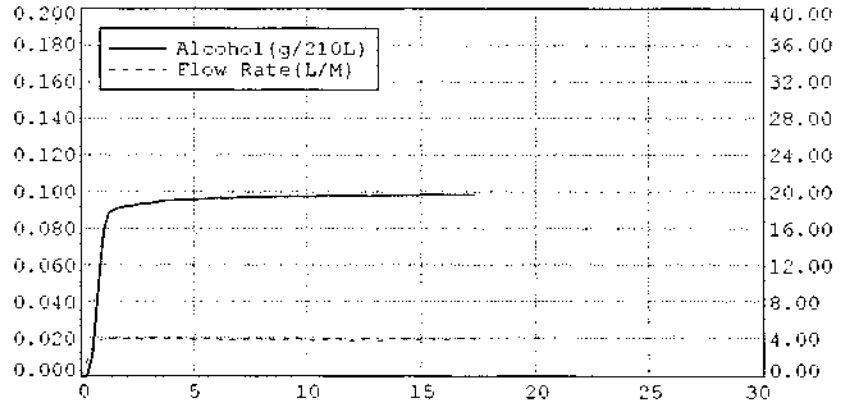
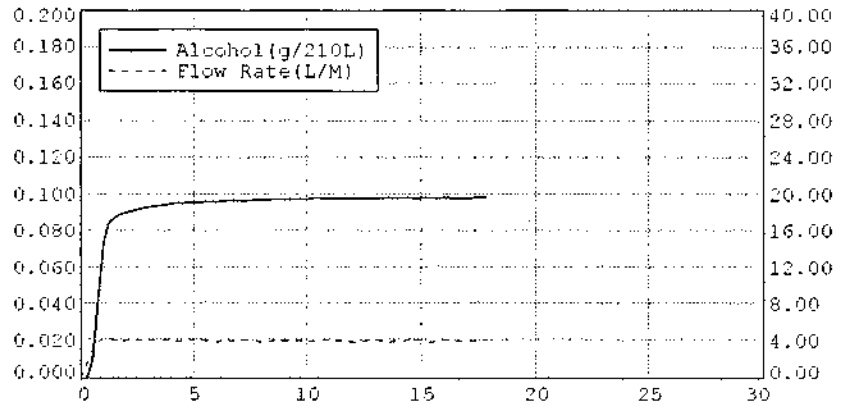
*Lot# 17280*

*Exp 9/11/19*

*Simulator DR-4146  
 Calibrated 3/28/17*

*COB 10/10/17*

*Total Avg = 0.101*



SUPERVISOR TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

Date: 10/10/2017  
 Time: 17:07:44

SUPERVISOR NAME:  
 COLLEEN S OBRYANT  
 OPERATOR'S #: 6237

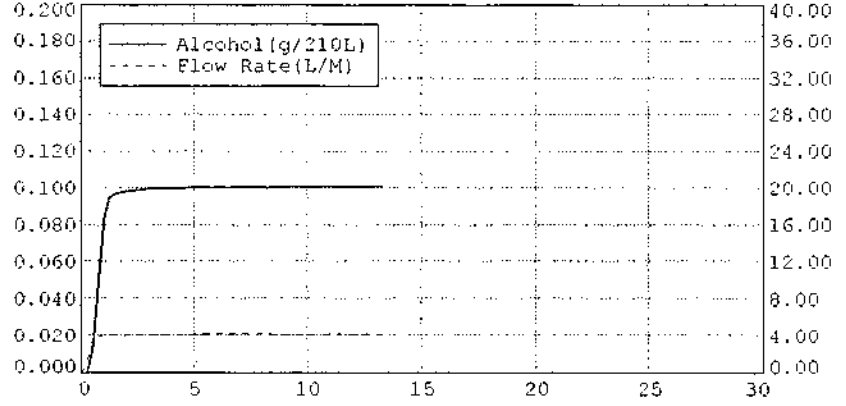
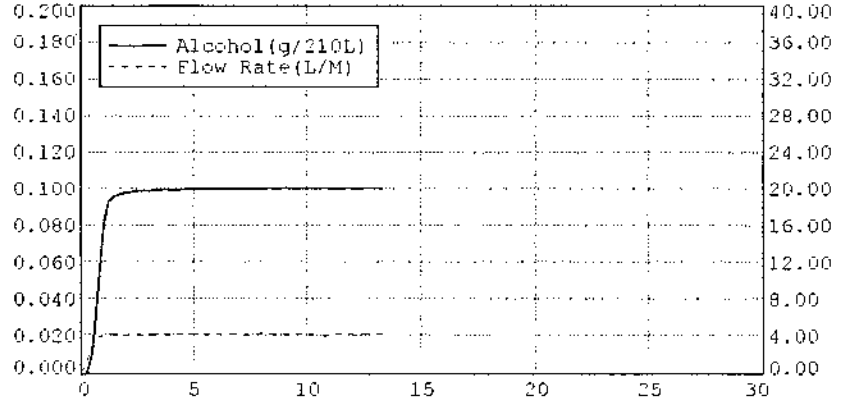
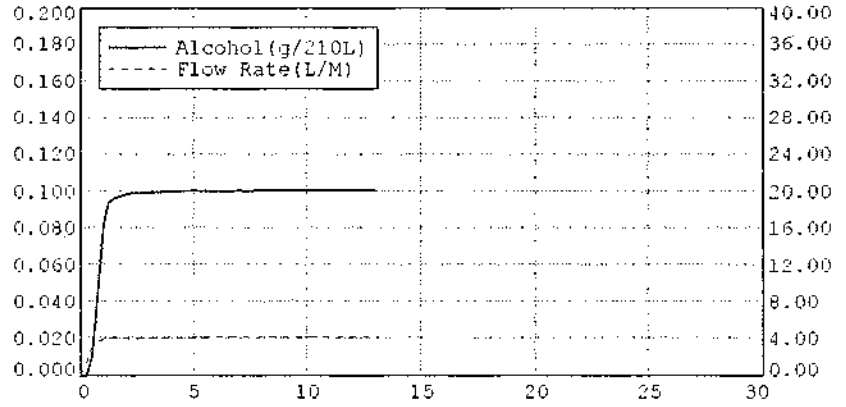
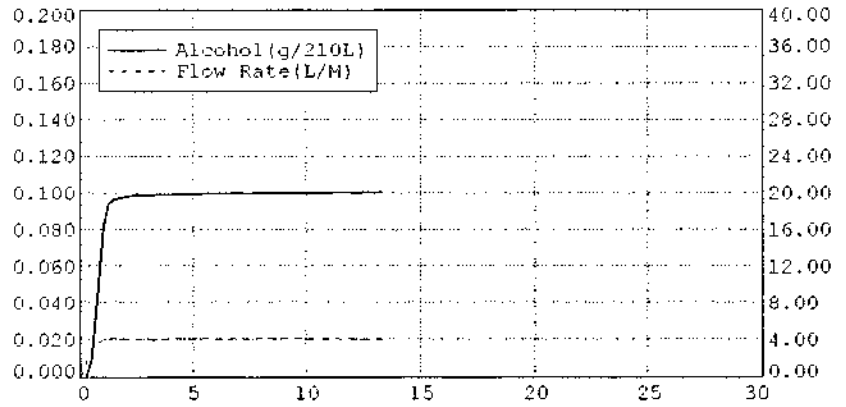
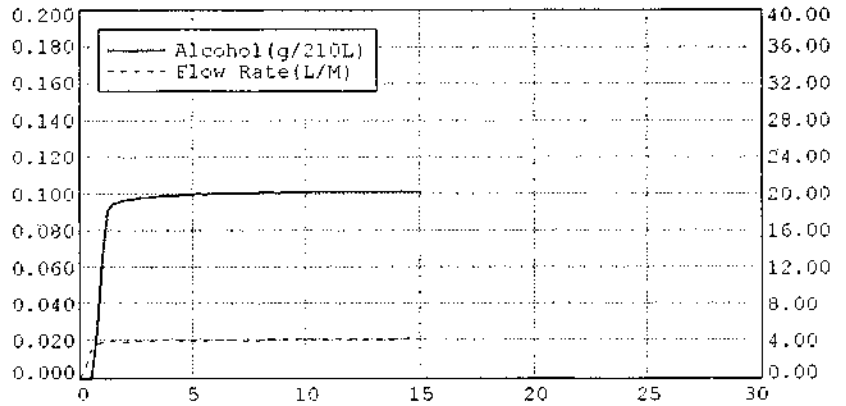
EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.100

BLANK TEST	0.000	17:09
INTERNAL STANDARD	VERIFIED	17:09
EXTERNAL STANDARD	0.103	17:09
BLANK TEST	0.000	17:10
EXTERNAL STANDARD	0.102	17:10
BLANK TEST	0.000	17:11
EXTERNAL STANDARD	0.102	17:11
BLANK TEST	0.000	17:12
EXTERNAL STANDARD	0.102	17:13
BLANK TEST	0.000	17:14
EXTERNAL STANDARD	0.102	17:14
BLANK TEST	0.000	17:15

Average = 0.1022  
 Std Dev = 0.0004

*Both 0.100(2)*  
*Lot# 17280*  
*Exp 9/10/19*

*Simulator DR 4176*  
*Calibrated 3/28/17*  
*COB 10/10/17*



SUPERVISOR TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100671

Date: 10/10/2017  
Time: 17:18:23

SUPERVISOR NAME:  
COLLEEN S OBRYANT  
OPERATOR'S #: 6237

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.100

BLANK TEST	0.000	17:19
INTERNAL STANDARD	VERIFIED	17:19
EXTERNAL STANDARD	0.099	17:19
BLANK TEST	0.000	17:20
EXTERNAL STANDARD	0.100	17:21
BLANK TEST	0.000	17:22
EXTERNAL STANDARD	0.100	17:22
BLANK TEST	0.000	17:23
EXTERNAL STANDARD	0.100	17:23
BLANK TEST	0.000	17:24
EXTERNAL STANDARD	0.100	17:24
BLANK TEST	0.000	17:25

Average = 0.0998  
Std Dev = 0.0004

*Both 0.100 @*

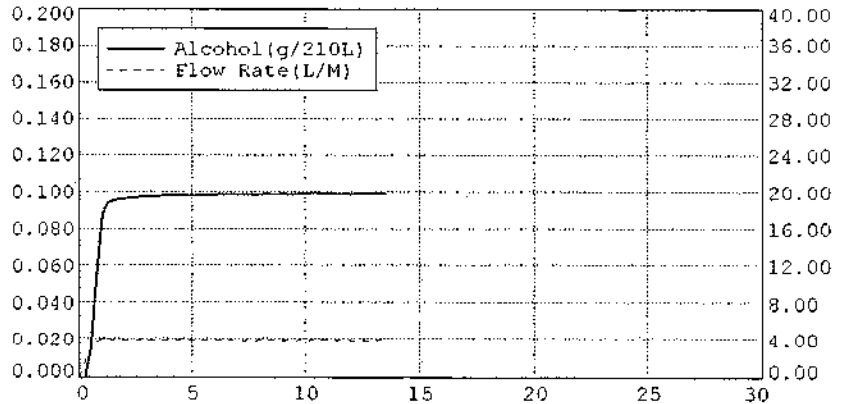
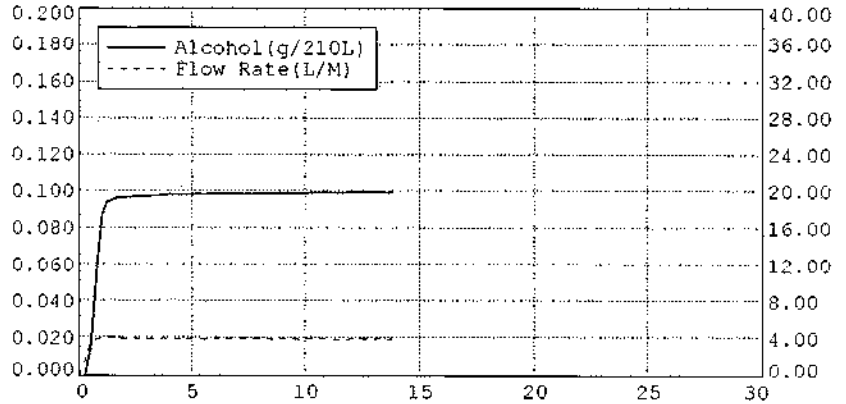
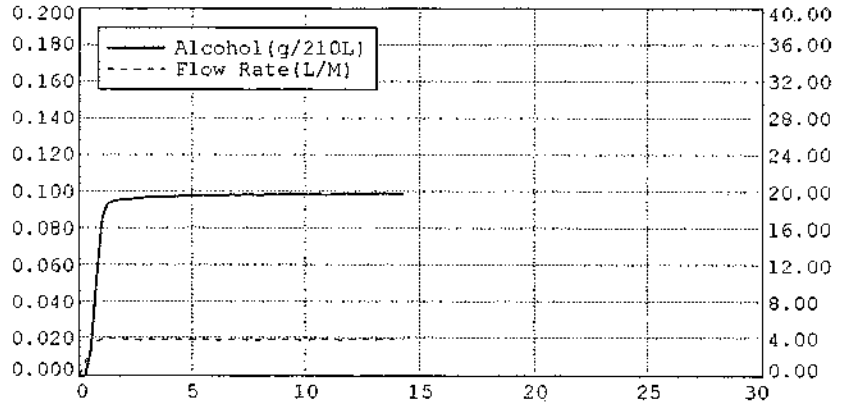
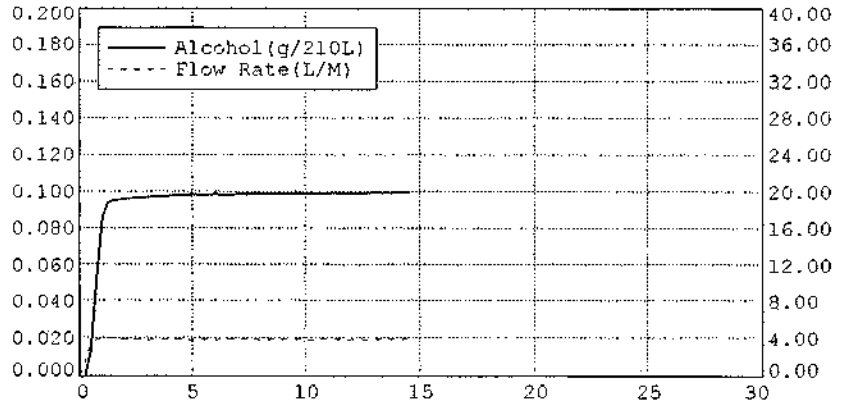
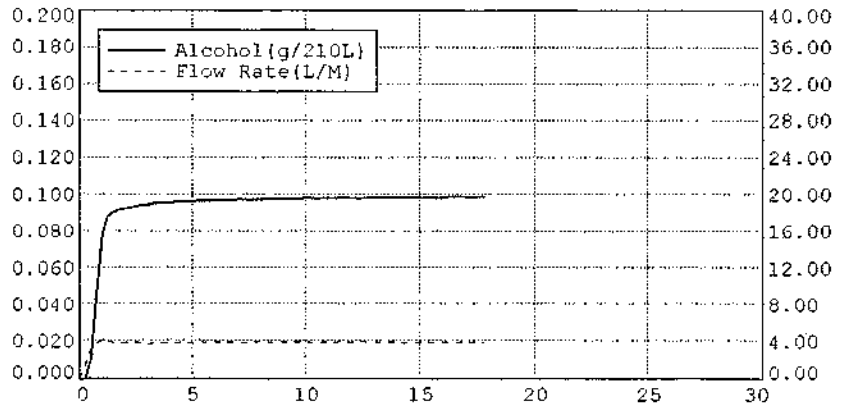
*Lot# 17280*

*Exp 9/11/19*

*Simulator DR 4176*

*Calibrated 3/28/17*

*COB 10/10/17*



DIAGNOSTIC RECORD

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Alaska Department of Public Safety  
DATAMASTER dmt: 100353  
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Date: 10/10/2017  
Time: 09:52:17

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
Breath Tube = 48.1°C PASSED

PUMP INFO

Flow Rate = 4.765 L/M PASSED

DETECTOR INFO

PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

-----  
DATAMASTER dmt: 100353  
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Date: 10/10/2017  
Time: 9:55 AM

Temperatures (°C)

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

Current Barometer 29.9 in  
Volume (Ltr) 0.00

Settings

Lamp: 2.17 V  
Bias: 80 V  
Cooler: 2.15 V  
Chopper: 540 Hz

Voltages (V)

Flow: 1.06 V  
Detector: 0.051 V

LINEARITY CHECK

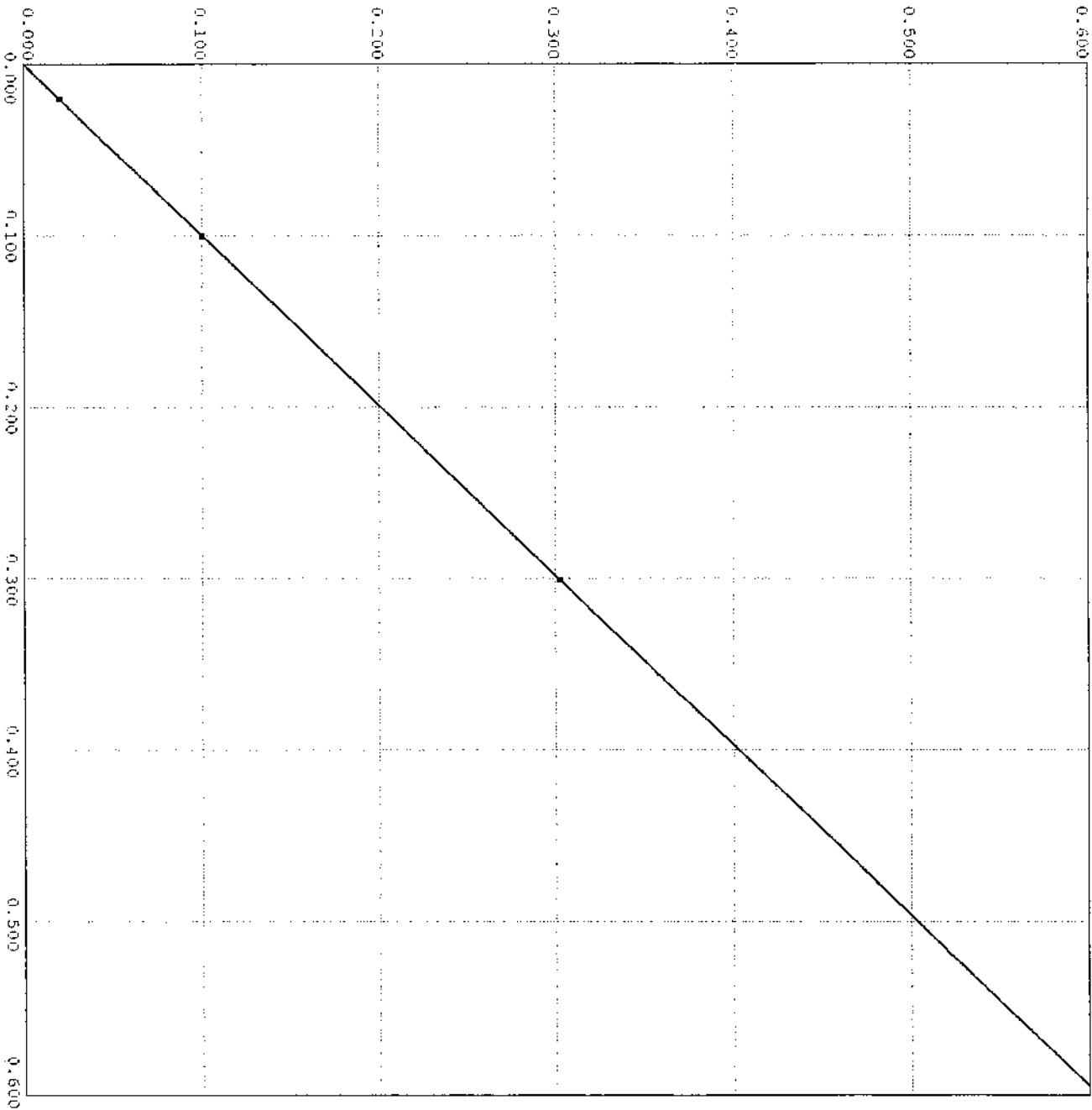
Alaska Department of Public Safety  
DATAMASTER dmt: 100353

Date: 10/10/2017  
Time: 10:06:07

SUPERVISOR NAME:  
COLLEEN S O'BRYEN  
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.100	0.1010	0.0000
0.300	0.3032	0.0008

SLOPE = 1.008462  
R<sup>2</sup> = 0.999994



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100353

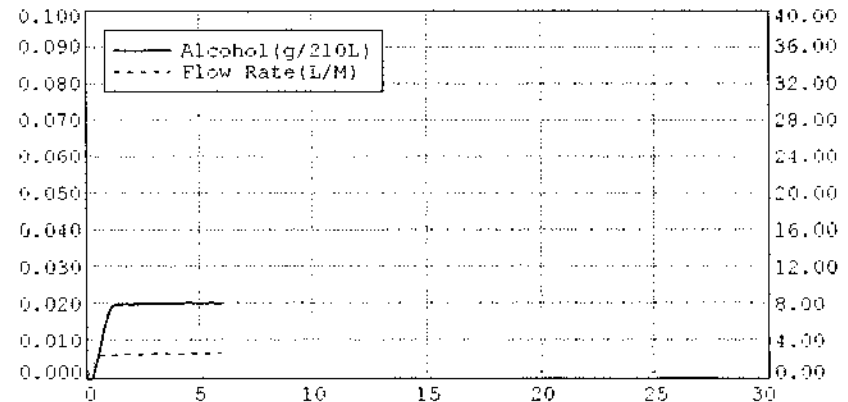
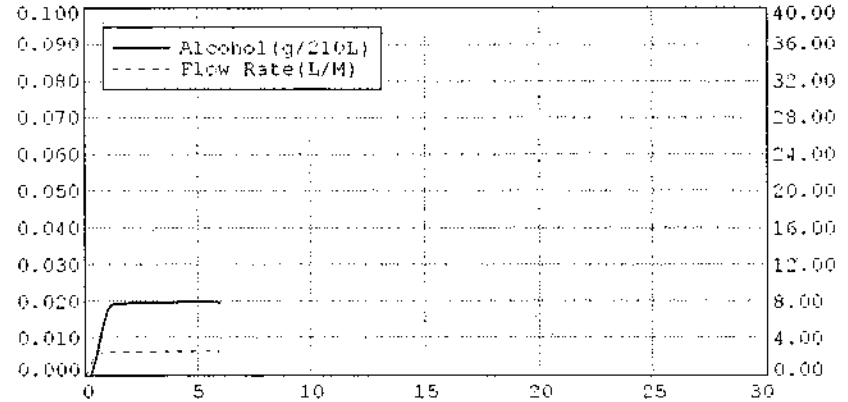
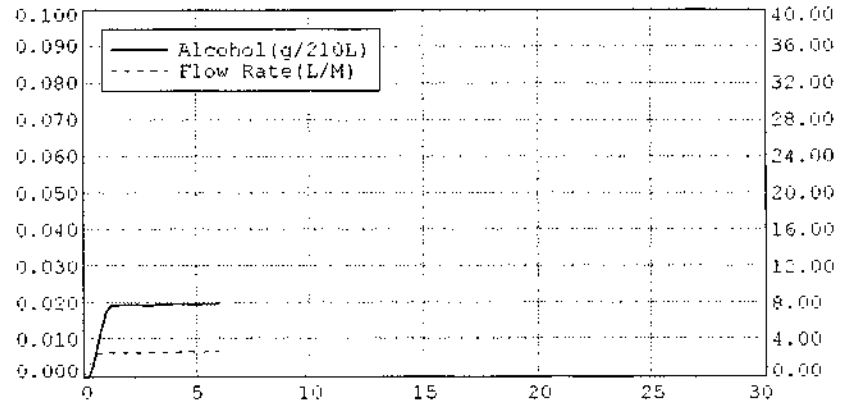
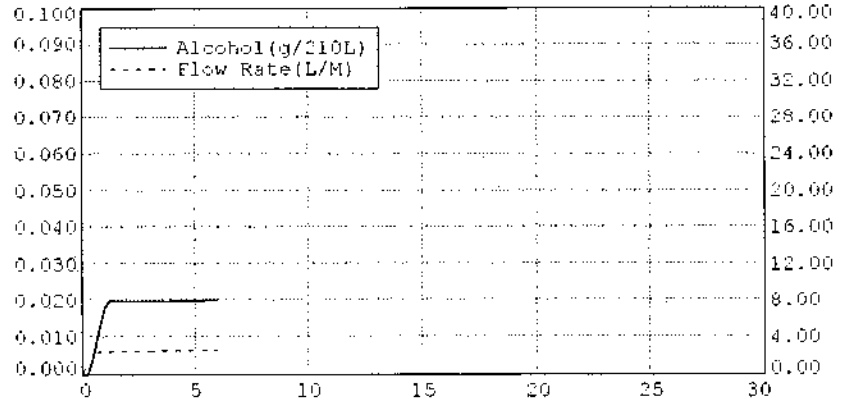
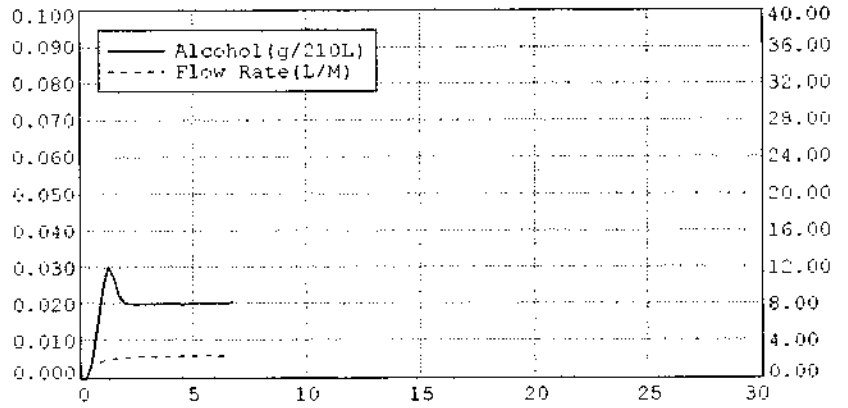
Date: 10/10/2017  
 Time: 10:06:09

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.94: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 581 psi

BLANK TEST	0.000	10:07
INTERNAL STANDARD	VERIFIED	10:07
EXTERNAL STANDARD	0.021	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.021	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.021	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.021	10:11
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.021	10:12
BLANK TEST	0.000	10:13

Average = 0.0210  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100353

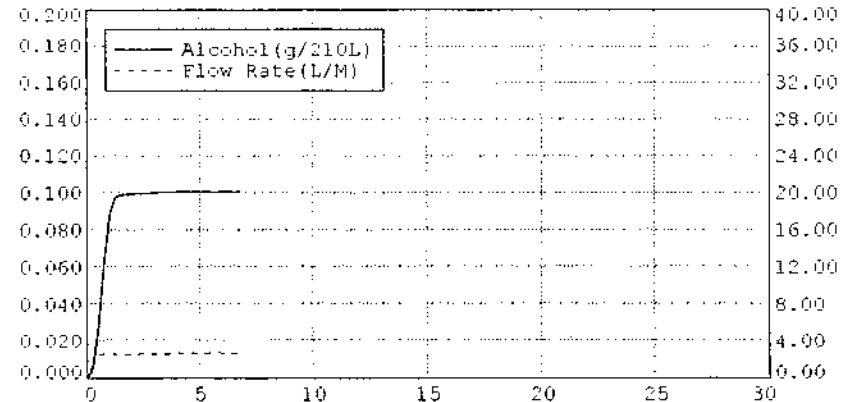
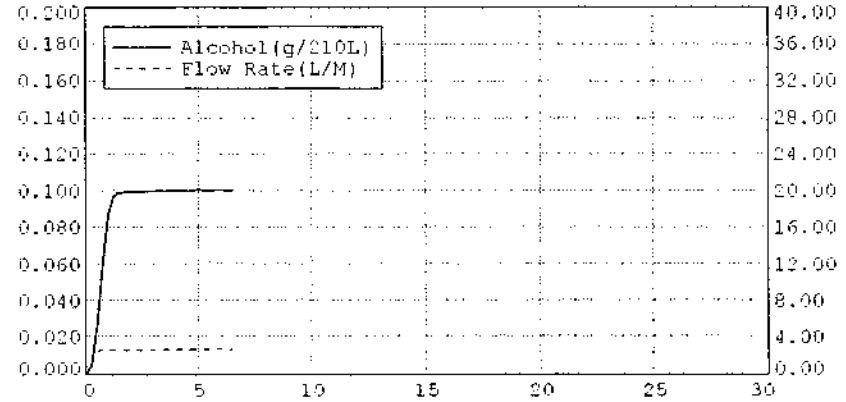
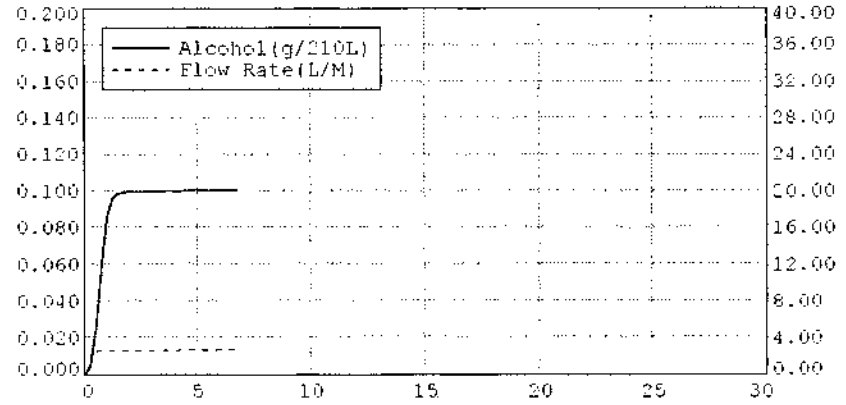
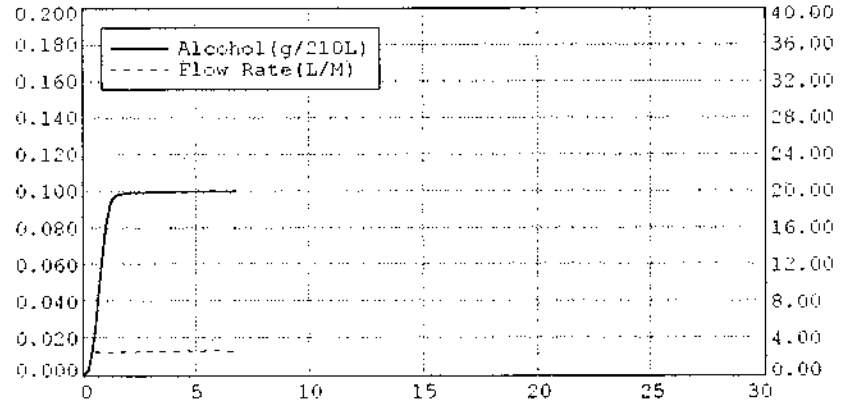
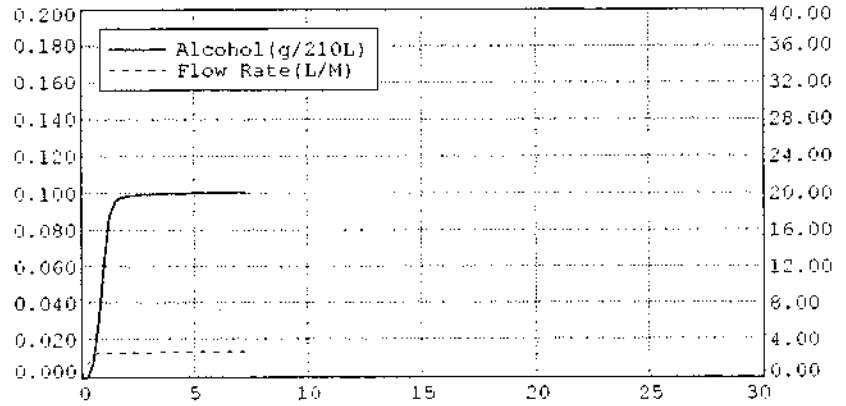
Date: 10/10/2017  
 Time: 10:13:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.94: 0.100  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 831 psi

BLANK TEST	0.000	10:14
INTERNAL STANDARD	VERIFIED	10:15
EXTERNAL STANDARD	0.101	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.101	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.101	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.101	10:18
BLANK TEST	0.000	10:19
EXTERNAL STANDARD	0.101	10:19
BLANK TEST	0.000	10:20

Average = 0.1010  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100353

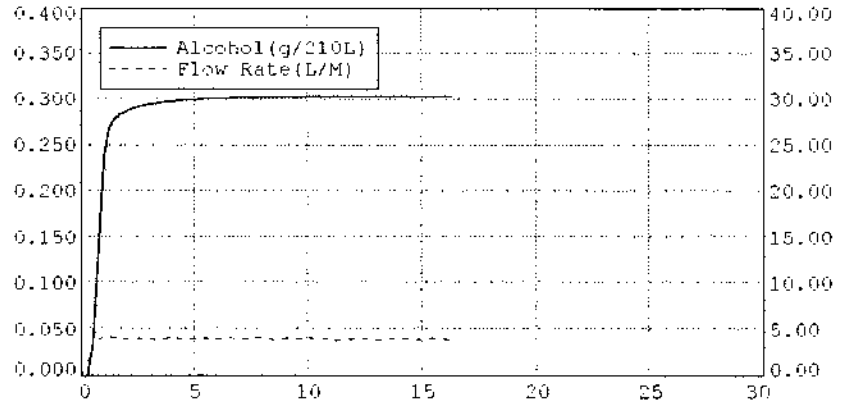
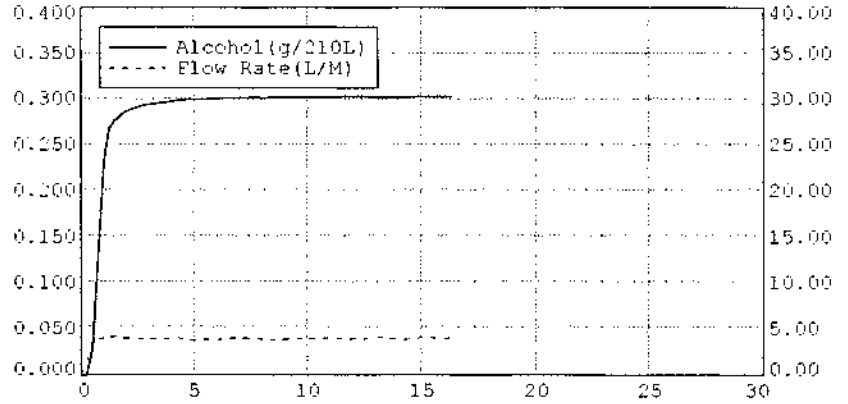
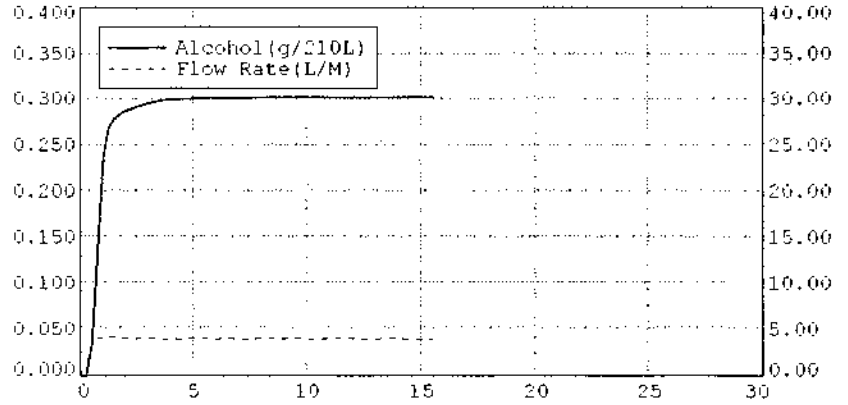
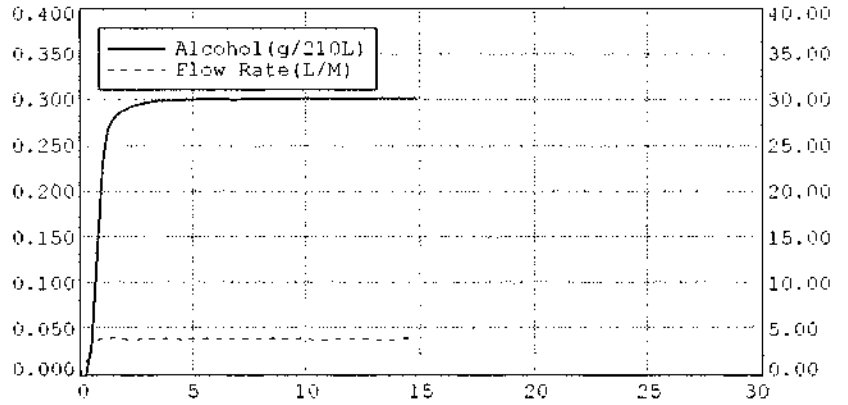
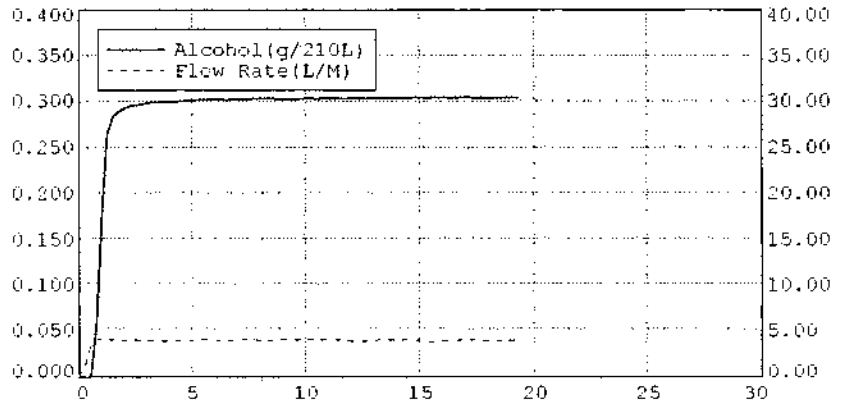
Date: 10/10/2017  
 Time: 10:22:33

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 16410  
 EXPIRATION: 12/19/2018

BLANK TEST	0.000	10:23
INTERNAL STANDARD	VERIFIED	10:23
EXTERNAL STANDARD	0.304	10:24
BLANK TEST	0.000	10:25
EXTERNAL STANDARD	0.302	10:25
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.303	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.303	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.304	10:29
BLANK TEST	0.000	10:30

Average = 0.3032  
 Std Dev = 0.0008

*Simulator DR 4162  
 Calibrated 3/27/17  
 COB 10/10/17*



DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100411  
-----

Date: 10/10/2017  
Time: 09:51:24

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
Breath Tube = 47.6°C PASSED

PUMP INFO

Flow Rate = 5.247 L/M PASSED

DETECTOR INFO

PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

-----  
DATAMASTER dmt: 100411  
-----

Date: 10/10/2017  
Time: 9:53 AM

Temperatures (°C)

Sample Cell: 48.8°C  
Breath Tube: 47.7°C

Current Barometer 29.9 in  
Volume (Ltr) 0.00

Settings

Lamp: 1.82 V  
Bias: 80 V  
Cooler: 1.95 V  
Chopper: 538 Hz

Voltages (V)

Flow: 1.05 V  
Detector: 0.042 V

LINEARITY CHECK

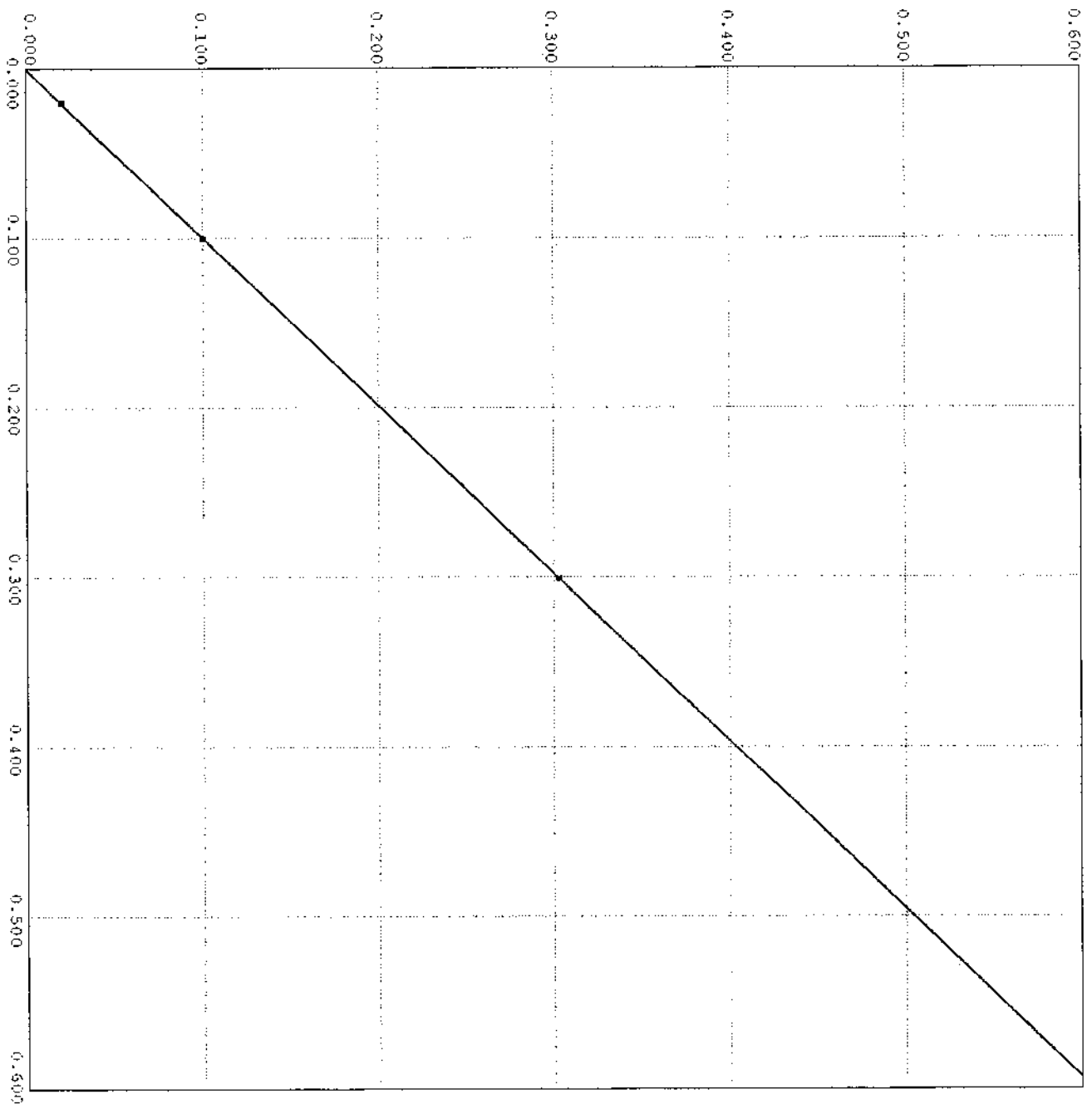
Alaska Department of Public Safety  
DATAMASTER dmt: 100411

Date: 10/10/2017  
Time: 09:58:06

SUPERVISOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.100	0.1008	0.0004
0.300	0.3038	0.0004

SLOPE = 1.010962  
R<sup>2</sup> = 0.999985



MS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

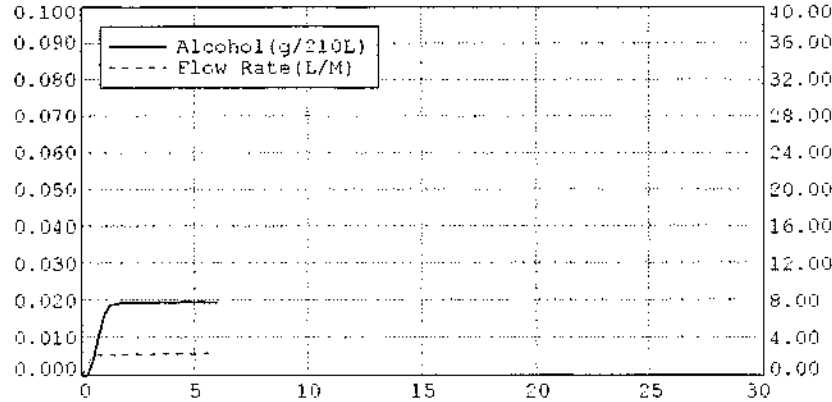
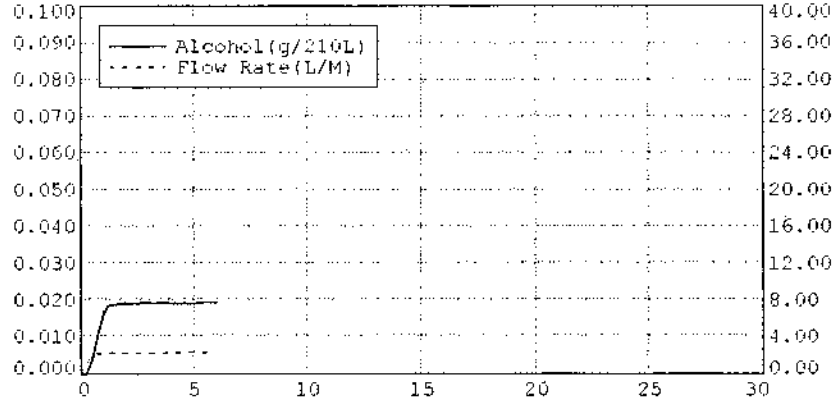
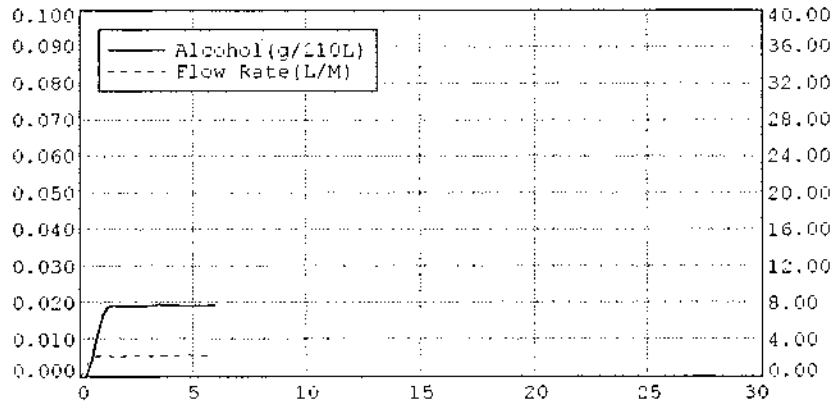
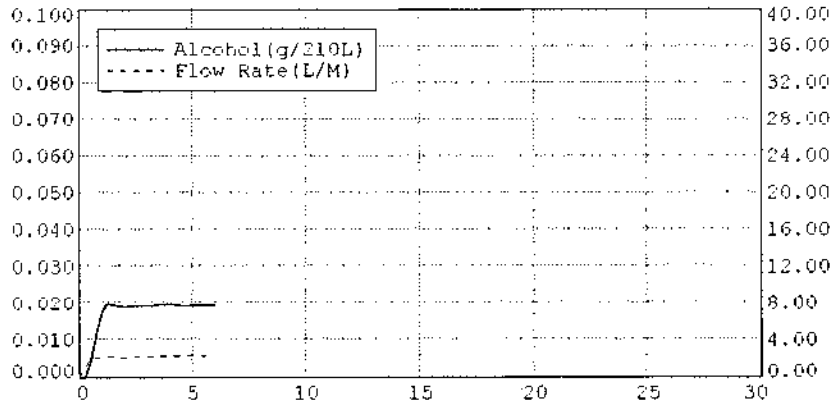
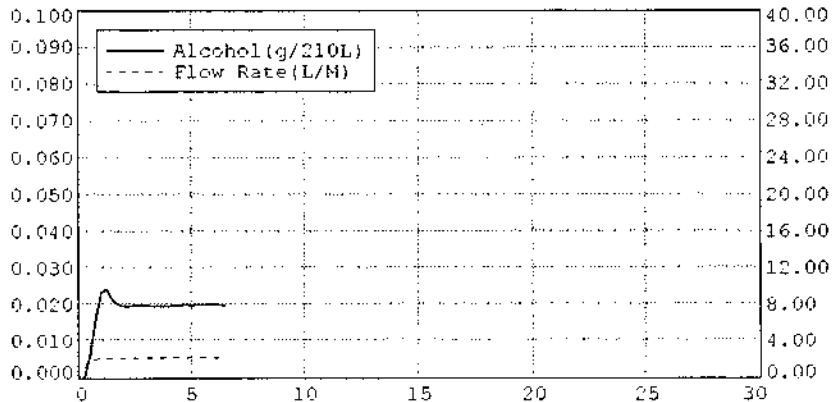
Date: 10/10/2017  
 Time: 09:58:08

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.94: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 566 psi

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.021	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.021	10:07
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.021	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.021	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.021	10:10
BLANK TEST	0.000	10:11

Average = 0.0210  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100411

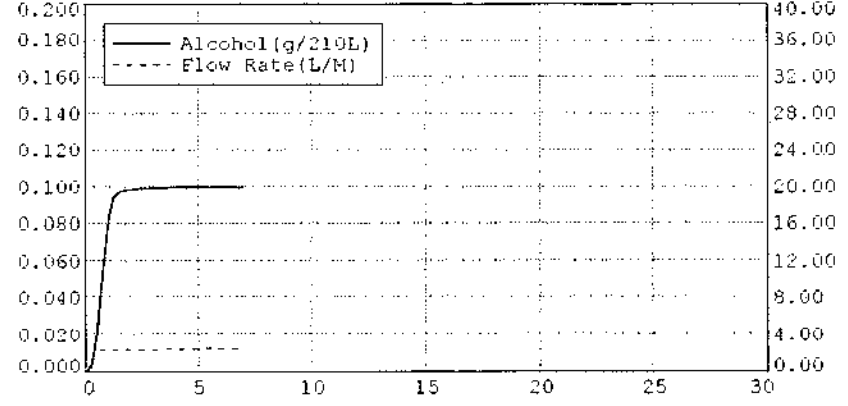
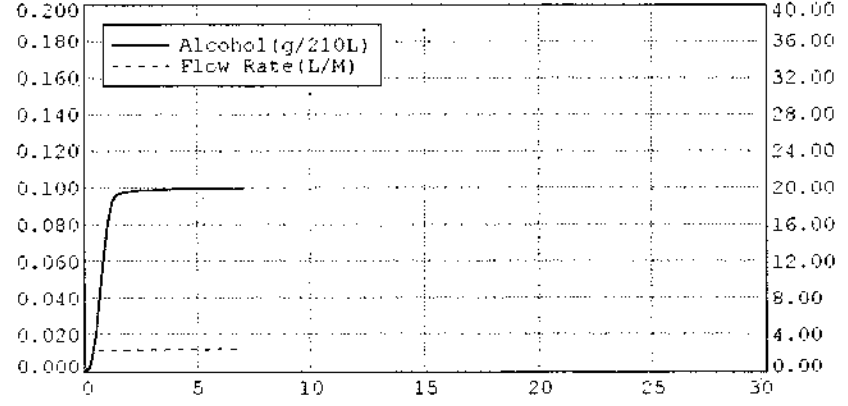
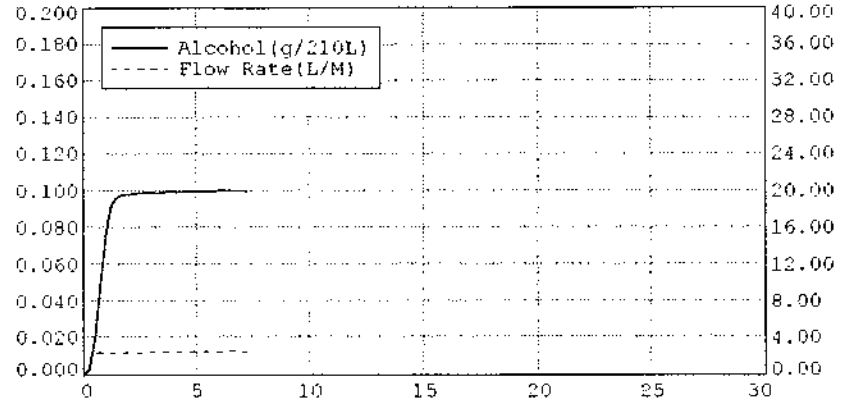
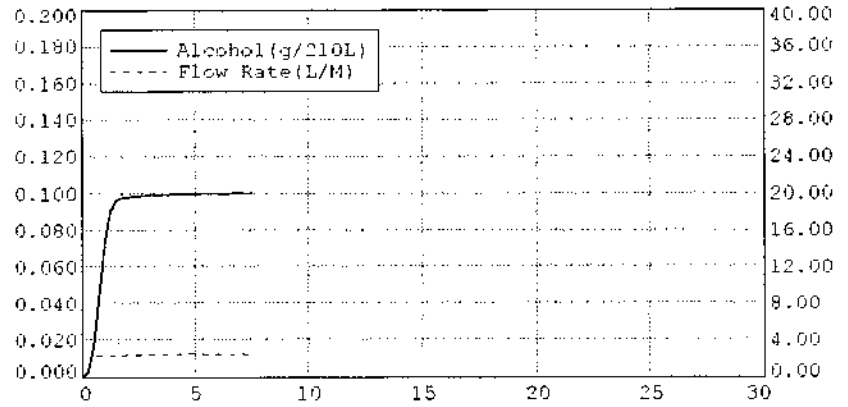
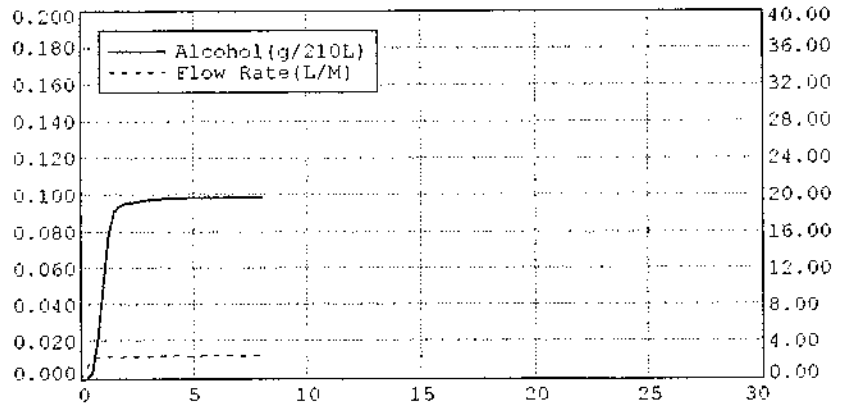
Date: 10/10/2017  
 Time: 10:12:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.94: 0.100  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 813 psi

BLANK TEST	0.000	10:13
INTERNAL STANDARD	VERIFIED	10:13
EXTERNAL STANDARD	0.100	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.101	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.101	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.101	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.101	10:18
BLANK TEST	0.000	10:19

Average = 0.1008  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
DATAMASTER dmt: 100411

Date: 10/10/2017  
Time: 10:20:56

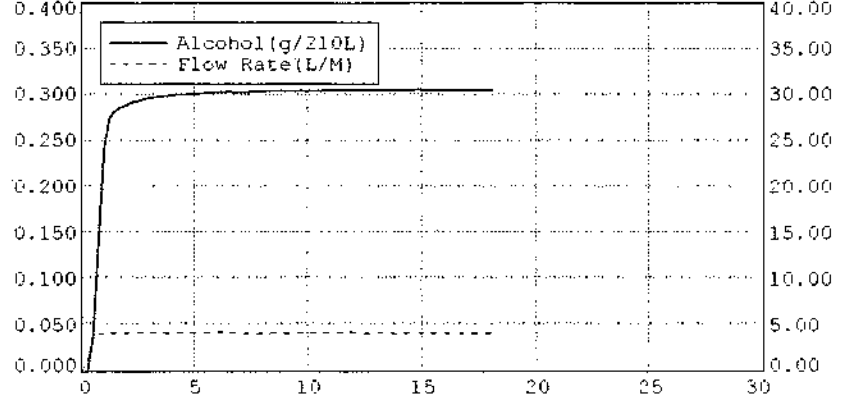
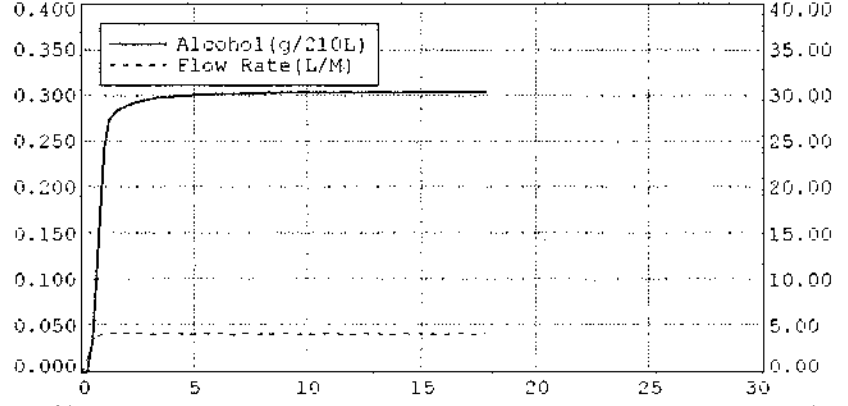
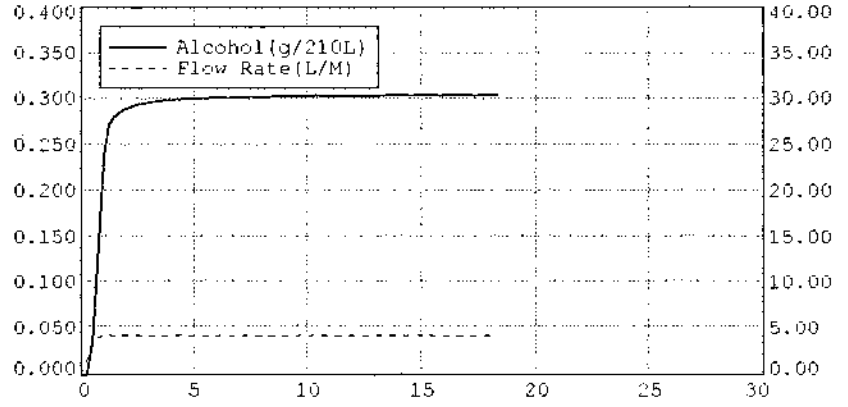
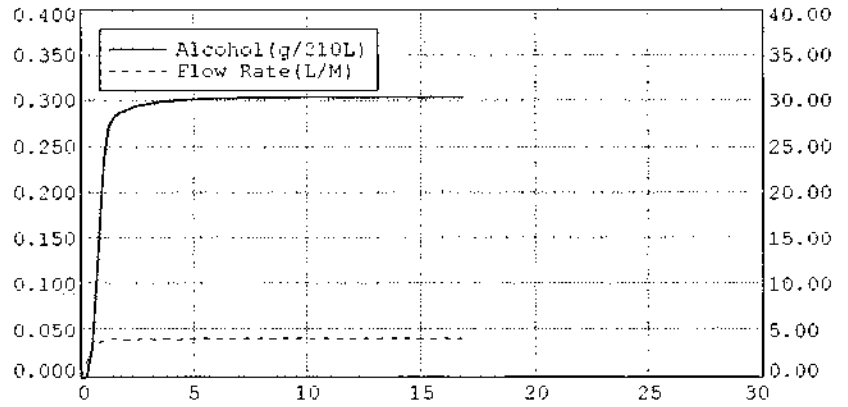
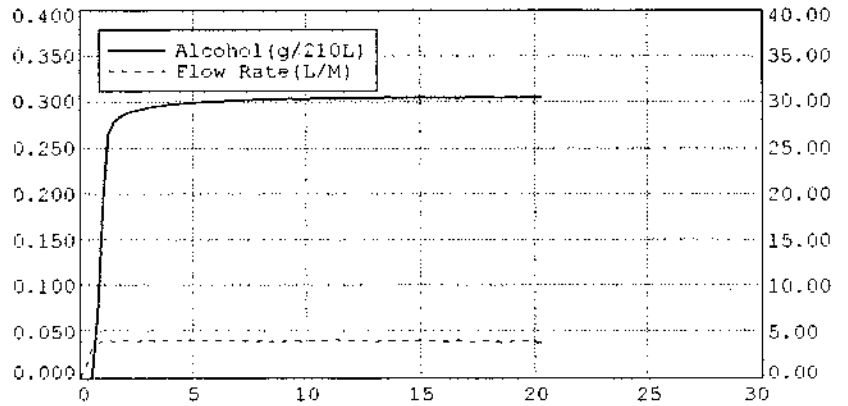
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
LOT #: 16410  
EXPIRATION: 12/19/2018

BLANK TEST	0.000	10:21
INTERNAL STANDARD	VERIFIED	10:22
EXTERNAL STANDARD	0.304	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.304	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.303	10:25
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.304	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.304	10:27
BLANK TEST	0.000	10:28

Average = 0.3038  
Std Dev = 0.0004

*Simulator DR4162  
Calibrated 3/27/17  
COB 10/10/17*





DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100671  
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Date: 10/10/2017  
Time: 10:00:57

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
Breath Tube = 47.3°C PASSED

PUMP INFO  
Flow Rate = 4.651 L/M PASSED

DETECTOR INFO  
PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO  
Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

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DATAMASTER dmt: 100671  
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Date: 10/10/2017  
Time: 10:04 AM

Temperatures (°C)

Sample Cell: 48.9°C  
Breath Tube: 47.5°C

Current Barometer 29.9 in  
Volume (Ltr) 0.00

Settings

Lamp: 1.67 V  
Bias: 80 V  
Cooler: 1.76 V  
Chopper: 543 Hz

Voltages (V)

Flow: 1.06 V  
Detector: 0.086 V

LINERITY CHECK

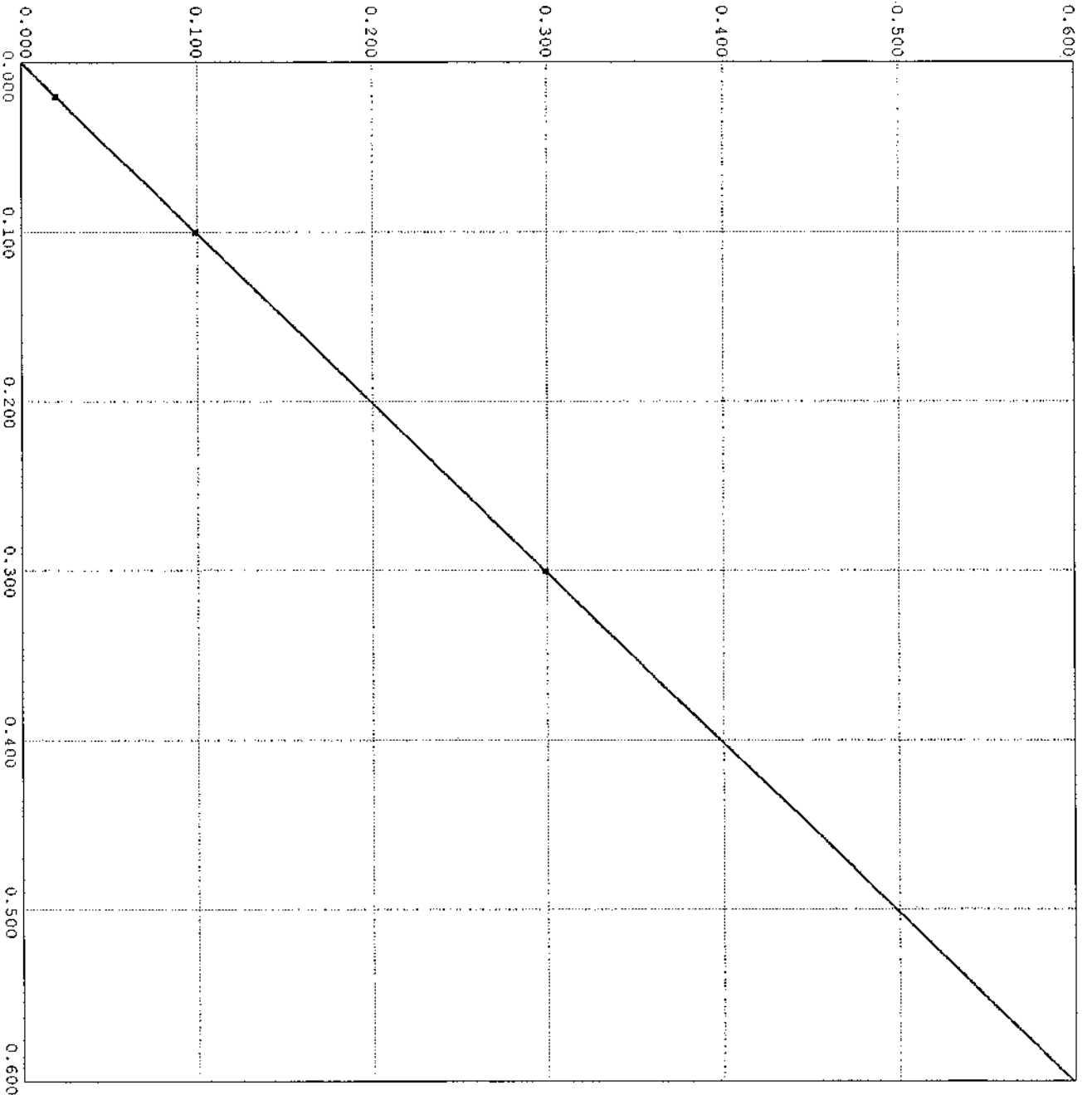
Alaska Department of Public Safety  
DATAMASTER dmt: 100671

Date: 10/10/2017  
Time: 10:16:47

SUPERVISOR NAME:  
COLLEEN S OBRVANT  
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.100	0.1000	0.0000
0.300	0.2998	0.0004

SLOPE = 0.998077  
R<sup>2</sup> = 0.999999



MS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100671

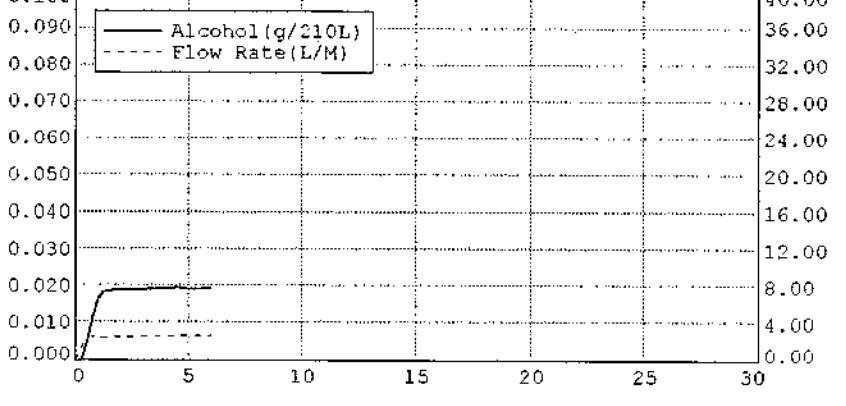
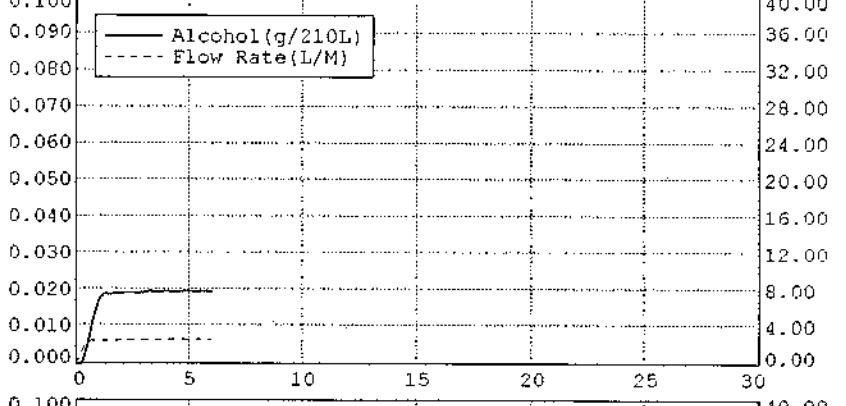
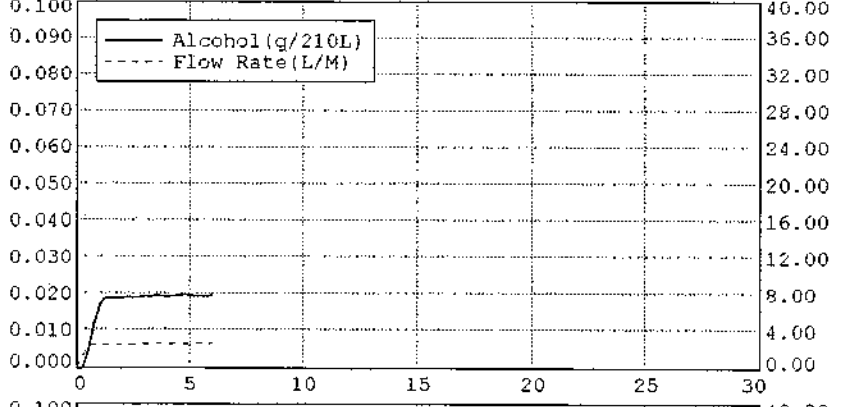
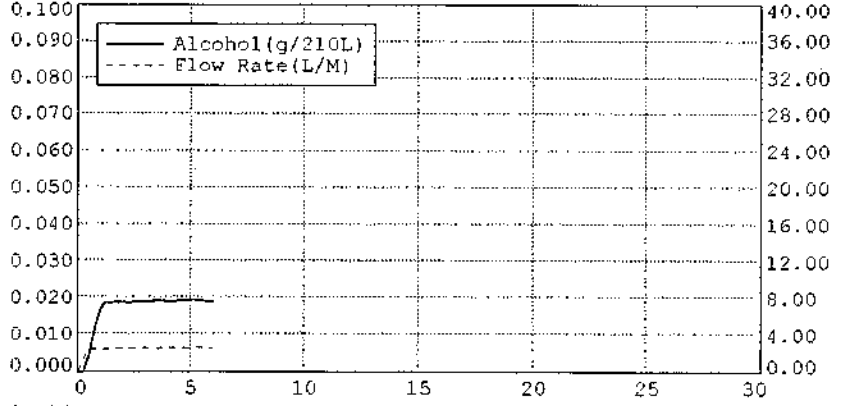
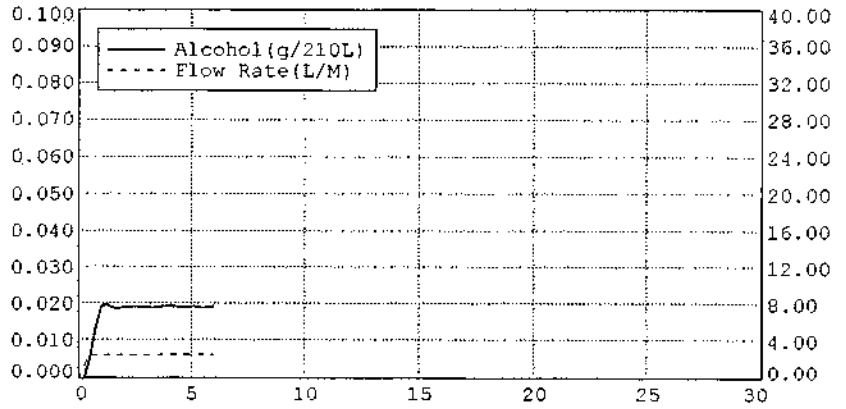
Date: 10/10/2017  
 Time: 10:16:49

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.94: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 556 psi

BLANK TEST	0.000	10:30
INTERNAL STANDARD	VERIFIED	10:30
EXTERNAL STANDARD	0.020	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.020	10:31
BLANK TEST	0.000	10:32
EXTERNAL STANDARD	0.021	10:33
BLANK TEST	0.000	10:33
EXTERNAL STANDARD	0.021	10:34
BLANK TEST	0.000	10:35
EXTERNAL STANDARD	0.020	10:35
BLANK TEST	0.000	10:36

Average = 0.0204  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100671

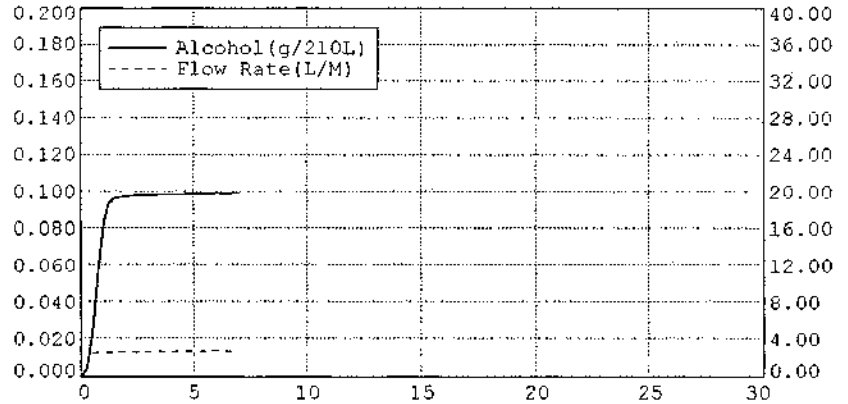
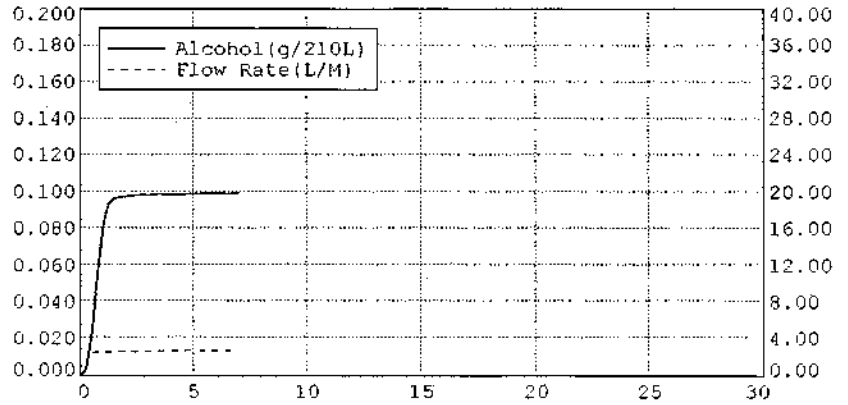
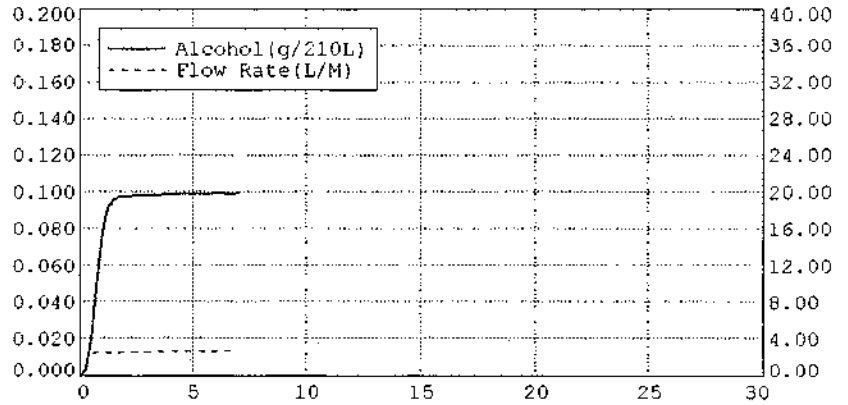
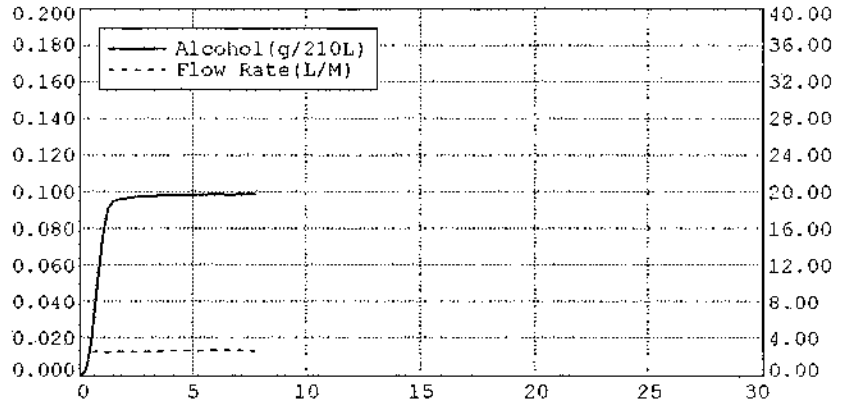
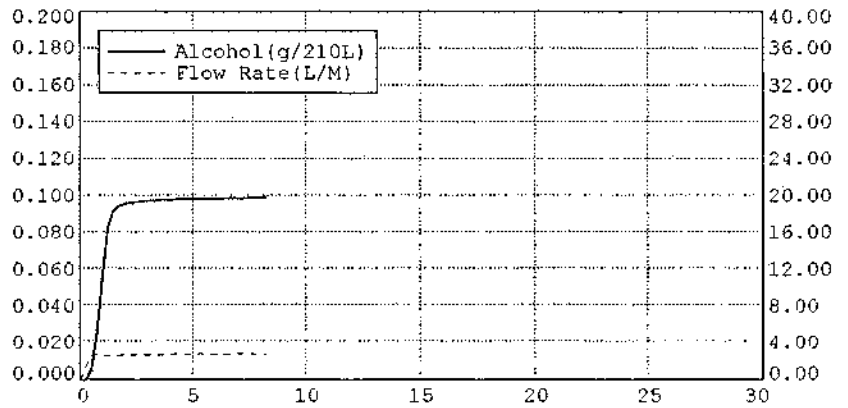
Date: 10/10/2017  
 Time: 10:37:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.95: 0.100  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 798 psi

BLANK TEST	0.000	10:38
INTERNAL STANDARD	VERIFIED	10:38
EXTERNAL STANDARD	0.100	10:39
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.100	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.100	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.100	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.100	10:43
BLANK TEST	0.000	10:44

Average = 0.1000  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100671

Date: 10/10/2017  
 Time: 10:46:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 16410  
 EXPIRATION: 12/19/2018

BLANK TEST	0.000	10:47
INTERNAL STANDARD	VERIFIED	10:47
EXTERNAL STANDARD	0.300	10:47
BLANK TEST	0.000	10:48
EXTERNAL STANDARD	0.299	10:49
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.300	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.300	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.300	10:53
BLANK TEST	0.000	10:54

Average = 0.2998  
 Std Dev = 0.0004

*Simulator DR4162  
 calibrated 3/27/17  
 COS 10/10/17*

