

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 7/10/2015  
Effective: 7/10/2015

Version: DMCEF 2015 R1  
Status: Active

Instrument S/N 100413 Analyst Brandi Barnett Start Date 9/16/15

1. Diagnostic Test (attached)  Internal Standard value  $\leq 3.00\%$  Yes

1. Voltage Checks

a. Adjust voltages, if needed

i. Lamp (2.6V Maximum)

ii. Bias

iii. Cooler (2.0V Maximum)

iv. Chopper Frequency

v. Detector Voltage (-0.100V to 0.100V)

b. Set RFI

c. Adjust barometer reading to match NIST traceable barometer

d. Adjust volume setting, if needed (1.5L +/- 0.1L)

e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

i. 0.020g/210L Mnf ILMO Lot 02915020A2 Exp 3/5/17

ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17

iii. 0.080g/210L Mnf ILMO Lot 09214080A2 Exp 5/1/16

iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17

v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/11/17

1. Simulator S/N DR4162 Date Calibrated 1/19/15

vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/16

1. Simulator S/N DR6267 Date Calibrated 01/20/15

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 14110 Level 0.100 Exp 5/1/16

1. Simulator S/N DR4163 Date Calibrated 1/19/15

ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17

1. Simulator S/N 501176 Date Calibrated 1/20/15

iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17

1. Simulator S/N DR4178 Date Calibrated 1/19/15

e. RFI

6. Verify stylus is calibrated

9. Verification of Calibration

7. Reset Options

10. Non-Drinking Subject Test (attached)

8. Clear Memory

11. Upload

13. Remove tank prior to shut down

End Date 9/17/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100413  
-----

Date: 09/16/2015  
Time: 10:55:57

VERSIONS  
DMT: 3.01  
PIC: 3.02  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.80 V PASSED  
(1.08 V - 2.52 V)  
Cooler Voltage = 1.59 V PASSED  
(0.95 V - 2.23 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 540 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 28.9 in

PUMP INFO

Flow Rate = 4.987 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 = 0.093 1.57% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100413  
-----

Date: 09/16/2015  
Time: 11:11 AM

Temperatures (°C)

Sample Cell: 48.7°C  
Breath Tube: 48.0°C

Current Barometer 29.2 in  
Volume (Ltr) 1.53

Settings

Lamp: 1.91 V  
Bias: 79 V  
Cooler: 1.77 V  
Chopper: 540 Hz

Voltages (V)

Flow: 1.05 V  
Detector: 0.004 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100413  
-----

Date: 09/14/2015  
Time: 14:27:59

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.979791 0.800 <= CAL < 1.200  
b1 = 0.0001 0.0000 <= b1 < 0.0040  
b2 = 0.0039 0.0010 <= b2 < 0.0100  
b3 = 0.0000 0.0000 <= b3 < 0.0040  
Xq = 0.0945 0.0500 <= Xq < 0.2000  
a21 = 1.129336 1.050 <= a21 < 1.300  
a31 = 0.441836 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/16/2015  
Time: 11:15:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

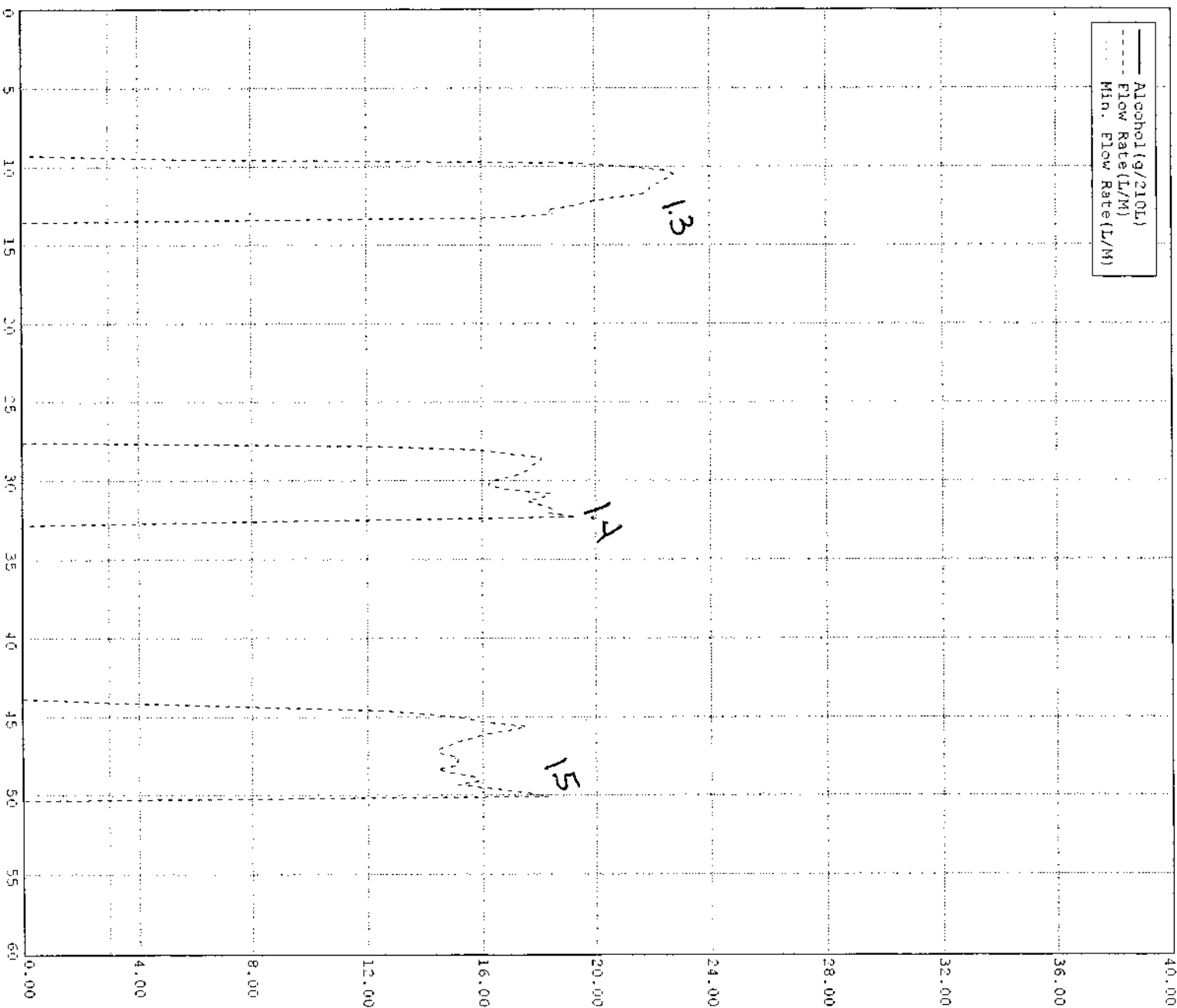
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.21: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	11:16
BLANK TEST	0.000	11:16
INTERNAL STANDARD	VERIFIED	11:16
EXTERNAL STANDARD	0.076	11:16
BLANK TEST	0.000	11:17
SUBJECT SAMPLE (Vol=1.54L)	0.000	11:18
BLANK TEST	0.000	11:19
EXTERNAL STANDARD	0.076	11:19
BLANK TEST	0.000	11:21

*BMP*



LINEARITY CHECK

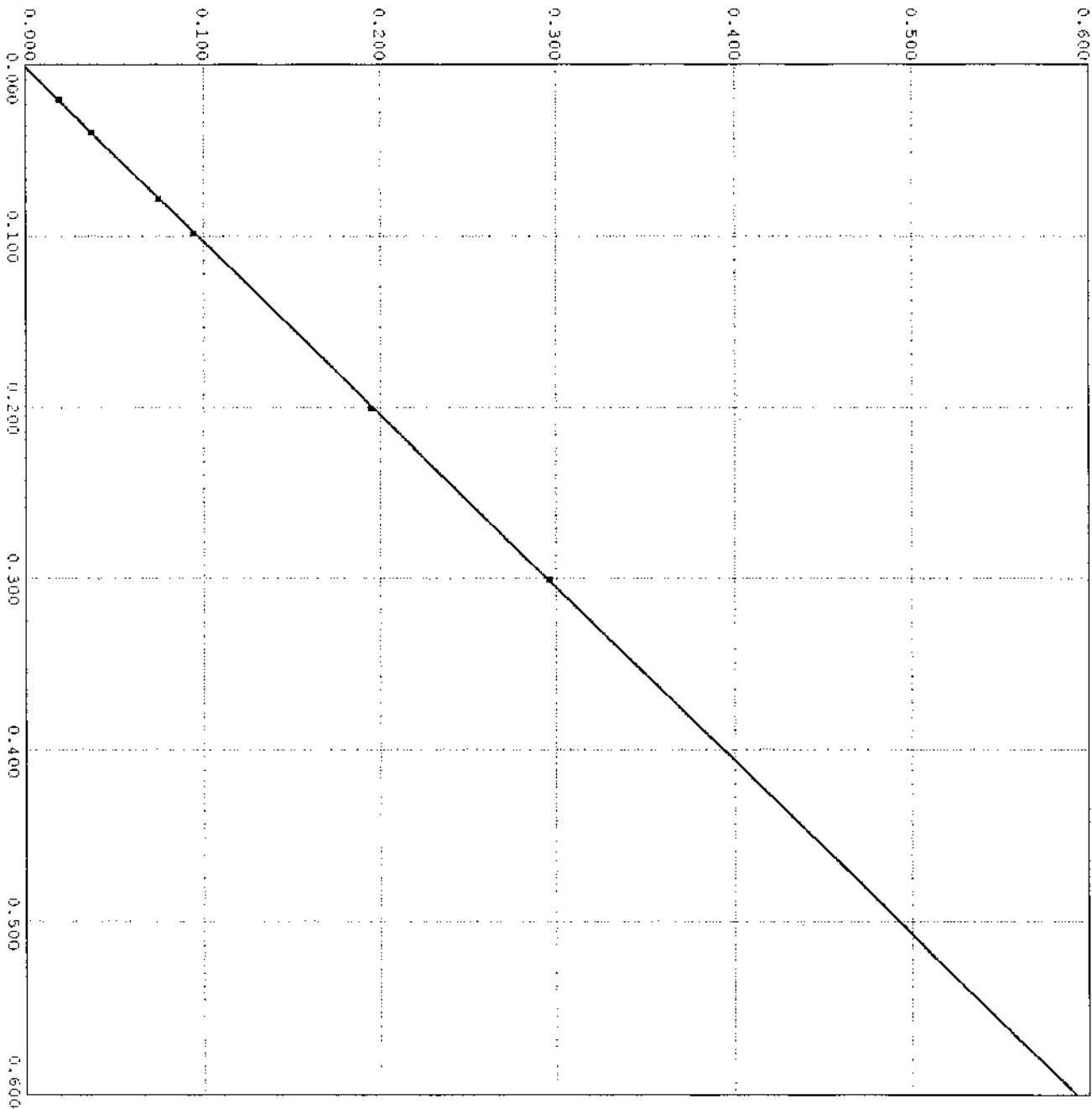
Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/16/2015  
Time: 13:22:26

SUPERVISOR NAME:  
BRANDI BARRETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0196	0.0005
0.039	0.0382	0.0004
0.078	0.0756	0.0005
0.098	0.0954	0.0005
0.200	0.1956	0.0005
0.300	0.2972	0.0004

SLOPE = 0.990278  
R<sup>2</sup> = 0.999909



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100413

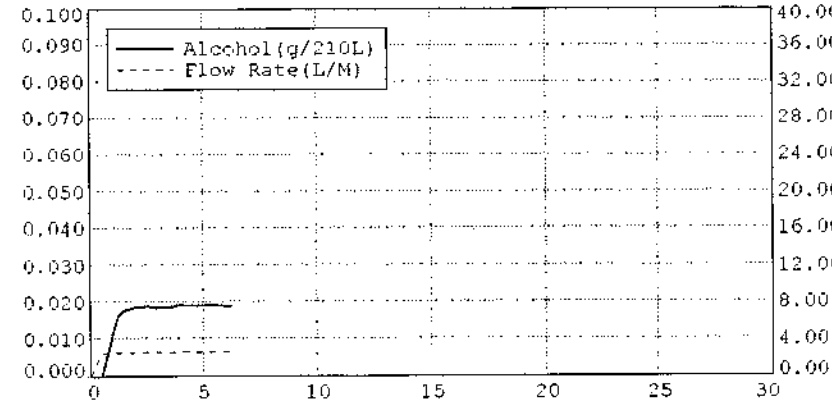
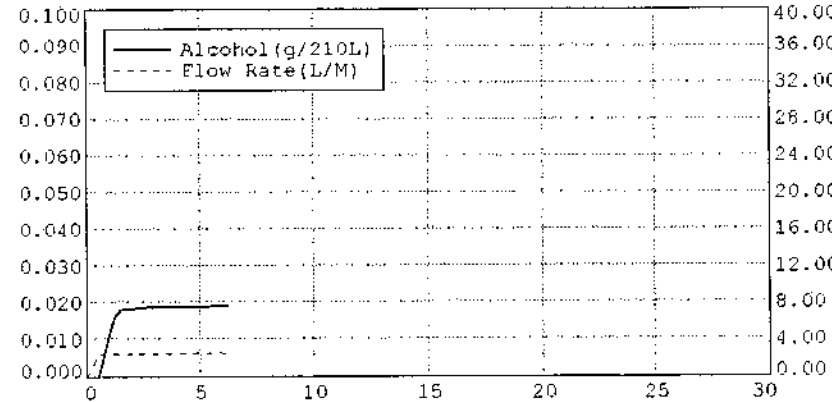
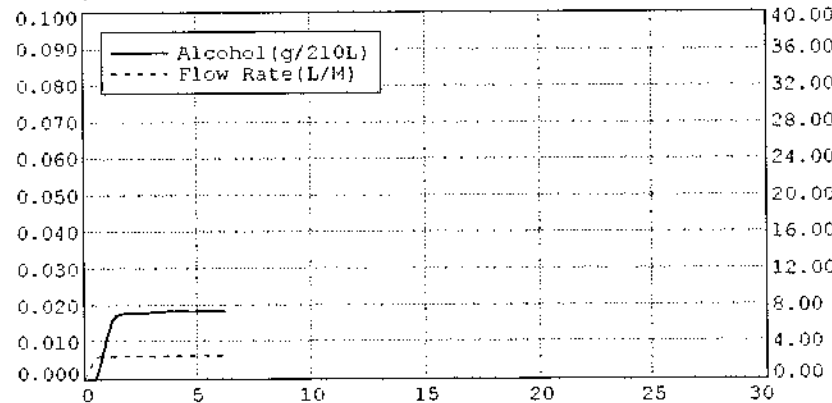
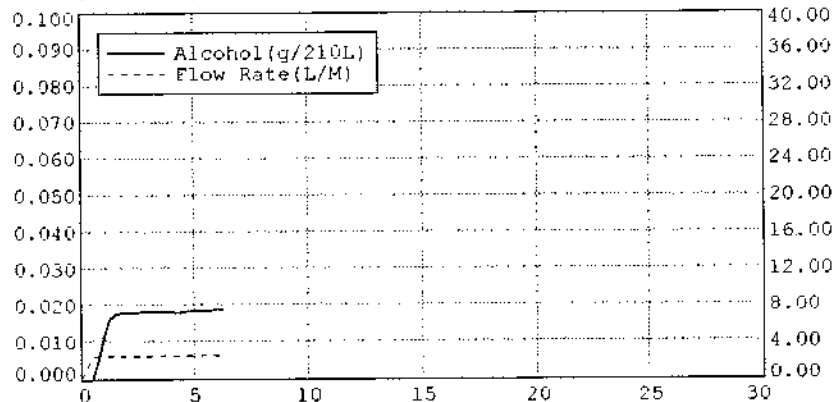
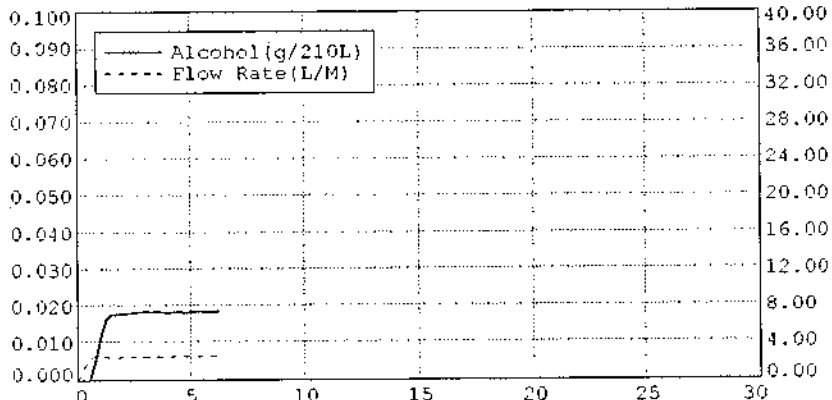
Date: 09/16/2015  
 Time: 13:22:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.20: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 343 psi

BLANK TEST	0.000	13:23
INTERNAL STANDARD	VERIFIED	13:23
EXTERNAL STANDARD	0.020	13:24
BLANK TEST	0.000	13:25
EXTERNAL STANDARD	0.019	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.019	13:26
BLANK TEST	0.000	13:27
EXTERNAL STANDARD	0.020	13:27
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.020	13:28
BLANK TEST	0.000	13:29

Average = 0.0196  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100413

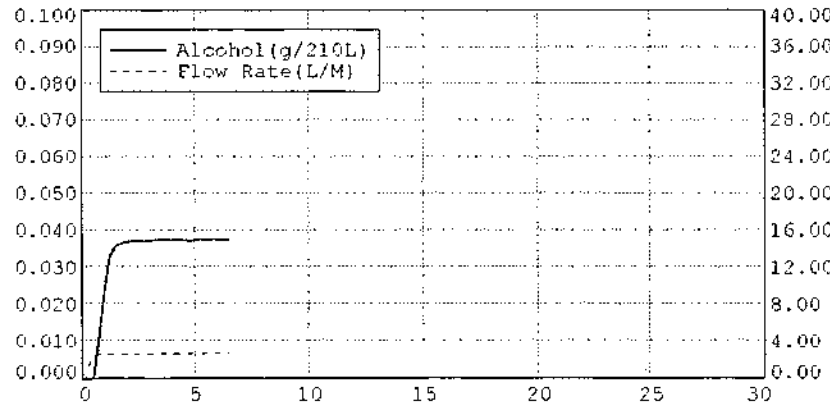
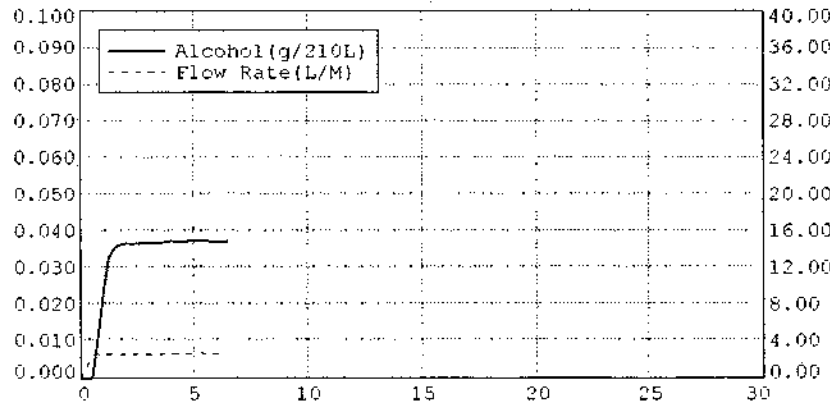
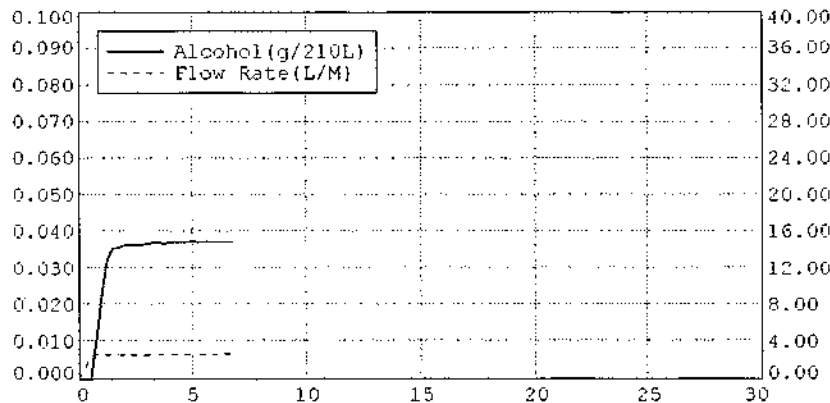
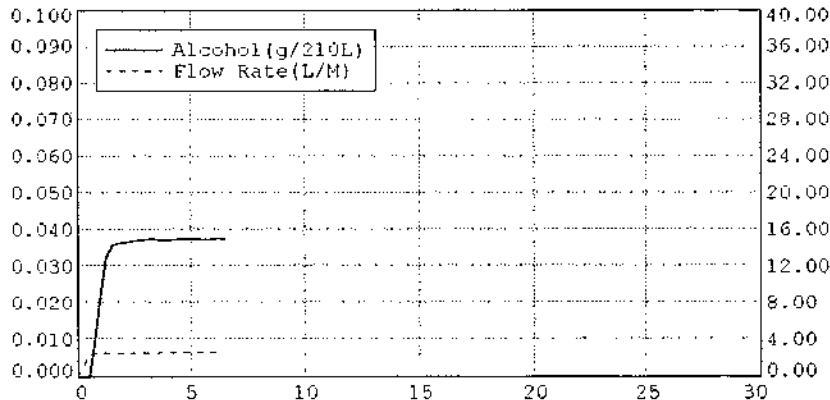
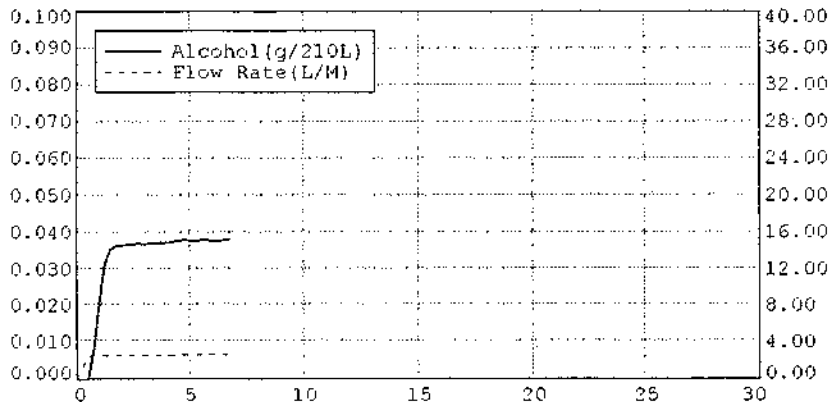
Date: 09/16/2015  
 Time: 13:34:20

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.20: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 426 psi

BLANK TEST	0.000	13:35
INTERNAL STANDARD	VERIFIED	13:35
EXTERNAL STANDARD	0.039	13:36
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.038	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.038	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.038	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.038	13:40
BLANK TEST	0.000	13:41

Average = 0.0382  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100413

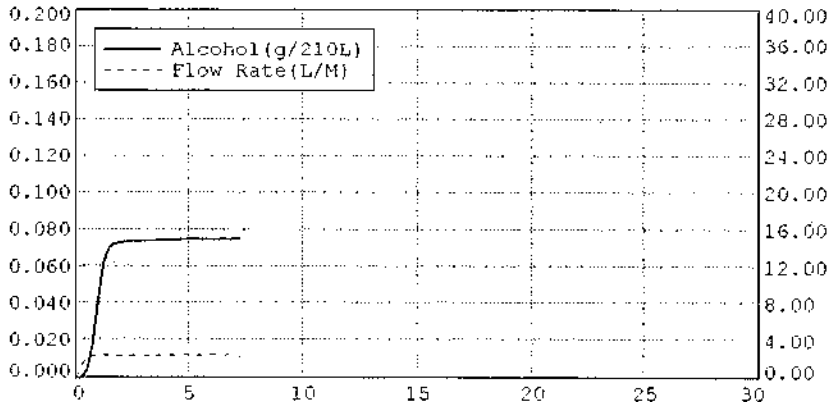
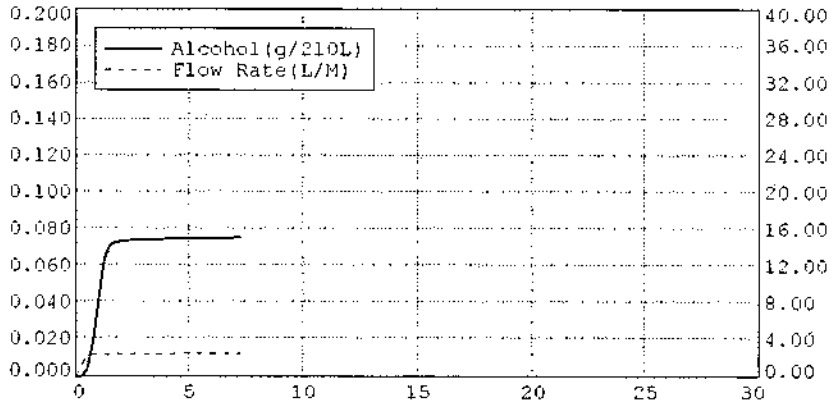
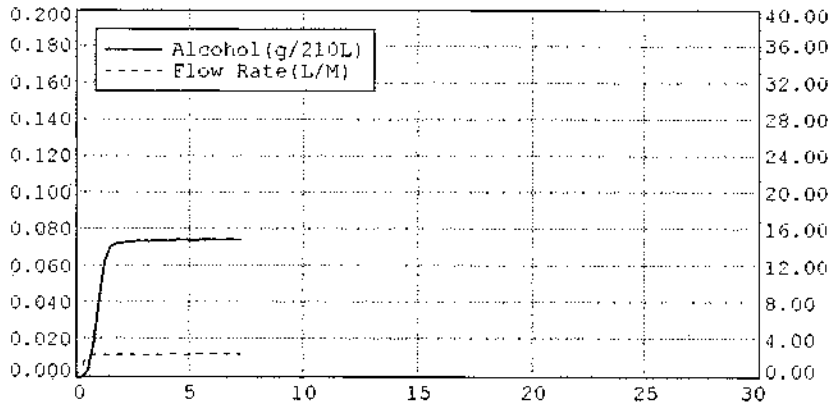
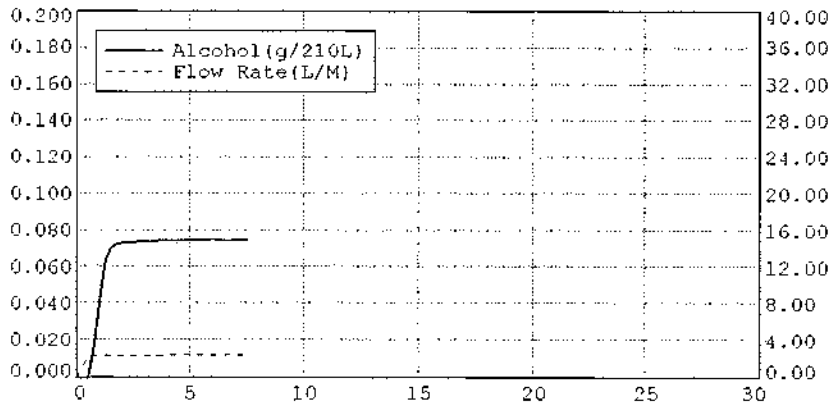
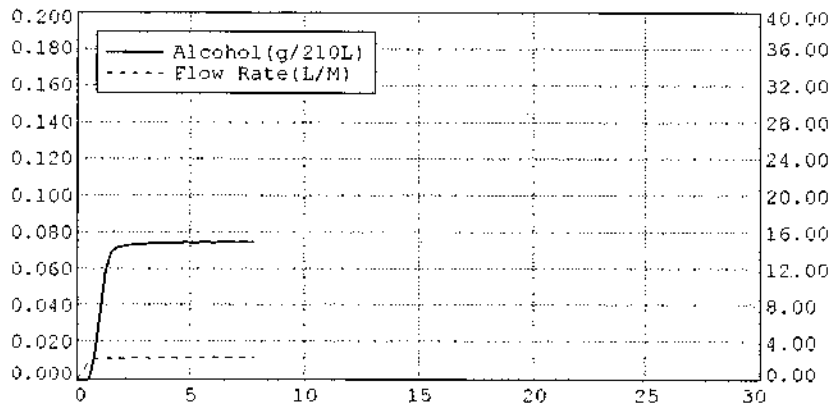
Date: 09/16/2015  
 Time: 13:43:31

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.20: 0.078  
 LOT #: 09214080A2  
 EXPIRATION: 05/01/2016  
 TANK PRESSURE: 187 psi

BLANK TEST	0.000	13:44
INTERNAL STANDARD	VERIFIED	13:44
EXTERNAL STANDARD	0.076	13:45
BLANK TEST	0.000	13:46
EXTERNAL STANDARD	0.075	13:46
BLANK TEST	0.000	13:47
EXTERNAL STANDARD	0.075	13:47
BLANK TEST	0.000	13:48
EXTERNAL STANDARD	0.076	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.076	13:49
BLANK TEST	0.000	13:50

Average = 0.0756  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100413

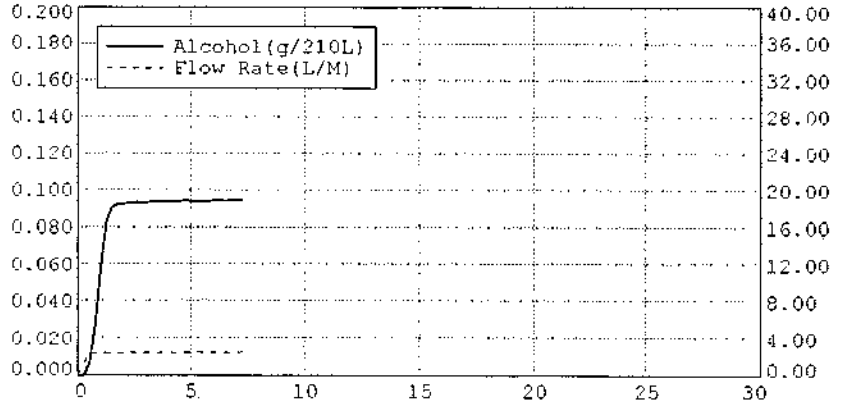
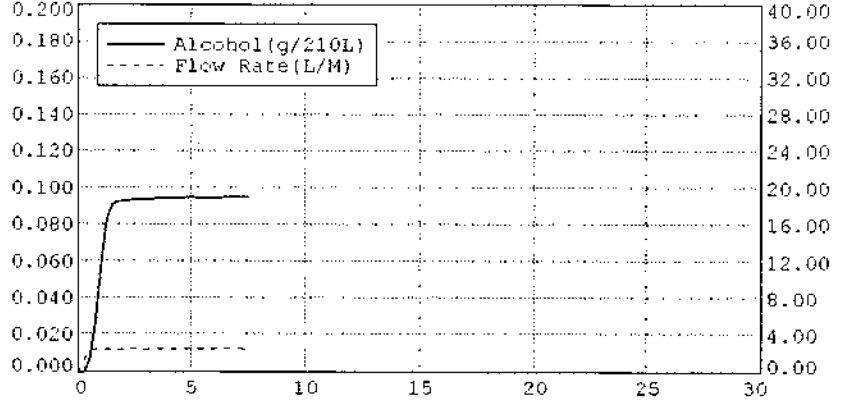
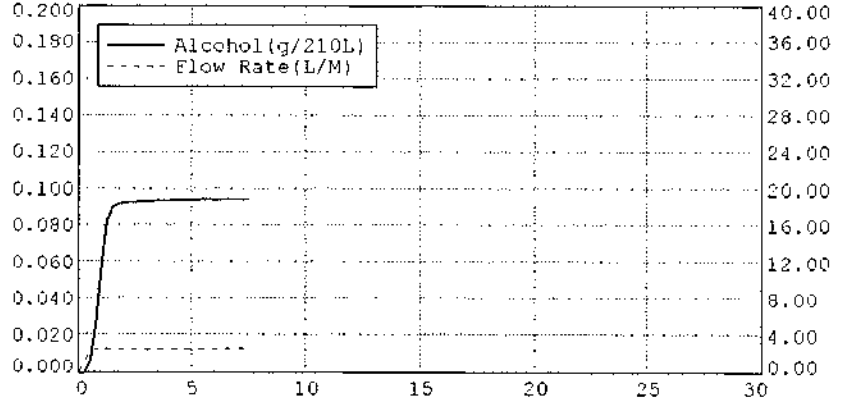
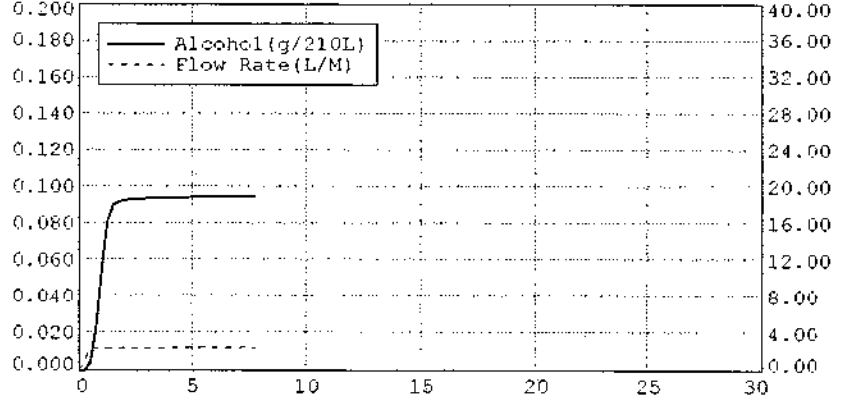
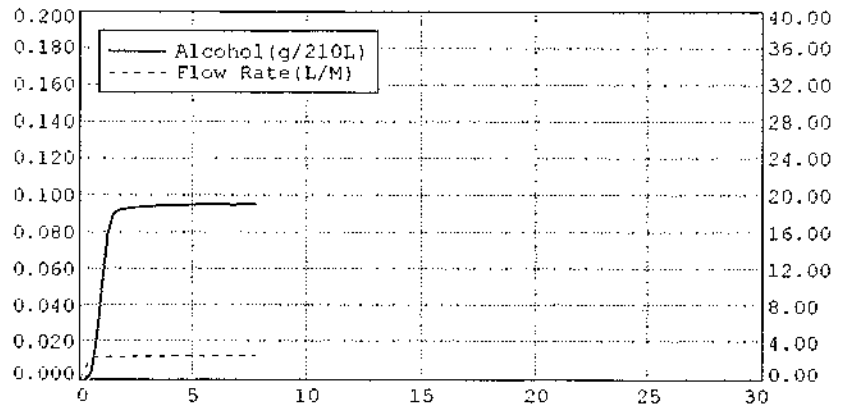
Date: 09/16/2015  
 Time: 13:51:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.19: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 272 psi

BLANK TEST	0.000	13:52
INTERNAL STANDARD	VERIFIED	13:53
EXTERNAL STANDARD	0.096	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.095	13:54
BLANK TEST	0.000	13:55
EXTERNAL STANDARD	0.095	13:55
BLANK TEST	0.000	13:56
EXTERNAL STANDARD	0.096	13:57
BLANK TEST	0.000	13:58
EXTERNAL STANDARD	0.095	13:58
BLANK TEST	0.000	13:59

Average = 0.0954  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100413

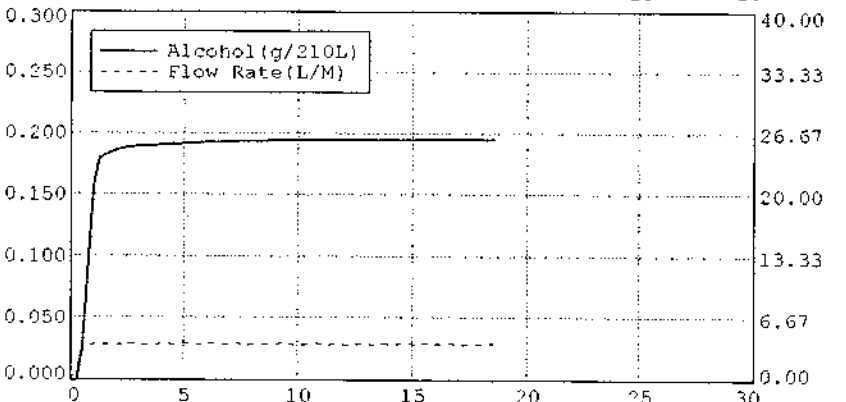
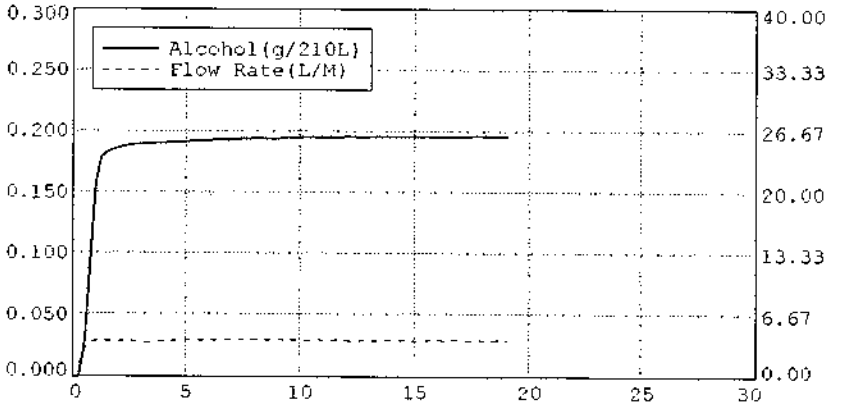
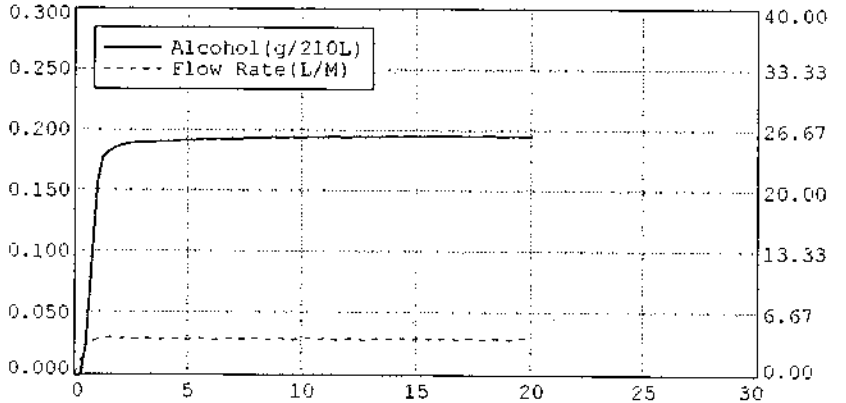
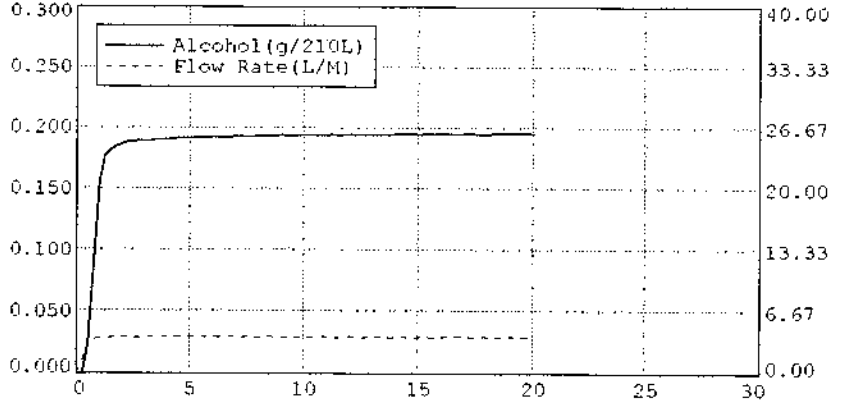
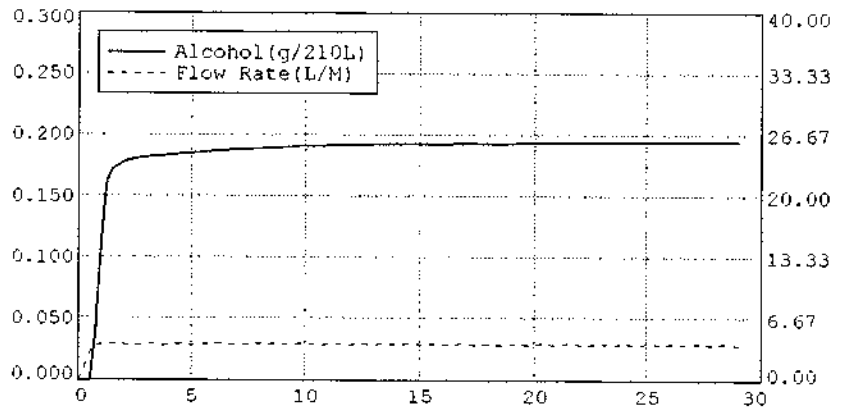
Date: 09/16/2015  
 Time: 14:04:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: GUTH 15130  
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	14:05
INTERNAL STANDARD	VERIFIED	14:05
EXTERNAL STANDARD	0.195	14:06
BLANK TEST	0.000	14:07
EXTERNAL STANDARD	0.196	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.195	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.196	14:10
BLANK TEST	0.000	14:11
EXTERNAL STANDARD	0.196	14:11
BLANK TEST	0.000	14:12

Average = 0.1956  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100413

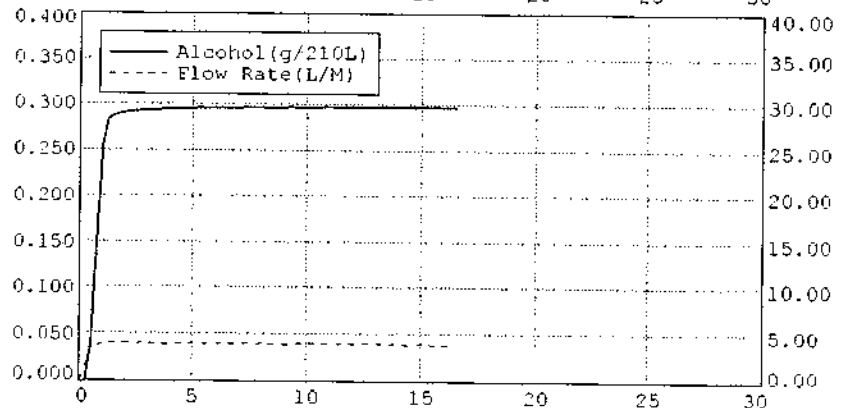
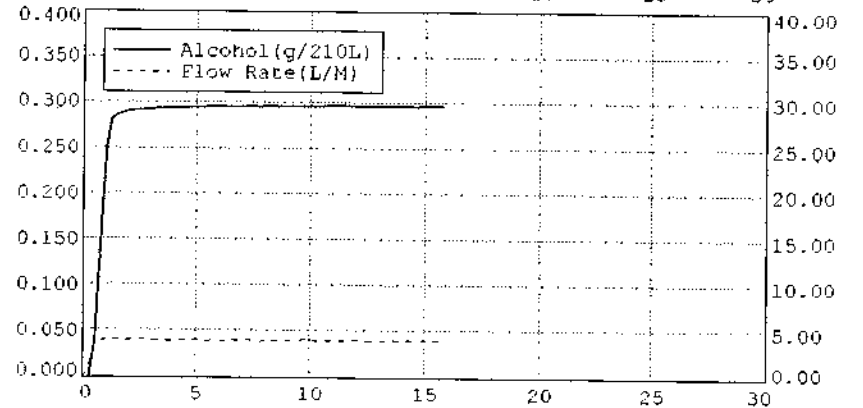
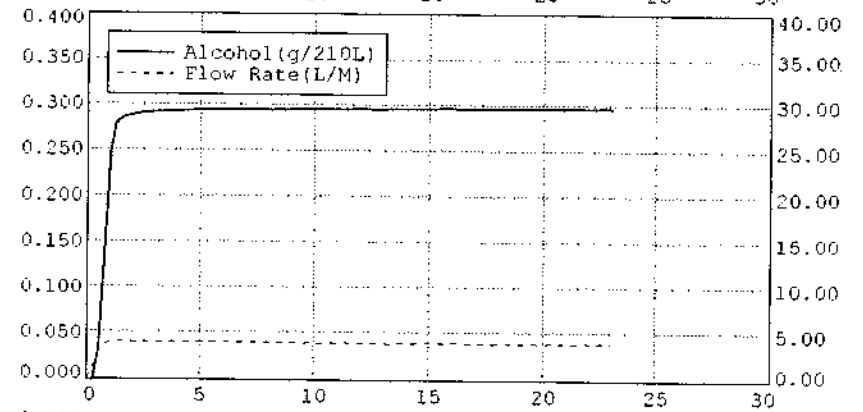
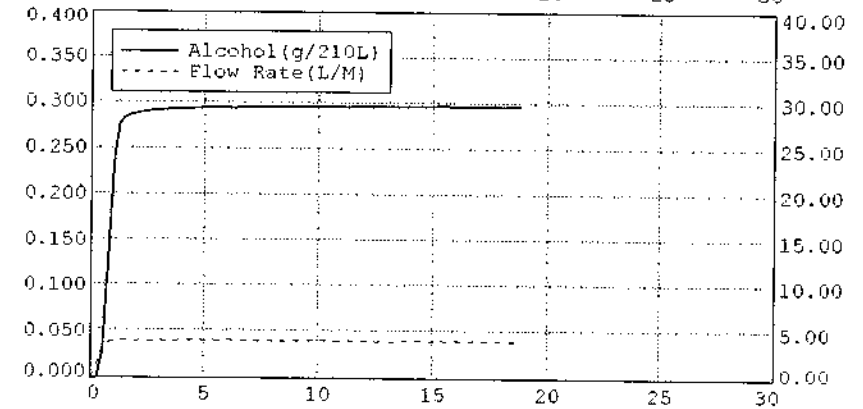
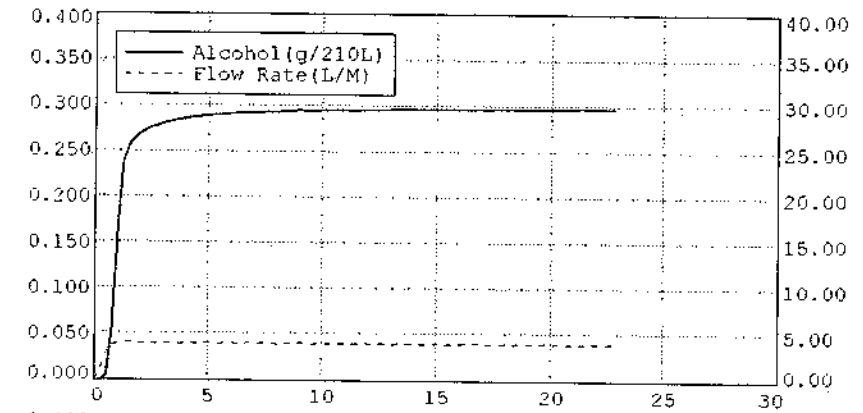
Date: 09/16/2015  
 Time: 14:16:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: GUTH 14270  
 EXPIRATION: 12/02/2016

BLANK TEST	0.000	14:17
INTERNAL STANDARD	VERIFIED	14:17
EXTERNAL STANDARD	0.297	14:17
BLANK TEST	0.000	14:19
EXTERNAL STANDARD	0.297	14:19
BLANK TEST	0.000	14:20
EXTERNAL STANDARD	0.297	14:21
BLANK TEST	0.000	14:22
EXTERNAL STANDARD	0.297	14:22
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.298	14:23
BLANK TEST	0.000	14:24

Average = 0.2972  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 09:05:47

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

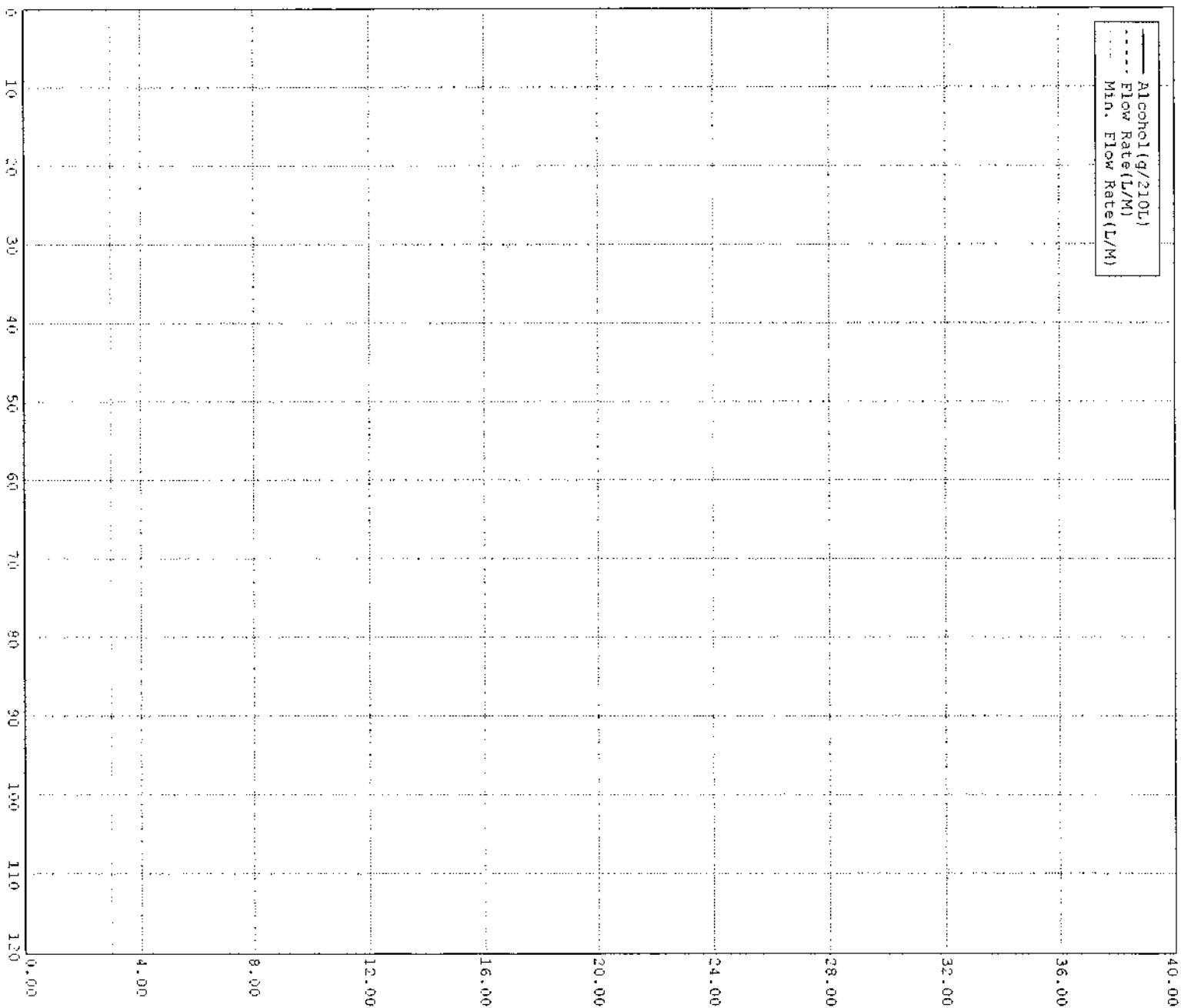
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INCOMPLETE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.03: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	09:06
BLANK TEST	0.000	09:07
INTERNAL STANDARD	VERIFIED	09:07
EXTERNAL STANDARD	0.076	09:07
BLANK TEST	0.000	09:08
SUBJECT SAMPLE	INCOMPLETE	09:10

*Handwritten signature/initials*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100413

Date: 09/17/2015  
Time: 09:12:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

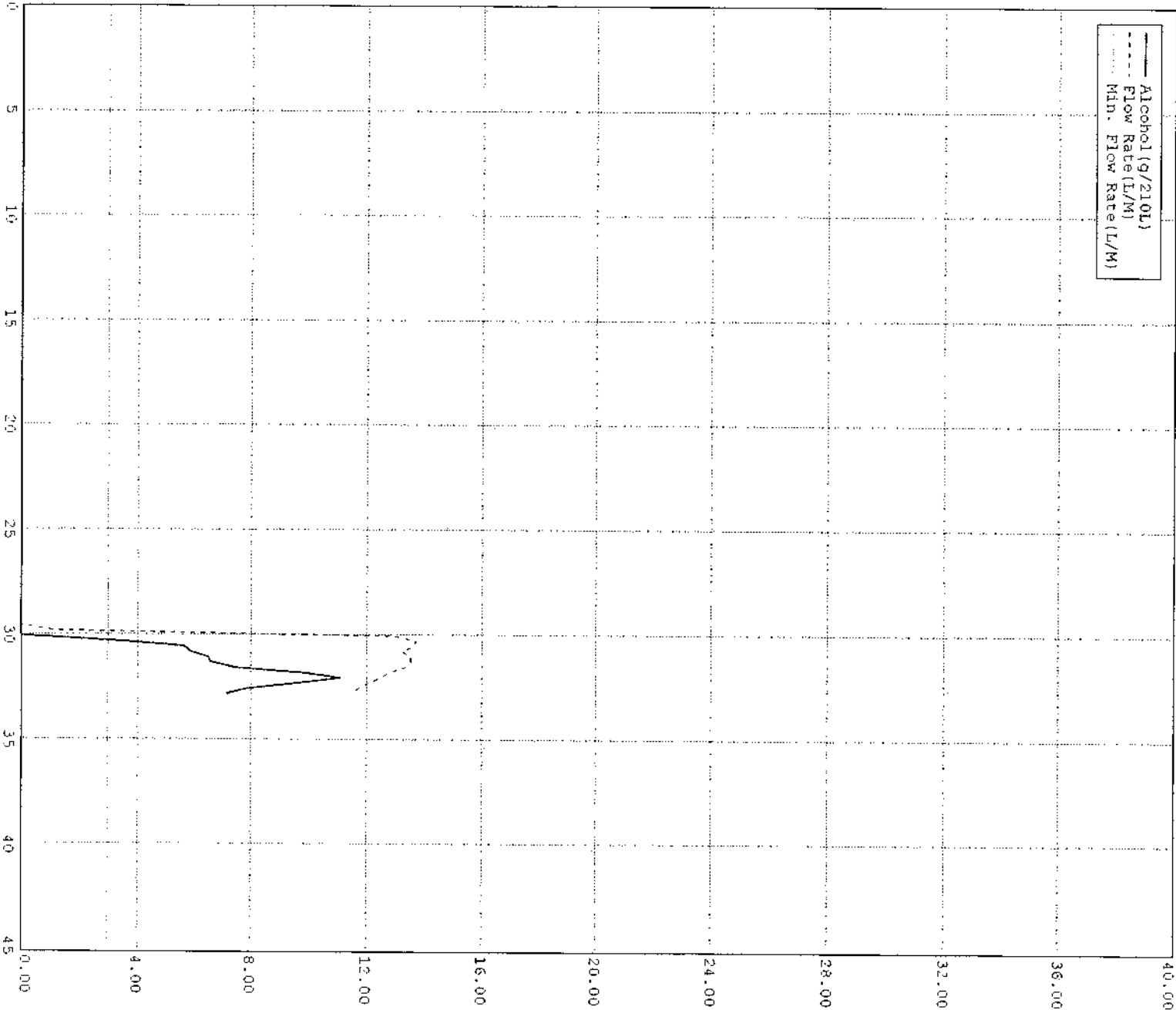
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INVALID  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.03: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK  
BLANK TEST PASSED 09:13  
INTERNAL STANDARD VERIFIED 09:13  
EXTERNAL STANDARD 0.075 09:14  
BLANK TEST 0.000 09:15  
SUBJECT SAMPLE INVALID 09:15

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 12:06:05

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

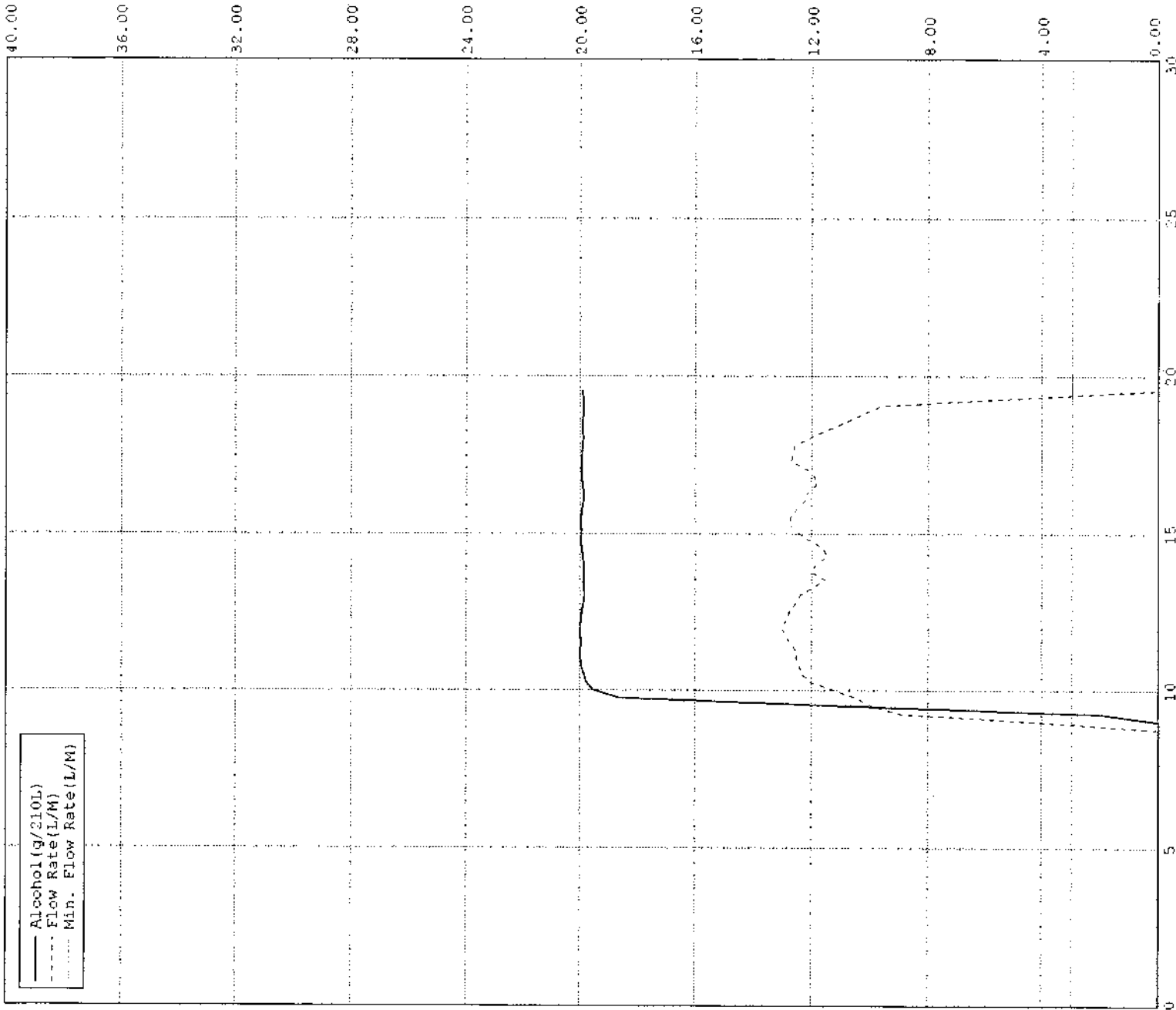
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.02: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	12:07
BLANK TEST	0.000	12:07
INTERNAL STANDARD	VERIFIED	12:07
Xq = 0.094 (0.83%)		
EXTERNAL STANDARD	0.075	12:07
X[1] = 0.0751 (-0.0006) (0.0024)		
BLANK TEST	0.000	12:08
SUBJECT SAMPLE	XXX	12:08
X[1] = 0.1003 (-0.0158) (-0.0010)		

Interference Detected

Filter 2 Avg: -0.0006  
Filter 3 Avg: 0.0019

BMB 9/18/15



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 12:12:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

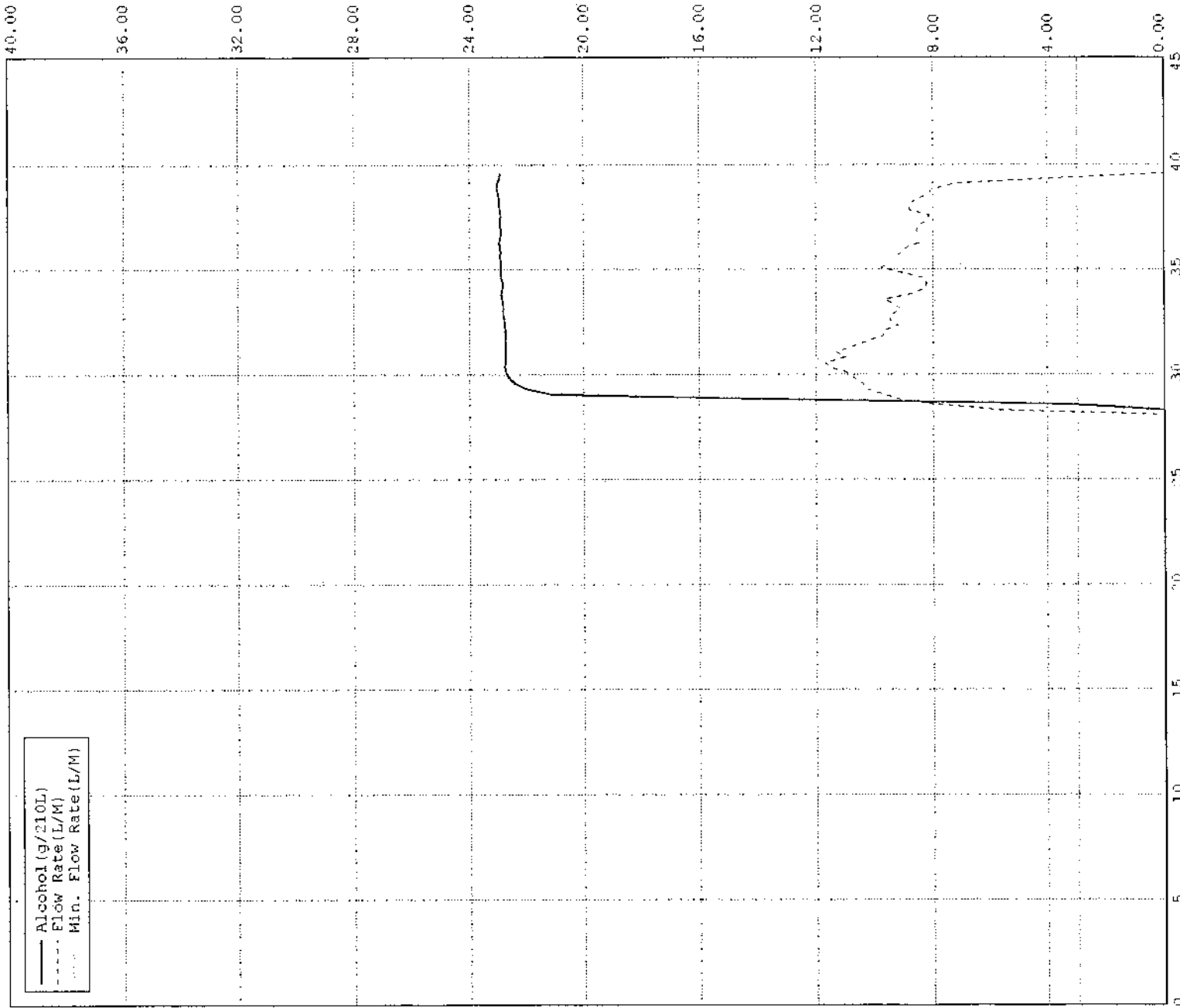
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.01: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 12:13  
BLANK TEST 0.000 12:13  
INTERNAL STANDARD VERIFIED 12:13  
Xq = 0.094 (0.74%)  
EXTERNAL STANDARD 0.076 12:14  
X[1] = 0.0759 (-0.0007) (0.0015)  
BLANK TEST 0.000 12:15  
SUBJECT SAMPLE XXX 12:15  
X[1] = 0.1153 (-0.0205) (0.0006)

Interference Detected

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 09:39:50

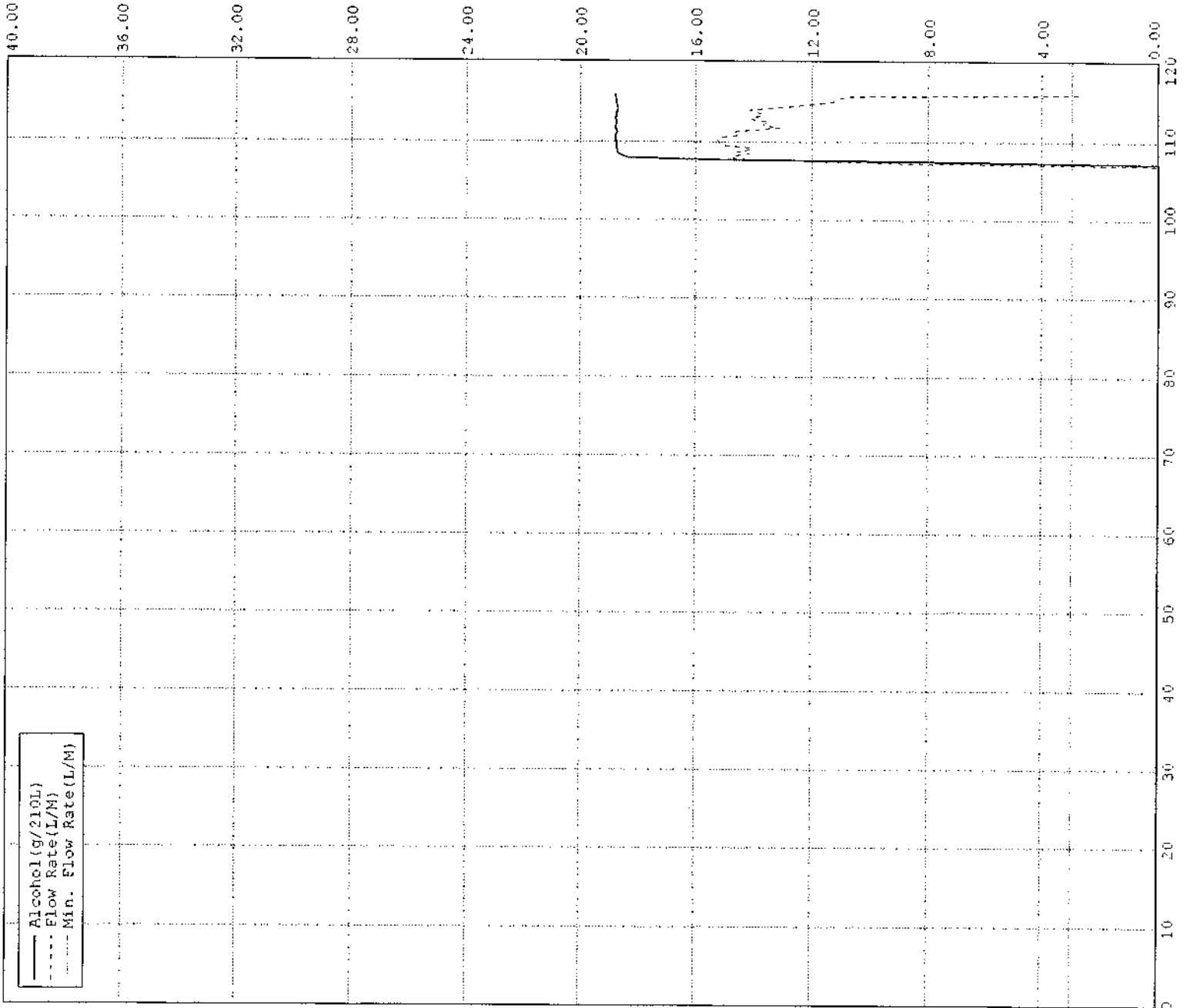
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INTERFERENCE NEGATIVE CONTROL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.03: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	09:41
BLANK TEST	0.000	09:41
INTERNAL STANDARD	VERIFIED	09:41
$Xq = 0.094$ (0.93%)		
EXTERNAL STANDARD	0.075	09:41
$X[1] = 0.0755$ (-0.0004)	(0.0023)	
BLANK TEST	0.000	09:42
SUBJECT SAMPLE (Vol=1.98L)	0.094	09:44
$X[1] = 0.0947$ (-0.0005)	(0.0004)	
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.076	09:46
$X[1] = 0.0758$ (-0.0006)	(0.0012)	
BLANK TEST	0.000	09:47



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 09:30:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

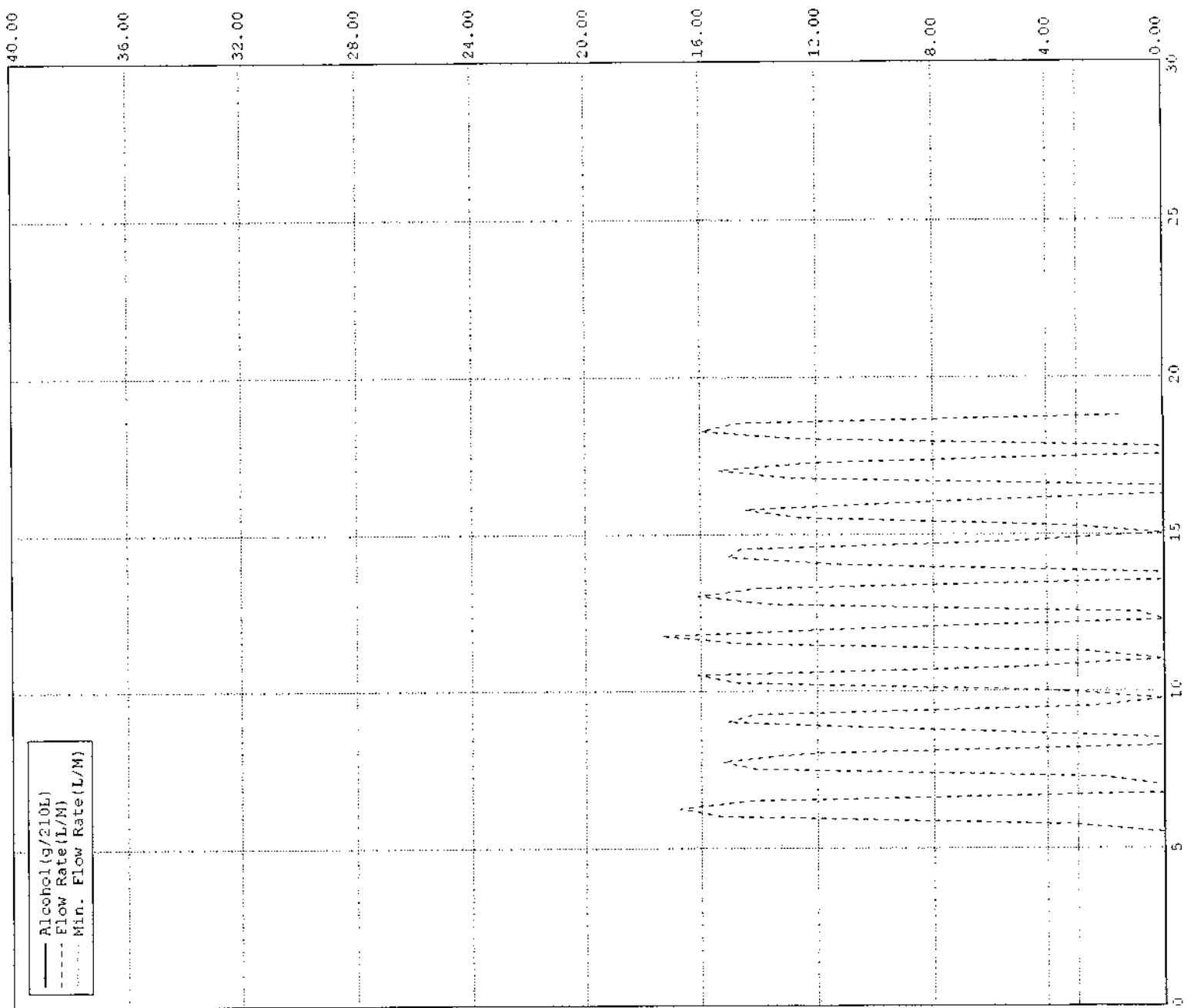
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.03: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 09:31  
BLANK TEST 0.000 09:31  
INTERNAL STANDARD VERIFIED 09:32  
EXTERNAL STANDARD 0.076 09:32  
BLANK TEST 0.000 09:33  
SUBJECT SAMPLE XXX 09:33

Maximum Attempts Exceeded

*femb*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 09:18:21

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:

RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

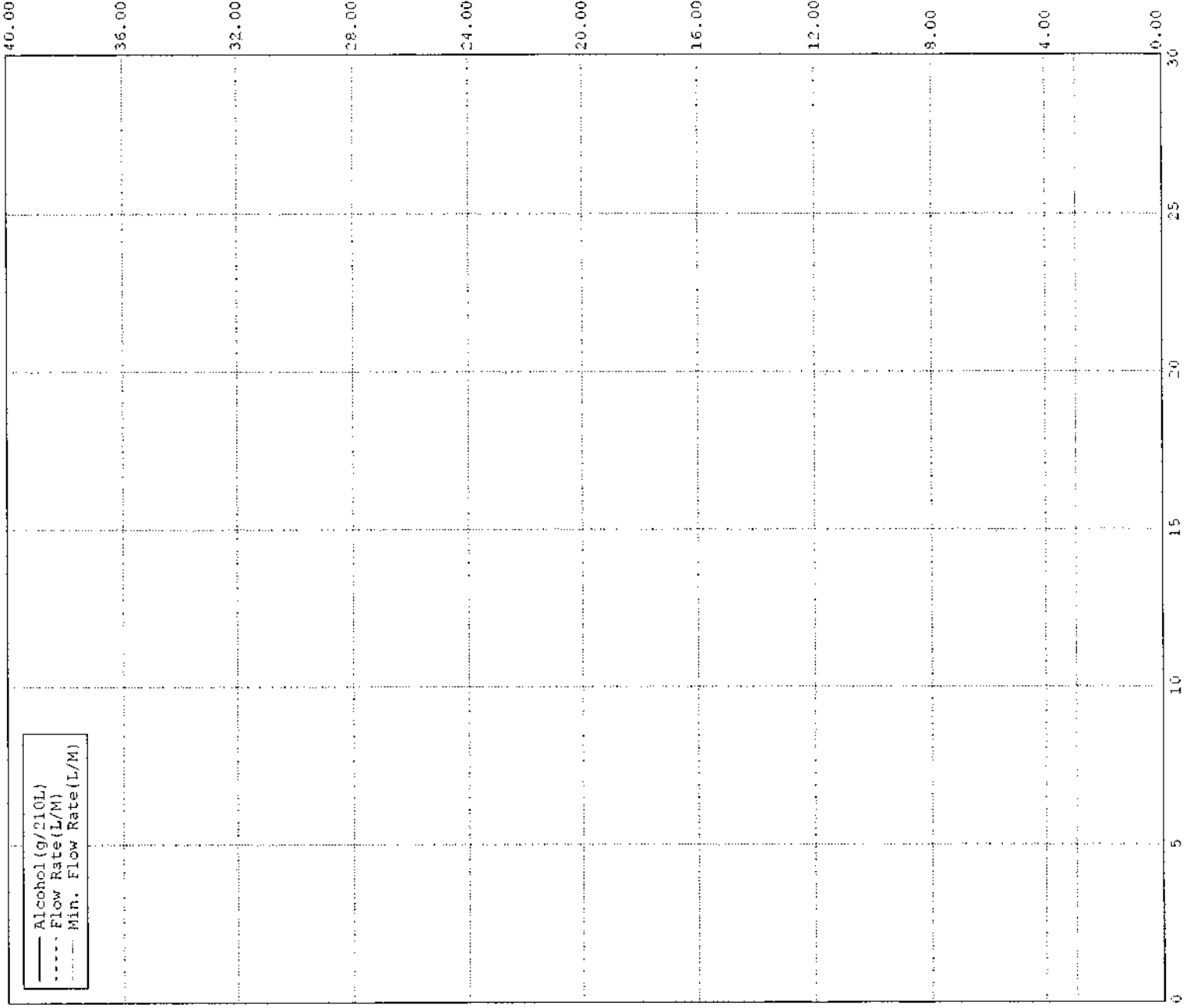
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.02: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 09:21  
BLANK TEST 0.000 09:21  
INTERNAL STANDARD VERIFIED 09:22  
EXTERNAL STANDARD 0.075 09:22  
BLANK TEST 0.000 09:23

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100413

Date: 09/17/2015  
Time: 12:37:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
NON DRINKING SUBJECT  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.02: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	12:39
BLANK TEST	0.000	12:39
INTERNAL STANDARD	VERIFIED	12:39
EXTERNAL STANDARD	0.077	12:39
BLANK TEST	0.000	12:40
SUBJECT SAMPLE (Vol=2.15L)	0.000	12:41
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.076	12:42
BLANK TEST	0.000	12:43

