

# 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 100363 Analyst Brandi Barnett Start Date 11/24/15

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 01315080A2 Exp 3/2/17
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/1/17
  - 1. Simulator S/N DR6267 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/02/2016
  - 1. Simulator S/N DR4162 Date Calibrated 1/19/15

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 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 SD1174 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
- 7. Reset Options
- 8. Clear Memory

- 9. Verification of Calibration
- 10. Non-Drinking Subject Test (attached)
- 11. Upload
- 13. Remove tank prior to shut down

End Date 11/25/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/24/2015  
Time: 12:02:26

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 = 1.66 V PASSED  
(1.04 V - 2.44 V)  
Cooler Voltage = 1.69 V PASSED  
(1.03 V - 2.39 V)  
Bias Voltage = 79 V PASSED  
(48 V - 112 V)  
Chopper Freq = 533 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.561 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  
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.097 0.81% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100363  
-----

Date: 11/24/2015  
Time: 12:06 PM

Temperatures (°C)  
Sample Cell: 49.1°C  
Breath Tube: 48.1°C

Current Barometer 29.7 in  
Volume (Ltr) 1.49

Settings  
Lamp: 1.72 V  
Bias: 80 V  
Cooler: 1.69 V  
Chopper: 532 Hz

Voltages (V)  
Flow: 1.05 V  
Detector: -0.042 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100363  
-----

Date: 08/26/2015  
Time: 05:04:59

OPERATOR NAME:  
NPAS

CERTIFICATE #: DR7001, 15040, 34.0C

Ca = 0.1010  
CAL = 0.986652    0.800 <= CAL < 1.200  
b1 = 0.0001    0.0000 <= b1 < 0.0040  
b2 = 0.0042    0.0010 <= b2 < 0.0100  
b3 = 0.0004    0.0000 <= b3 < 0.0040  
Xq = 0.0976    0.0500 <= Xq < 0.2000  
a21 = 1.169205    1.050 <= a21 < 1.300  
a31 = 0.435578    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/24/2015  
Time: 12:06:58

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

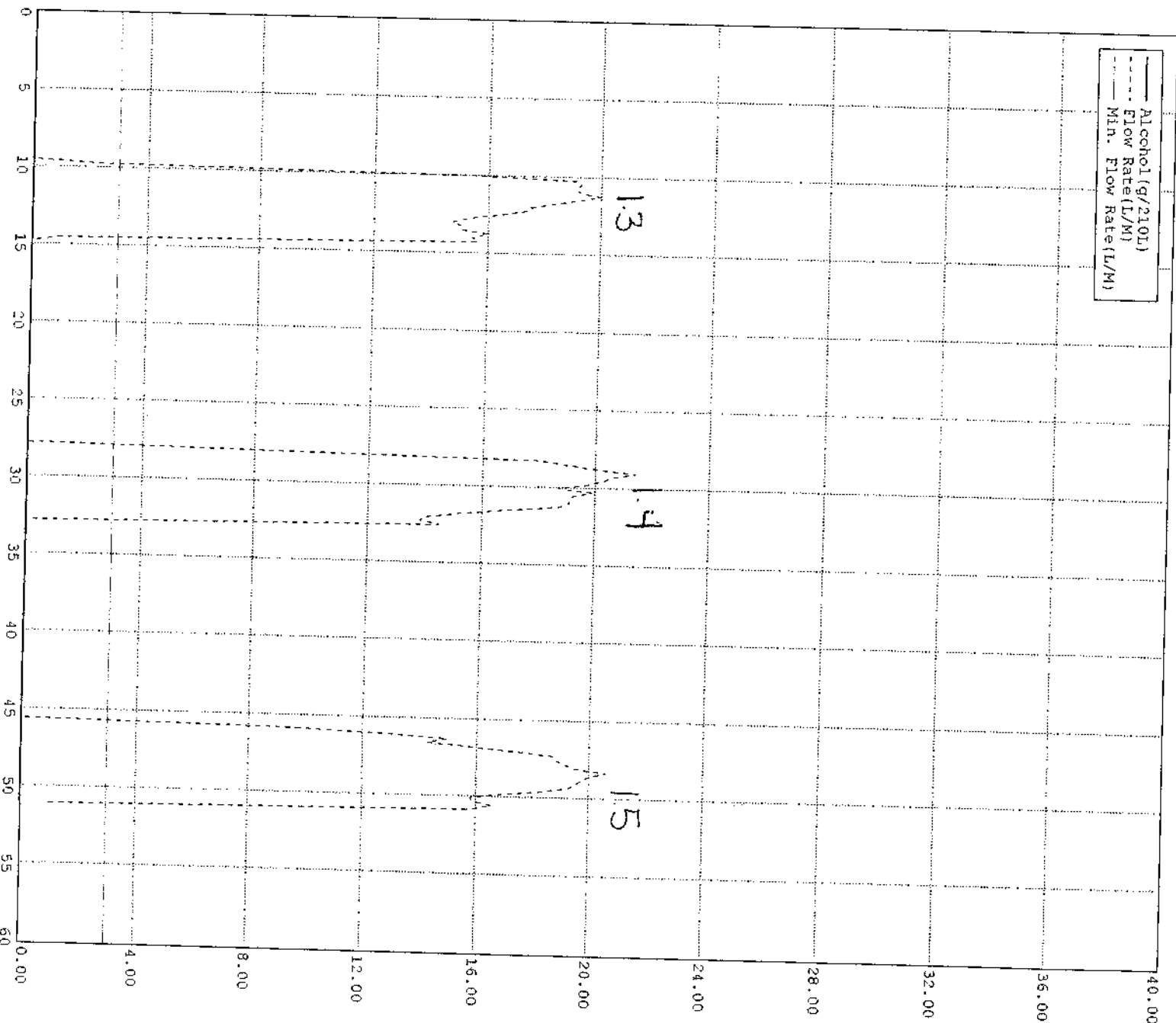
OPERATOR NAME:  
BRANDI M BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AF 29.74: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:08
BLANK TEST	0.000	12:08
INTERNAL STANDARD	VERIFIED	12:08
EXTERNAL STANDARD	0.078	12:08
BLANK TEST	0.000	12:09
SUBJECT SAMPLE (Vol=1.50L)	0.000	12:10
BLANK TEST	0.000	12:11
EXTERNAL STANDARD	0.078	12:11
BLANK TEST	0.000	12:12

*BM*



LINEARITY CHECK

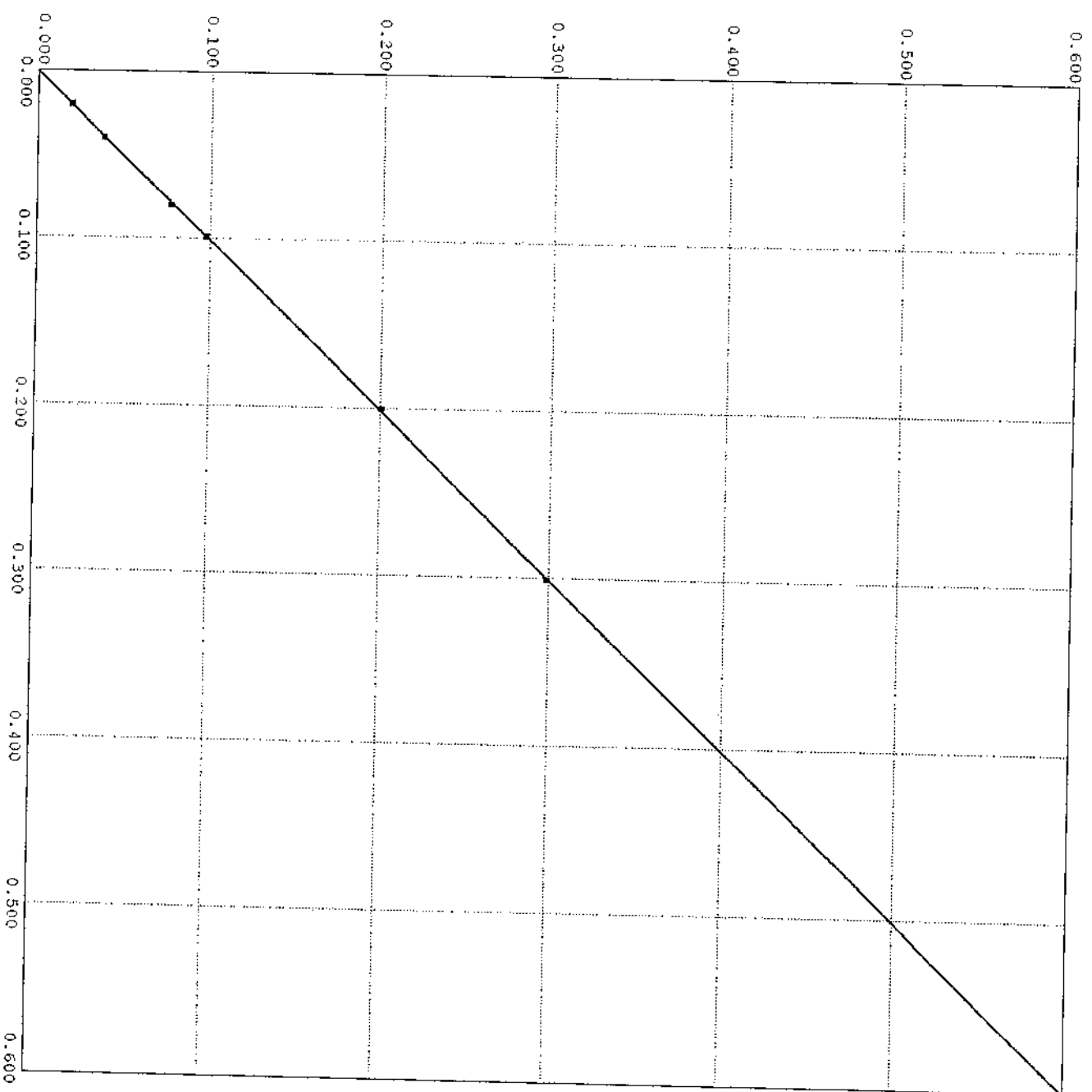
Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/24/2015  
Time: 12:33:52

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.040	0.0394	0.0005
0.080	0.0784	0.0005
0.099	0.0988	0.0004
0.200	0.2012	0.0004
0.300	0.2992	0.0004

SLOPE = 1.000943  
R<sup>2</sup> = 0.999922



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100363

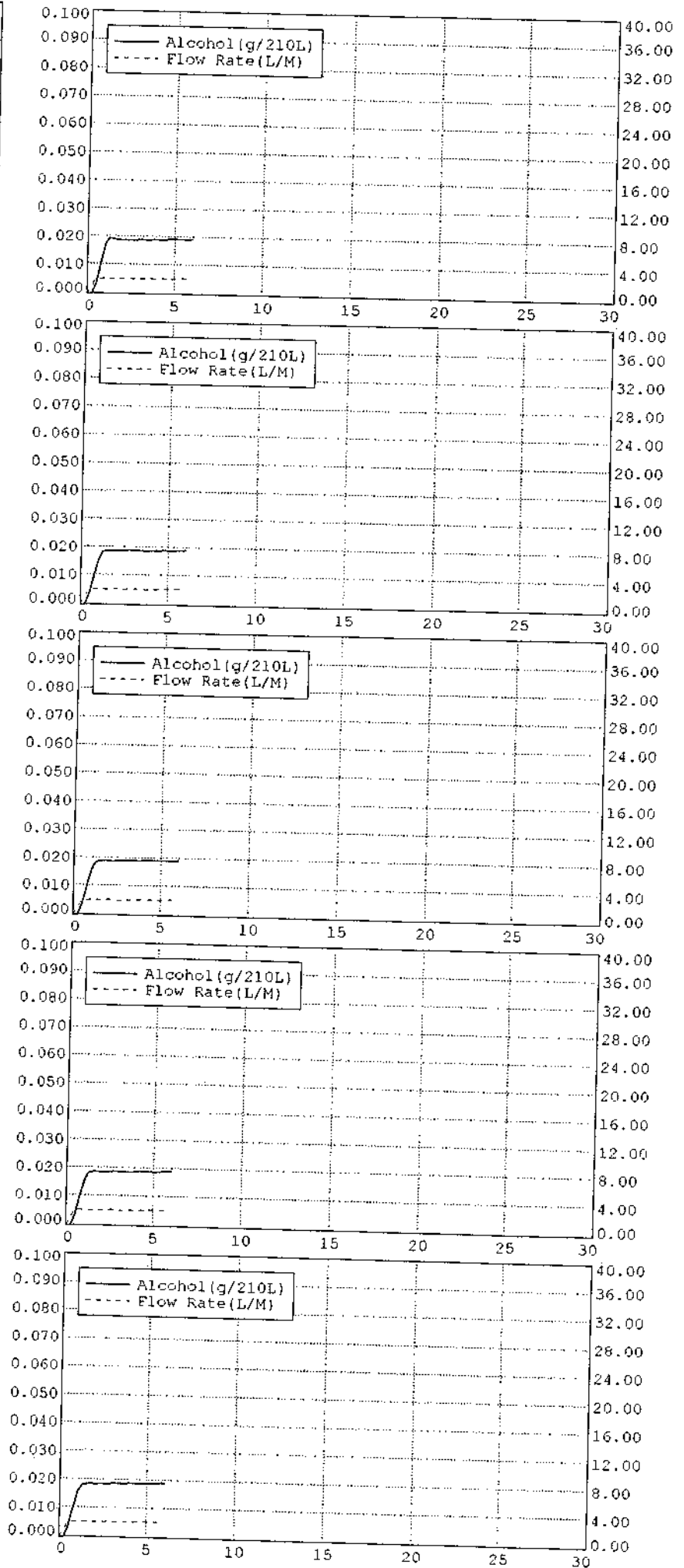
Date: 11/24/2015  
 Time: 12:33:53

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.74: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 803 psi

BLANK TEST	0.000	12:35
INTERNAL STANDARD	VERIFIED	12:35
EXTERNAL STANDARD	0.020	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.020	12:37
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.021	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.020	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.020	12:40
BLANK TEST	0.000	12:41

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100363

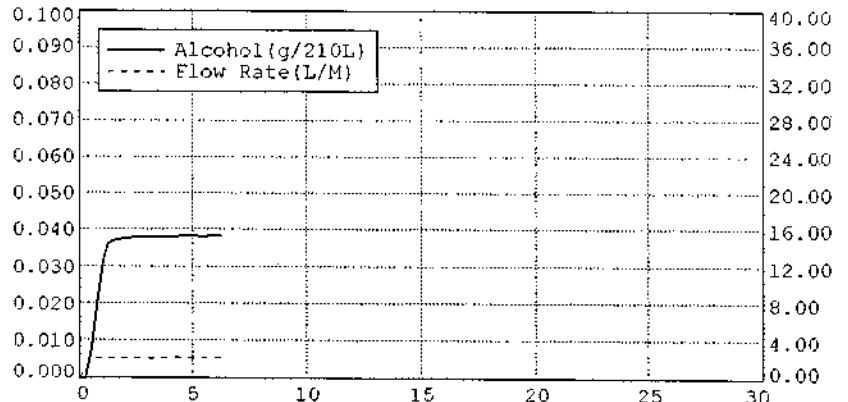
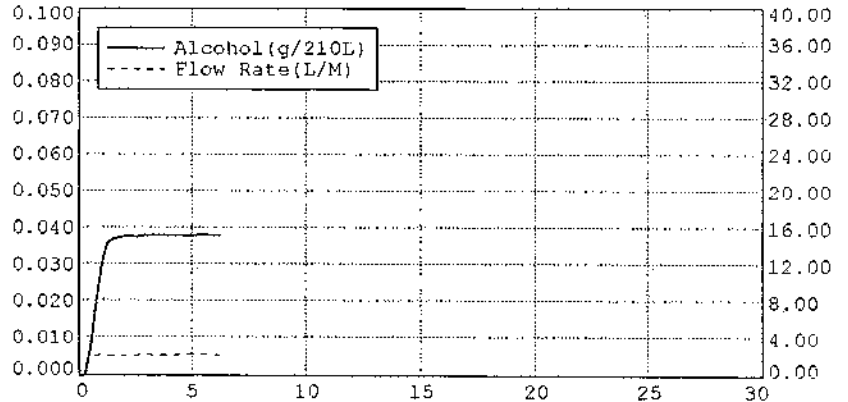
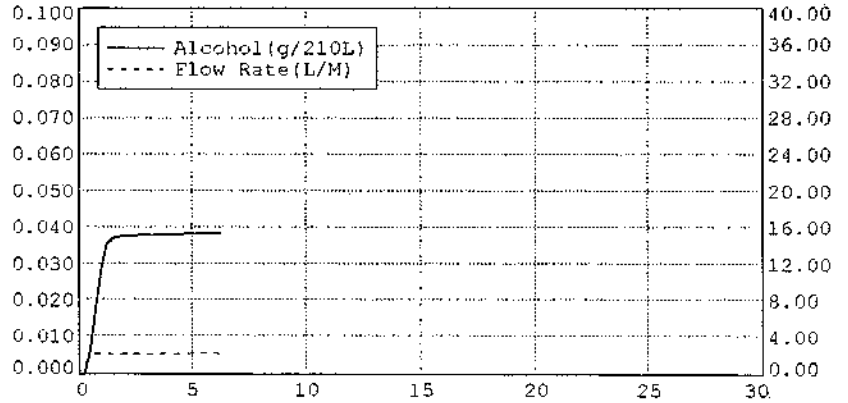
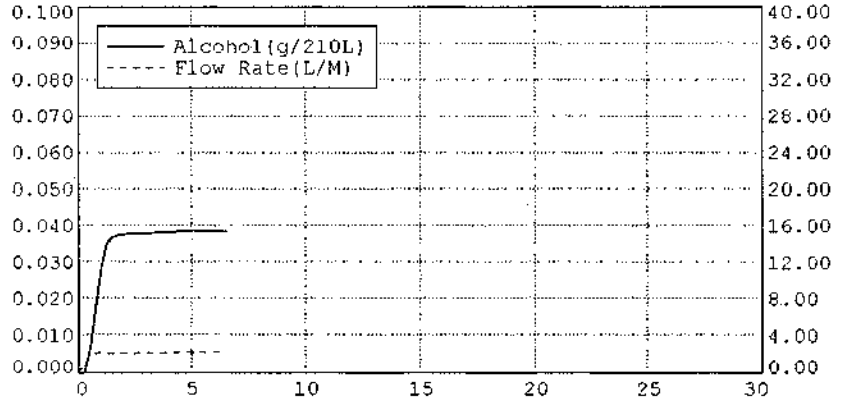
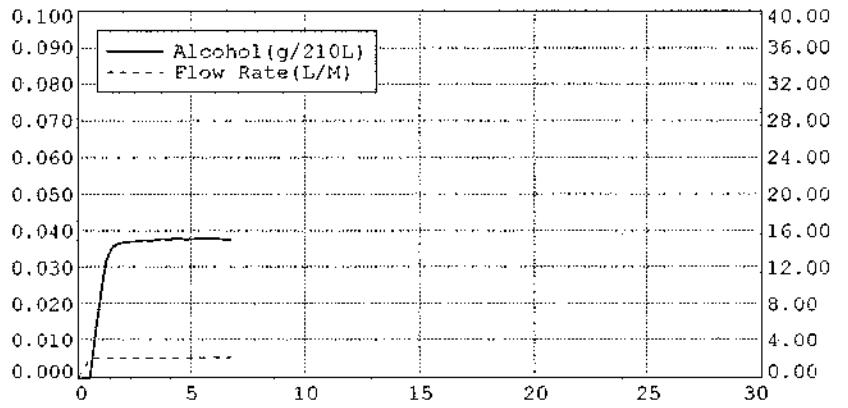
Date: 11/24/2015  
 Time: 12:42:59

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.73: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 845 psi

BLANK TEST	0.000	12:44
INTERNAL STANDARD	VERIFIED	12:44
EXTERNAL STANDARD	0.039	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.040	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.039	12:47
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.039	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.040	12:49
BLANK TEST	0.000	12:50

Average = 0.0394  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100363

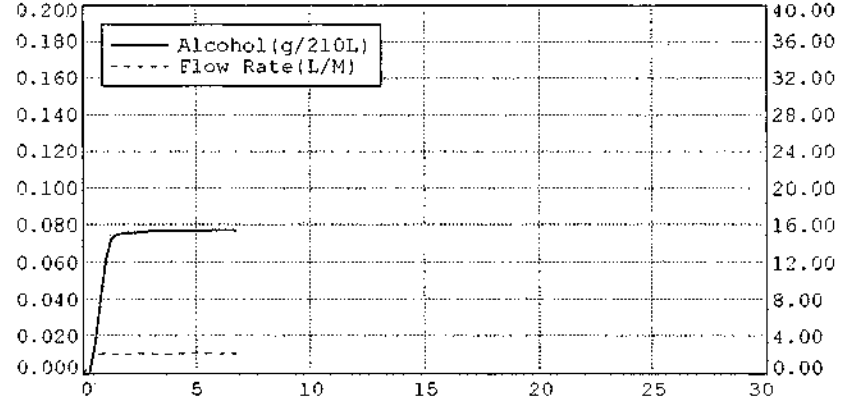
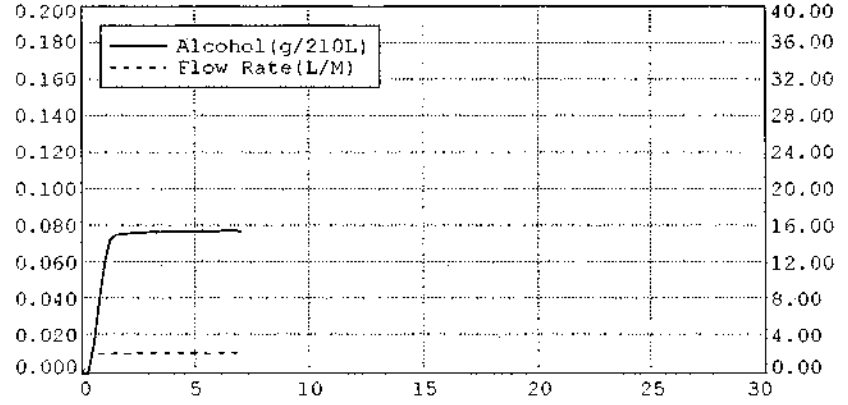
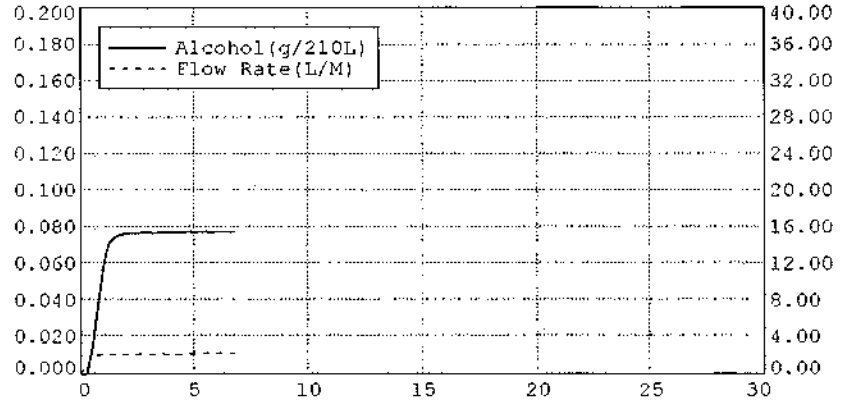
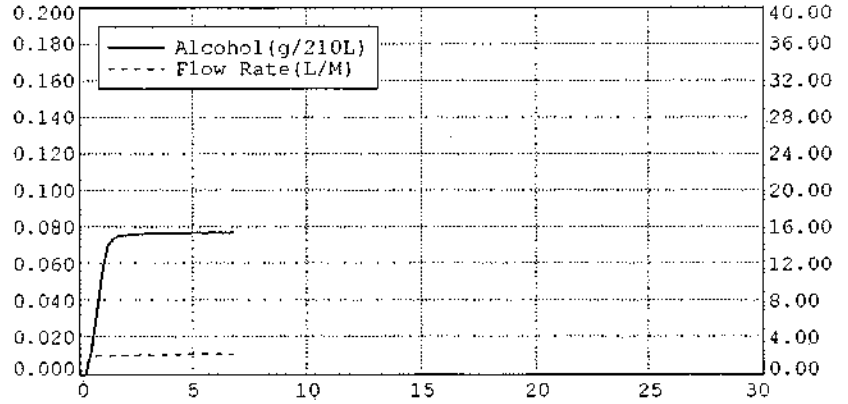
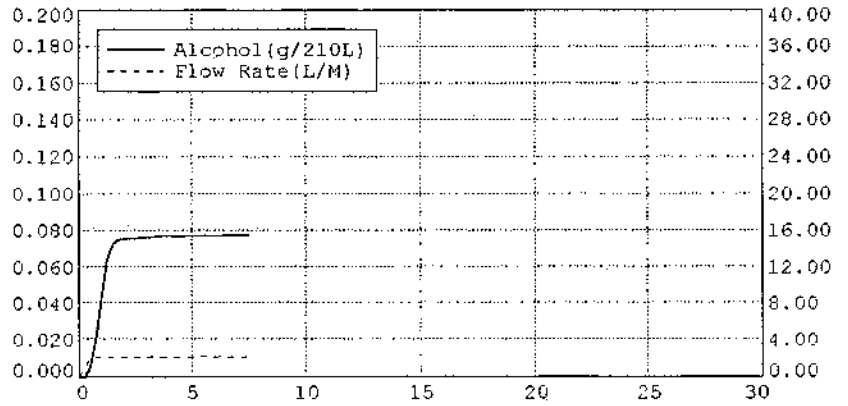
Date: 11/24/2015  
 Time: 12:53:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.73: 0.080  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 821 psi

BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
EXTERNAL STANDARD	0.079	12:54
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.078	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.078	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.078	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.079	12:58
BLANK TEST	0.000	12:59

Average = 0.0784  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100363

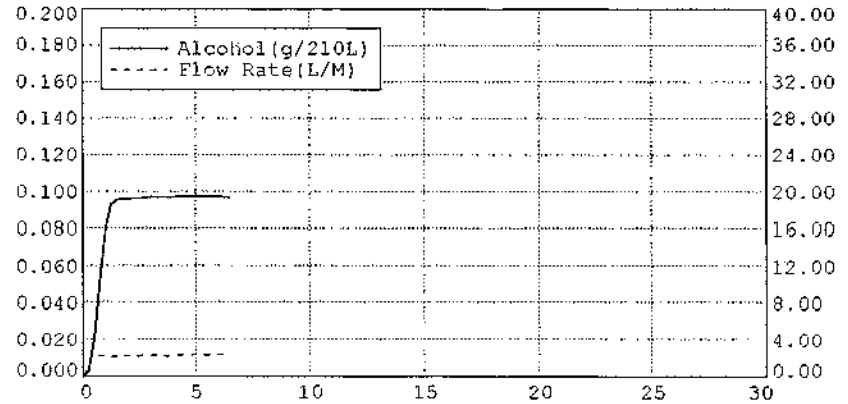
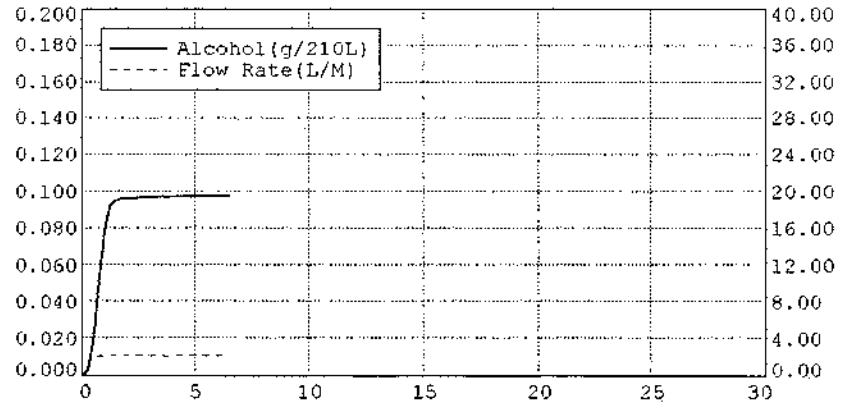
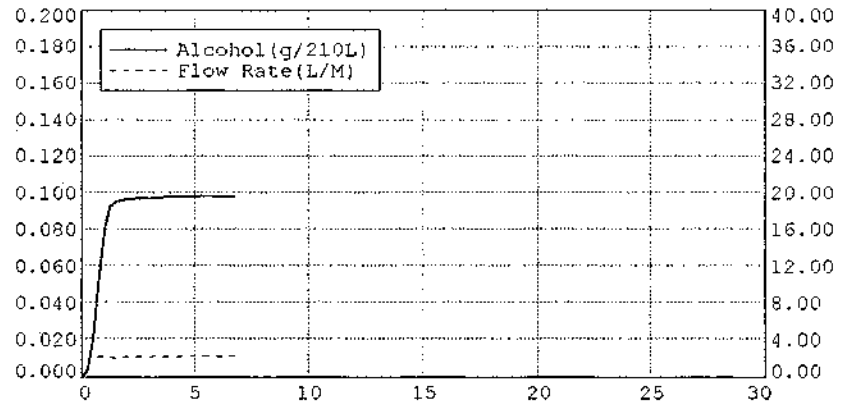
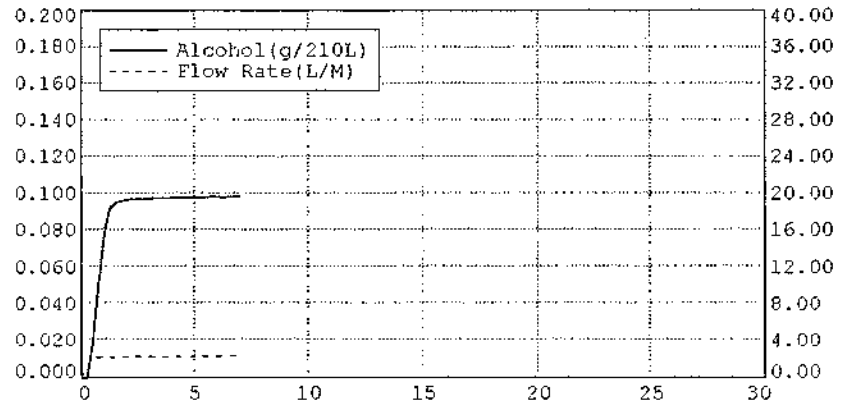
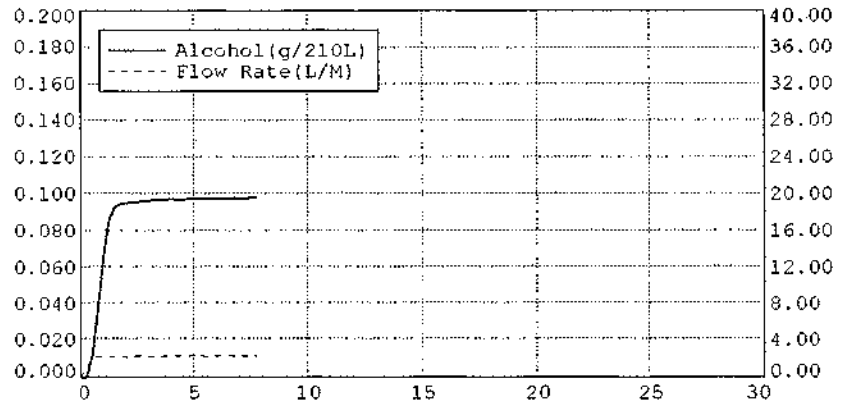
Date: 11/24/2015  
 Time: 13:02:38

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.73: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1078 psi

BLANK TEST	0.000	13:04
INTERNAL STANDARD	VERIFIED	13:04
EXTERNAL STANDARD	0.099	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.099	13:05
BLANK TEST	0.000	13:06
EXTERNAL STANDARD	0.099	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.099	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.098	13:08
BLANK TEST	0.000	13:09

Average = 0.0988  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

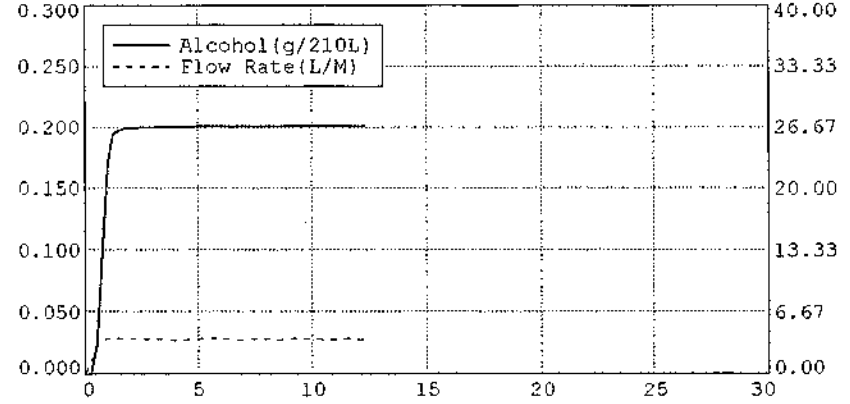
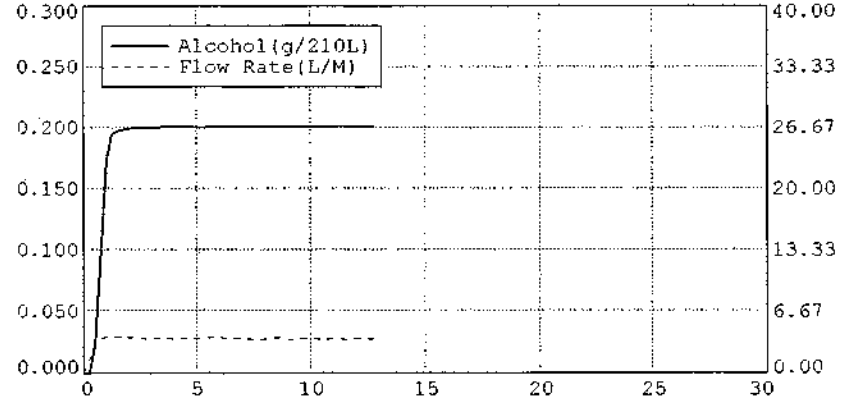
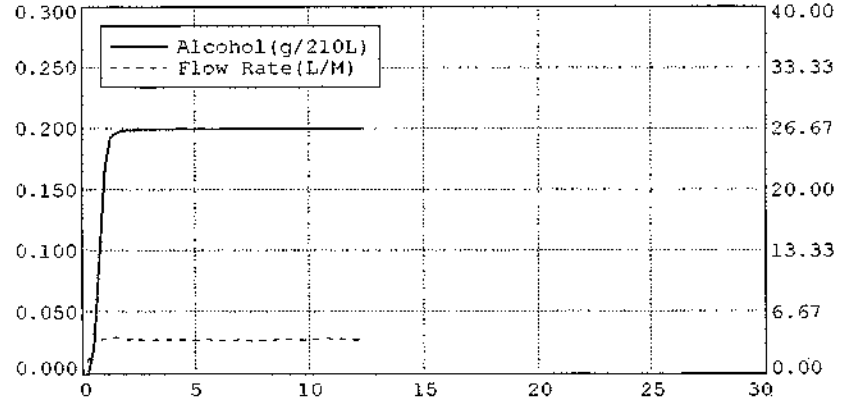
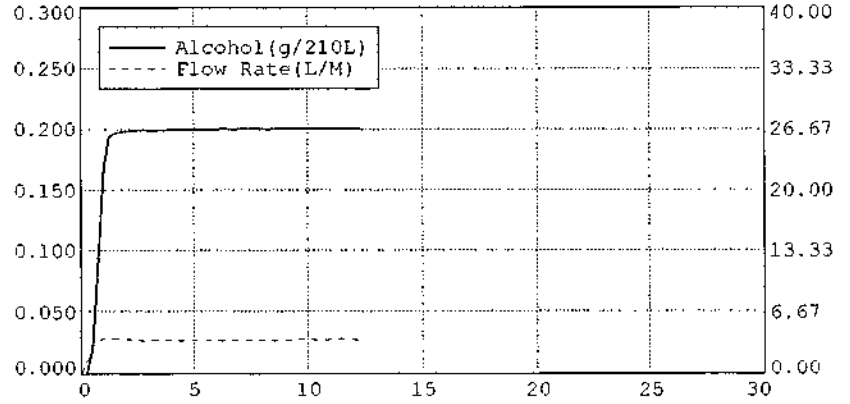
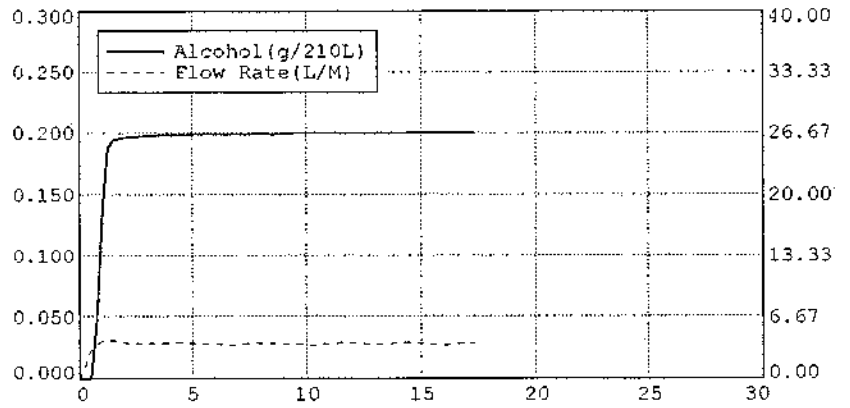
Alaska Department of Public Safety  
 DATAMASTER dmt: 100363

Date: 11/24/2015  
 Time: 13:11:27

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

BLANK TEST	0.000	13:12
INTERNAL STANDARD	VERIFIED	13:12
EXTERNAL STANDARD	0.201	13:13
BLANK TEST	0.000	13:14
EXTERNAL STANDARD	0.201	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.201	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.201	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.202	13:18
BLANK TEST	0.000	13:19

Average = 0.2012  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100363

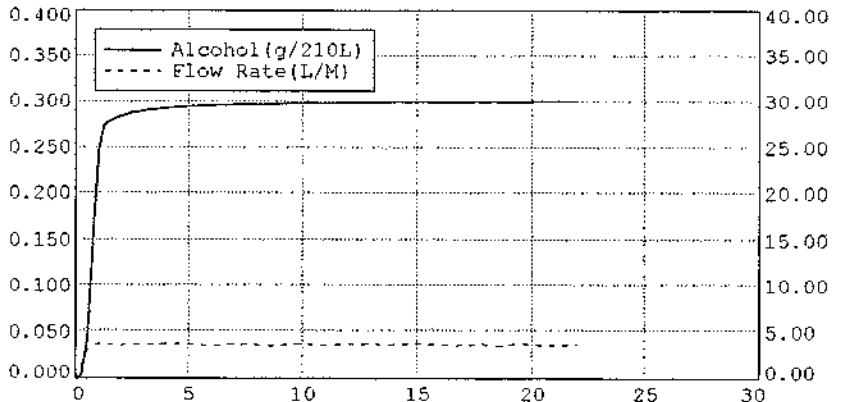
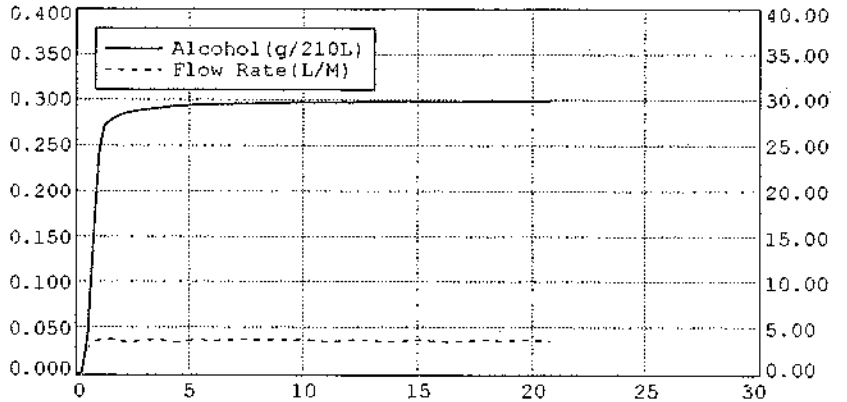
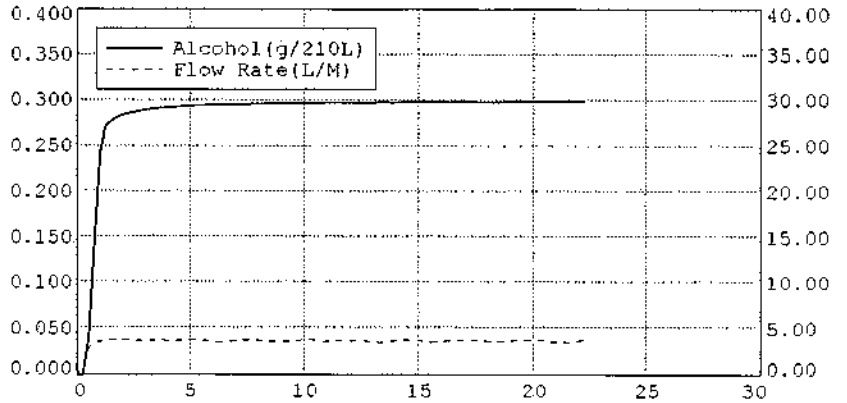
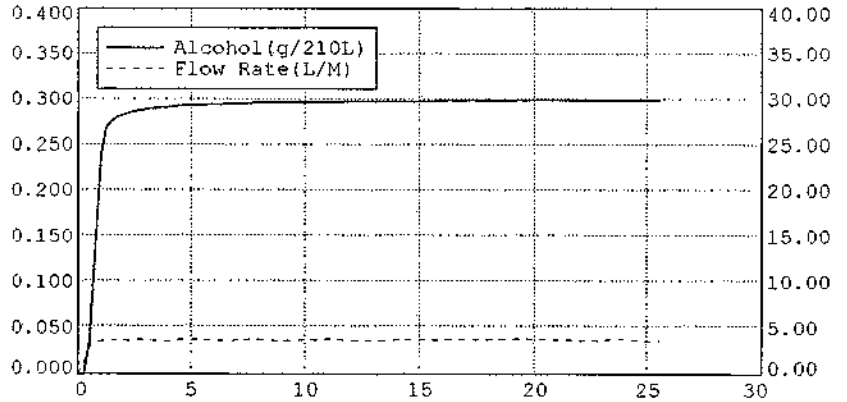
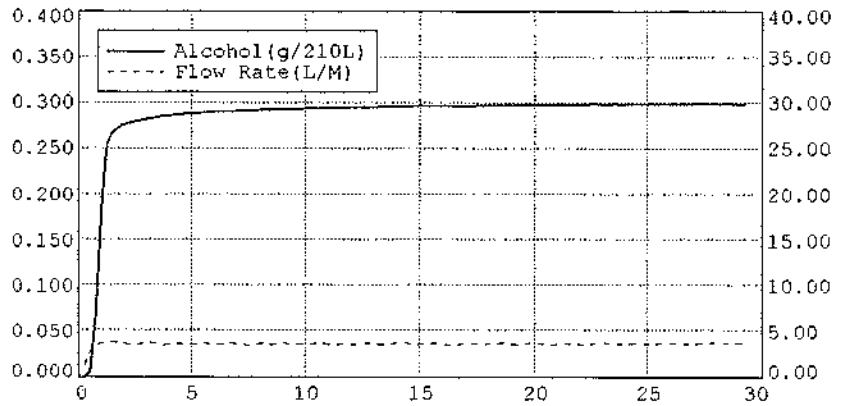
Date: 11/24/2015  
 Time: 13:34:31

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:35
INTERNAL STANDARD	VERIFIED	13:35
EXTERNAL STANDARD	0.299	13:36
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.299	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.299	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.299	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.300	13:42
BLANK TEST	0.000	13:42

Average = 0.2992  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:08:19

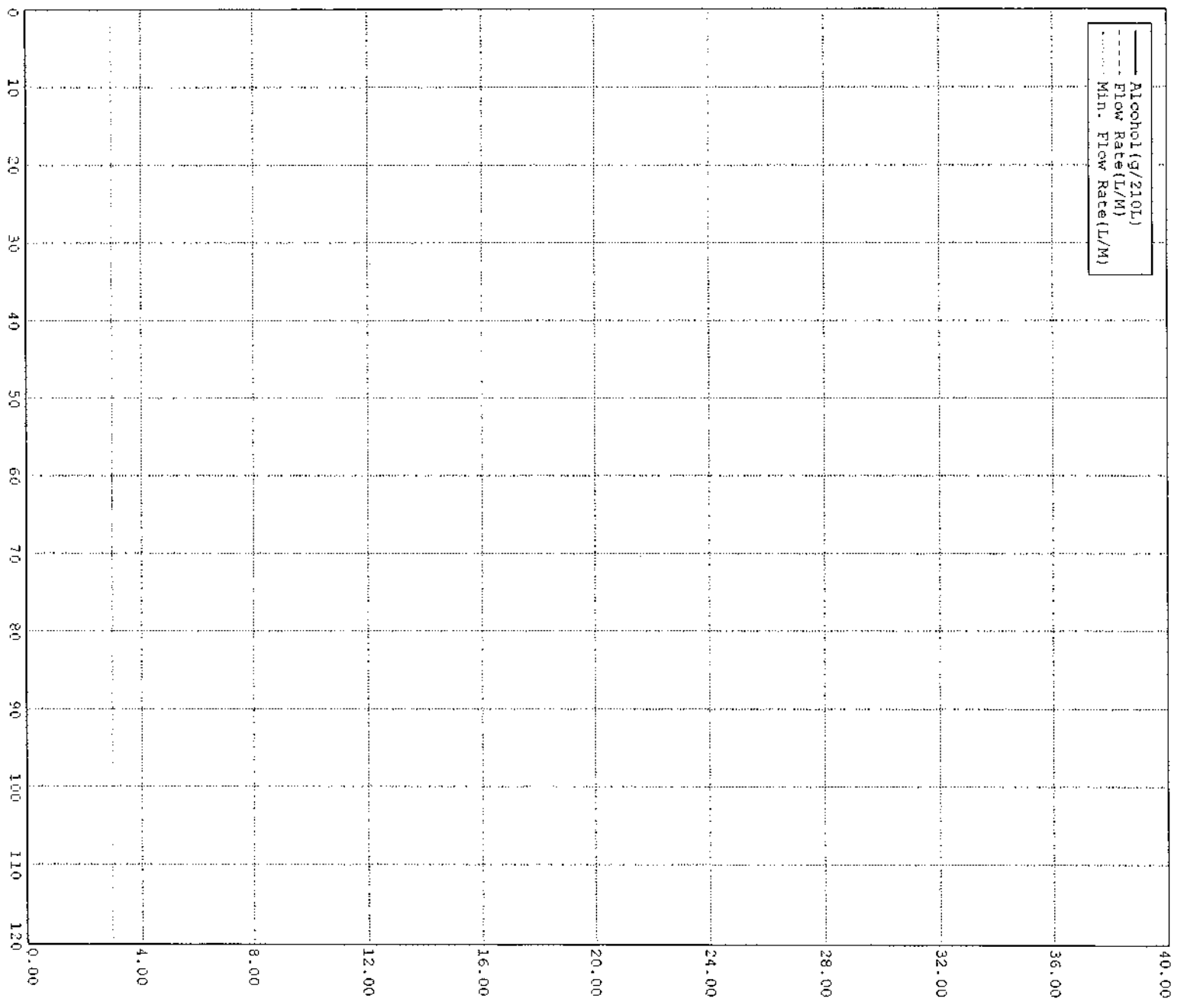
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:09
BLANK TEST	0.000	09:09
INTERNAL STANDARD	VERIFIED	09:09
EXTERNAL STANDARD	0.078	09:09
BLANK TEST	0.000	09:10
SUBJECT SAMPLE	INCOMPLETE	09:12



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:15:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

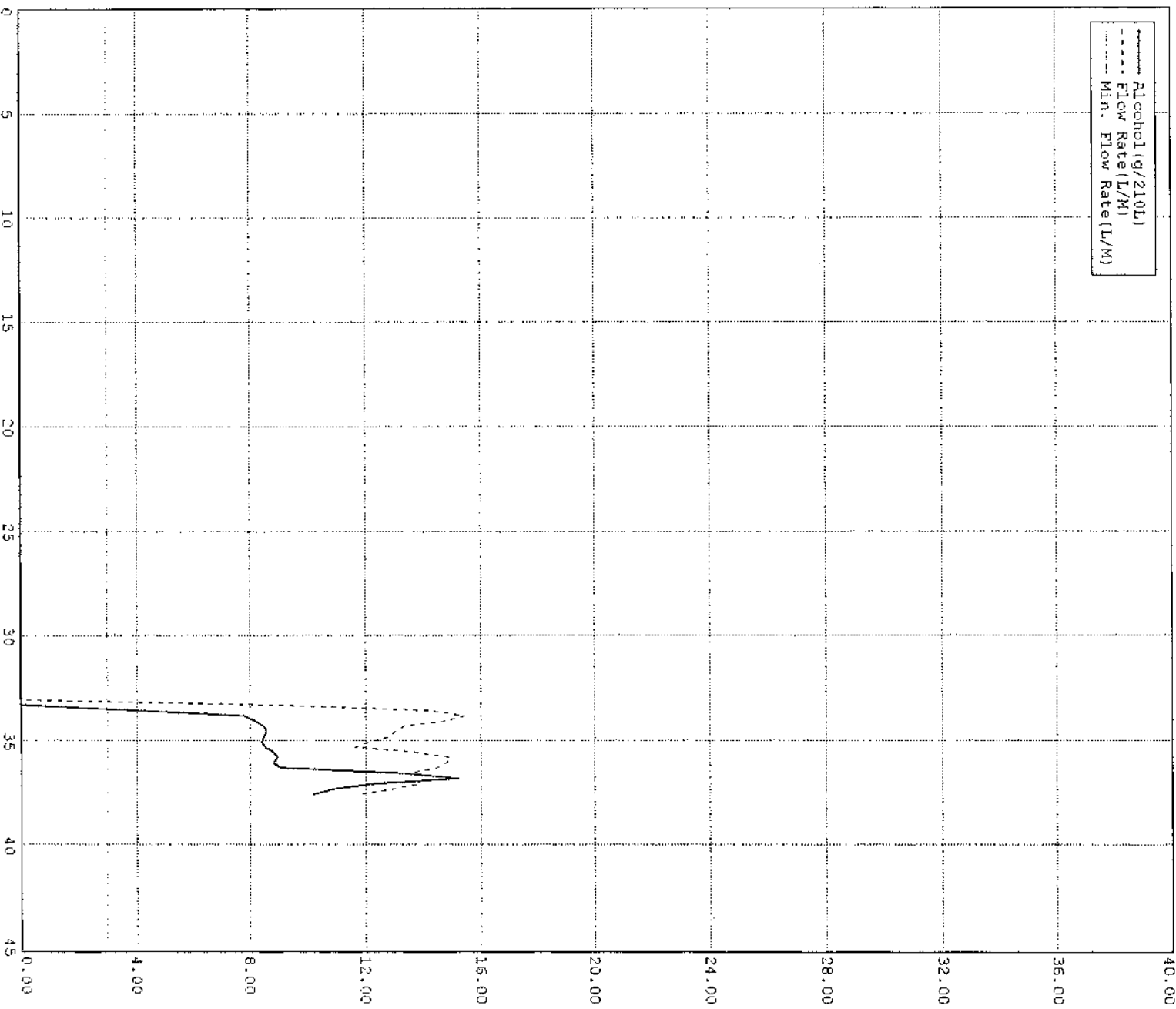
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INVALID KNOWN MOUTH ALCOHOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:16
BLANK TEST	0.000	09:16
INTERNAL STANDARD	VERIFIED	09:16
EXTERNAL STANDARD	0.078	09:16
BLANK TEST	0.000	09:17
SUBJECT SAMPLE	INVALID	09:18

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:34:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

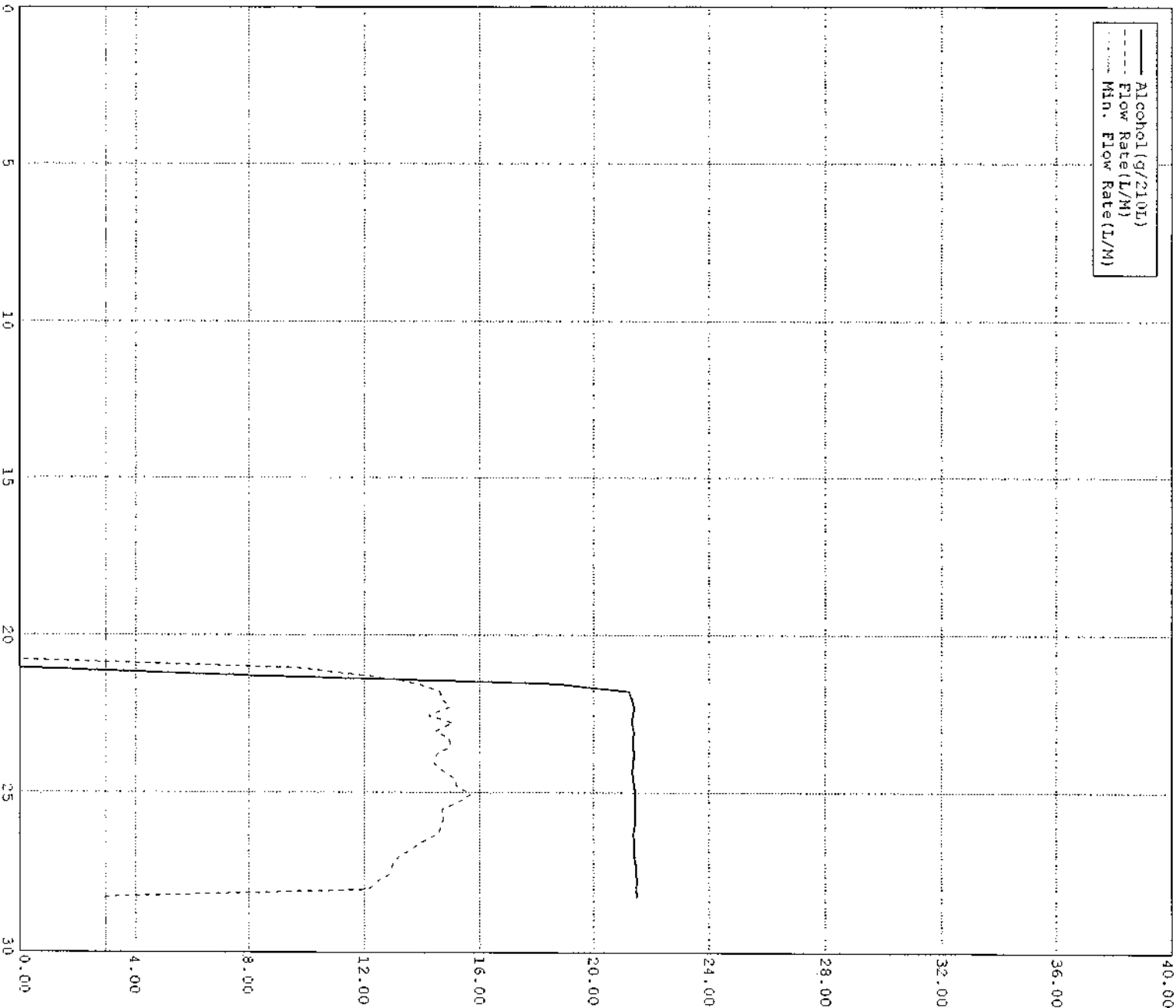
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:35
BLANK TEST	0.000	09:36
INTERNAL STANDARD	VERIFIED	09:36
Xq = 0.098 (0.09%)	0.078	09:36
EXTERNAL STANDARD	X[1] = 0.0782 (-0.0002)	(0.0013)
BLANK TEST	0.000	09:37
SUBJECT SAMPLE	XXX	09:37
X[1] = 0.1090 (-0.0183)	(-0.0004)	

Interference Detected

Filter 2 Avg: -0.0003  
Filter 3 Avg: 0.0011  
BMB 11/25/15

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:39:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

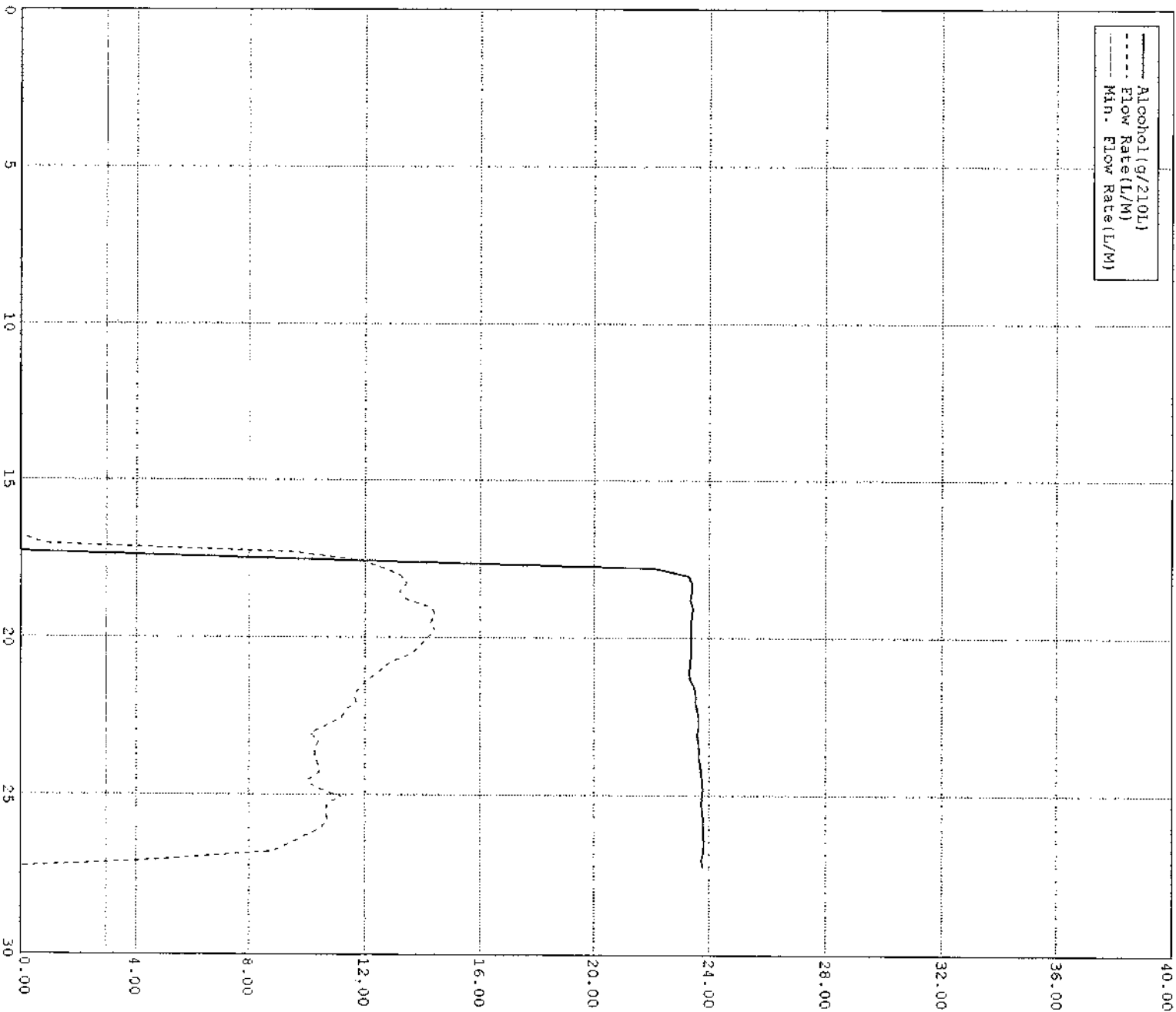
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
BLANK TEST PASSED 09:43  
INTERNAL STANDARD VERIFIED 09:43  
Xg = 0.097 (0.18%)  
EXTERNAL STANDARD 0.078 09:43  
X[1] = 0.0784 (0.0000) (0.0010)  
BLANK TEST 0.000 09:44  
SUBJECT SAMPLE XXX 09:45  
X[1] = 0.1193 (-0.0242) (0.0004)

Interference Detected

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:47:37

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

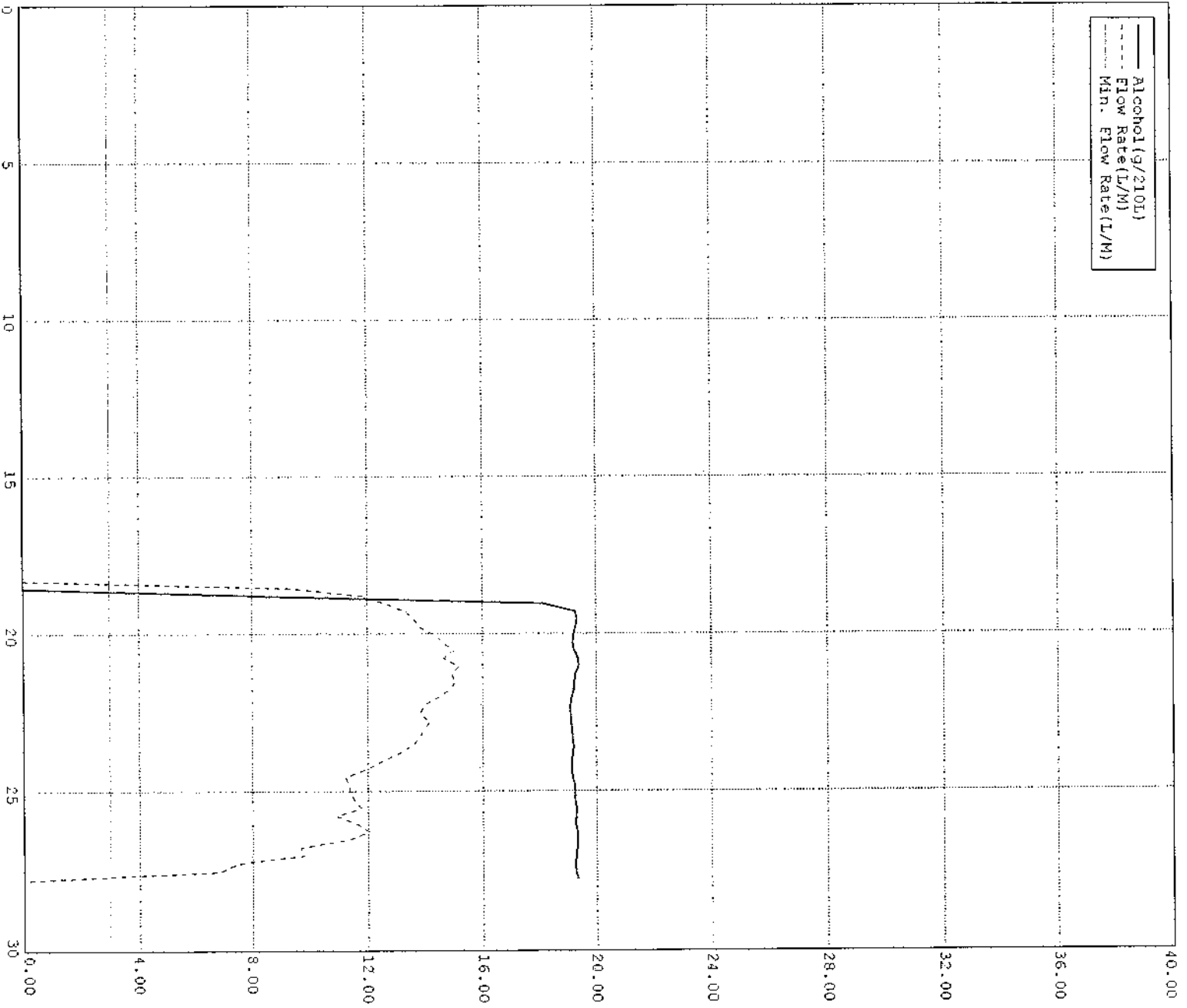
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.58: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	09:49
BLANK TEST	0.000	09:50
INTERNAL STANDARD	VERIFIED	09:50
Xq = 0.097 (0.54%)		
EXTERNAL STANDARD	0.078	09:50
X[1] = 0.0780 (-0.0004)	(0.0013)	
BLANK TEST	0.000	09:51
SUBJECT SAMPLE (Vol=1.95L)	0.097	09:51
X[1] = 0.0977 (0.0001)	(-0.0002)	
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.077	09:53
X[1] = 0.0773 (-0.0004)	(0.0008)	
BLANK TEST	0.000	09:53

*Handwritten signature/initials*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:26:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

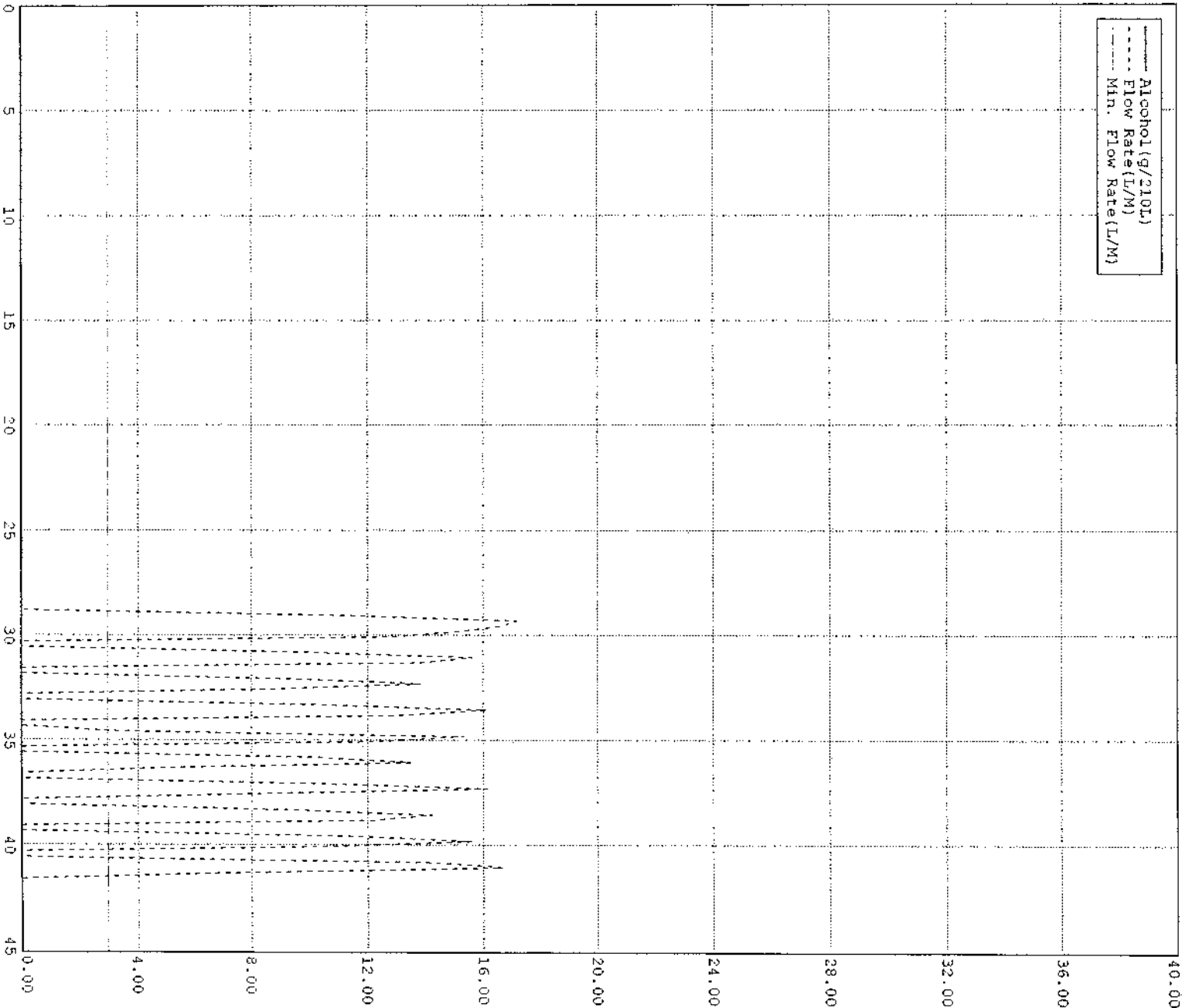
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.60: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:27
BLANK TEST	0.000	09:28
INTERNAL STANDARD	VERIFIED	09:28
EXTERNAL STANDARD	0.078	09:28
BLANK TEST	0.000	09:29
SUBJECT SAMPLE	XXX	09:30

Maximum Attempts Exceeded

*BRMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 09:20:14

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

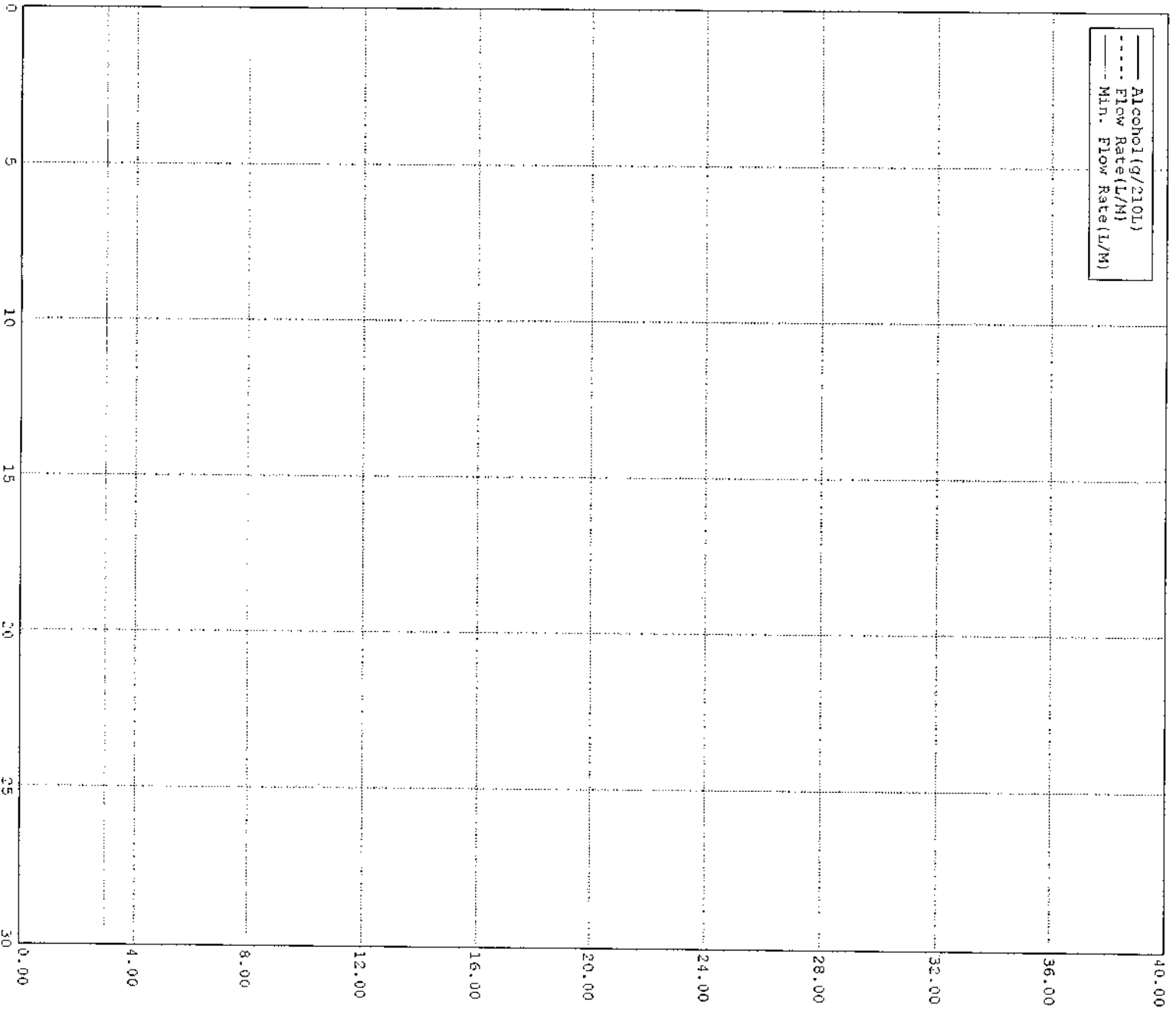
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOI #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
BLANK TEST PASSED 09:21  
INTERNAL STANDARD 0.000 09:21  
EXTERNAL STANDARD VERIFIED 0.077 09:21  
BLANK TEST 0.000 09:22

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100363

Date: 11/25/2015  
Time: 10:11:17

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 29.57: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:12
BLANK TEST	0.000	10:12
INTERNAL STANDARD	VERIFIED	10:12
EXTERNAL STANDARD	0.078	10:12
BLANK TEST	0.000	10:13
SUBJECT SAMPLE (Vol=1.76L)	0.000	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.078	10:15
BLANK TEST	0.000	10:16

*BMB*

