

# 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 100676 Analyst Brandi Barnett Start Date 9/30/15

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 2/5/17
- 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 1/20/15

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 14110 <sup>9/30/15</sup> Level 0.100 Exp 5/11/16
  - 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 SD1176 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 10/1/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100676  
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Date: 09/30/2015  
Time: 08:55:16

VERSIONS  
DMT: 3.01  
PIC: 3.03  
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 = 1.59 V PASSED  
(0.96 V - 2.24 V)  
Cooler Voltage = 1.67 V PASSED  
(0.94 V - 2.20 V)  
Bias Voltage = 80 V PASSED  
(47 V - 111 V)  
Chopper Freq = 540 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.5 in

PUMP INFO

Flow Rate = 4.126 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 = 0.088 0.20% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100676  
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Date: 09/30/2015

Time: 9:01 AM

Temperatures (°C)

Sample Cell: 49.0°C

Breath Tube: 48.1°C

Current Barometer 29.4 in

Volume (Ltr) 1.55

Settings

Lamp: 1.62 V

Bias: 80 V

Cooler: 1.67 V

Chopper: 539 Hz

Voltages (V)

Flow: 1.06 V

Detector: -0.066 V

CALIBRATION FACTORS

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Alaska Department of Public Safety  
DATAMASTER dmt: 100676  
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Date: 10/26/2011  
Time: 07:46:55

Ca = 0.1000  
CAL = 1.005681    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0043    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Xq = 0.0882    0.0500 <= Xq < 0.2000  
a21 = 1.239164    1.050 <= a21 < 1.300  
a31 = 0.566145    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100676

Date: 09/30/2015  
Time: 09:02:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

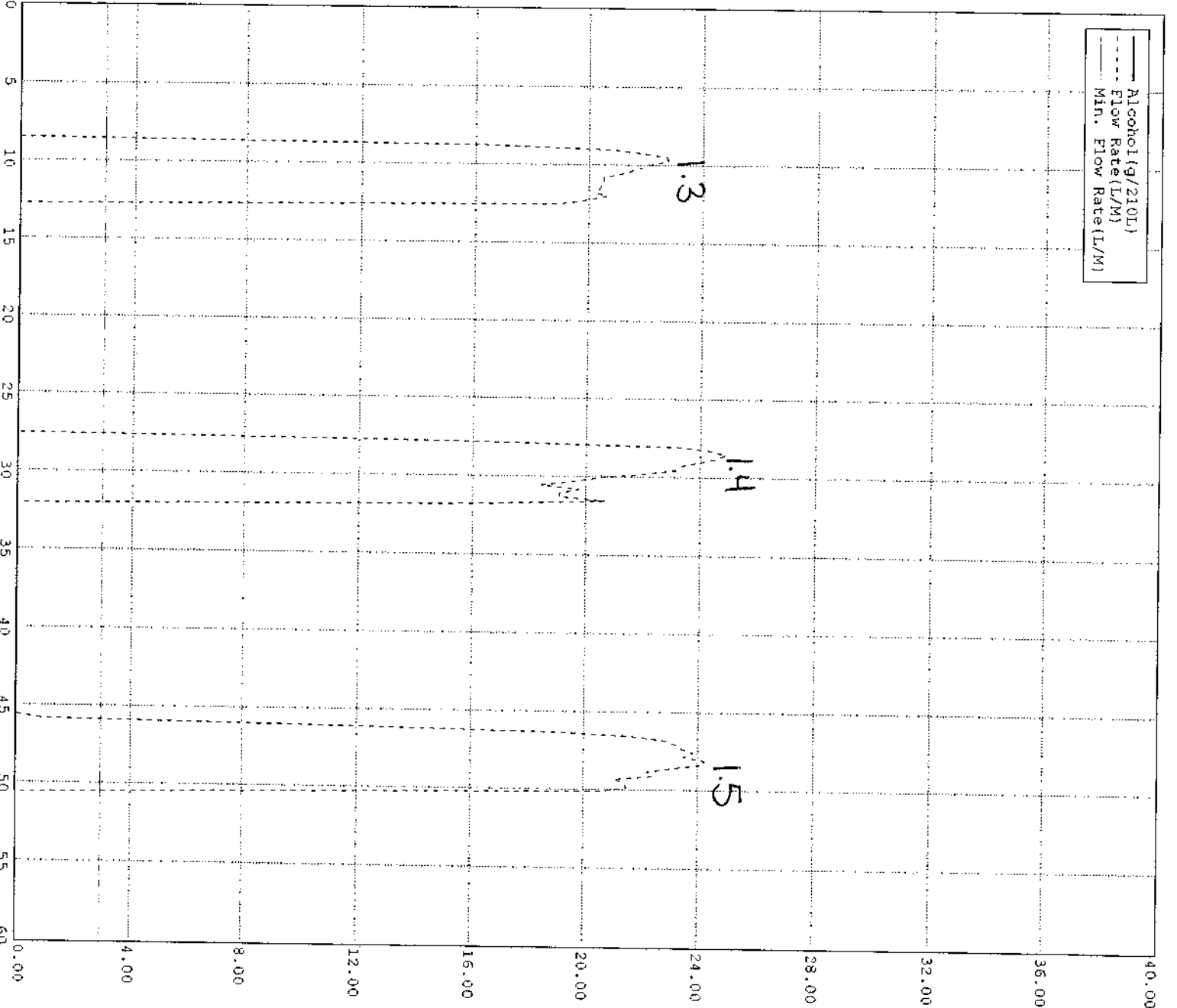
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.41: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	09:03
BLANK TEST	0.000	09:03
INTERNAL STANDARD	VERIFIED	09:03
EXTERNAL STANDARD	0.077	09:04
BLANK TEST	0.000	09:05
SUBJECT SAMPLE (Vol=1.58L)	0.000	09:05
BLANK TEST	0.000	09:06
EXTERNAL STANDARD	0.077	09:07
BLANK TEST	0.000	09:07

*BBMB*



LINEARITY CHECK

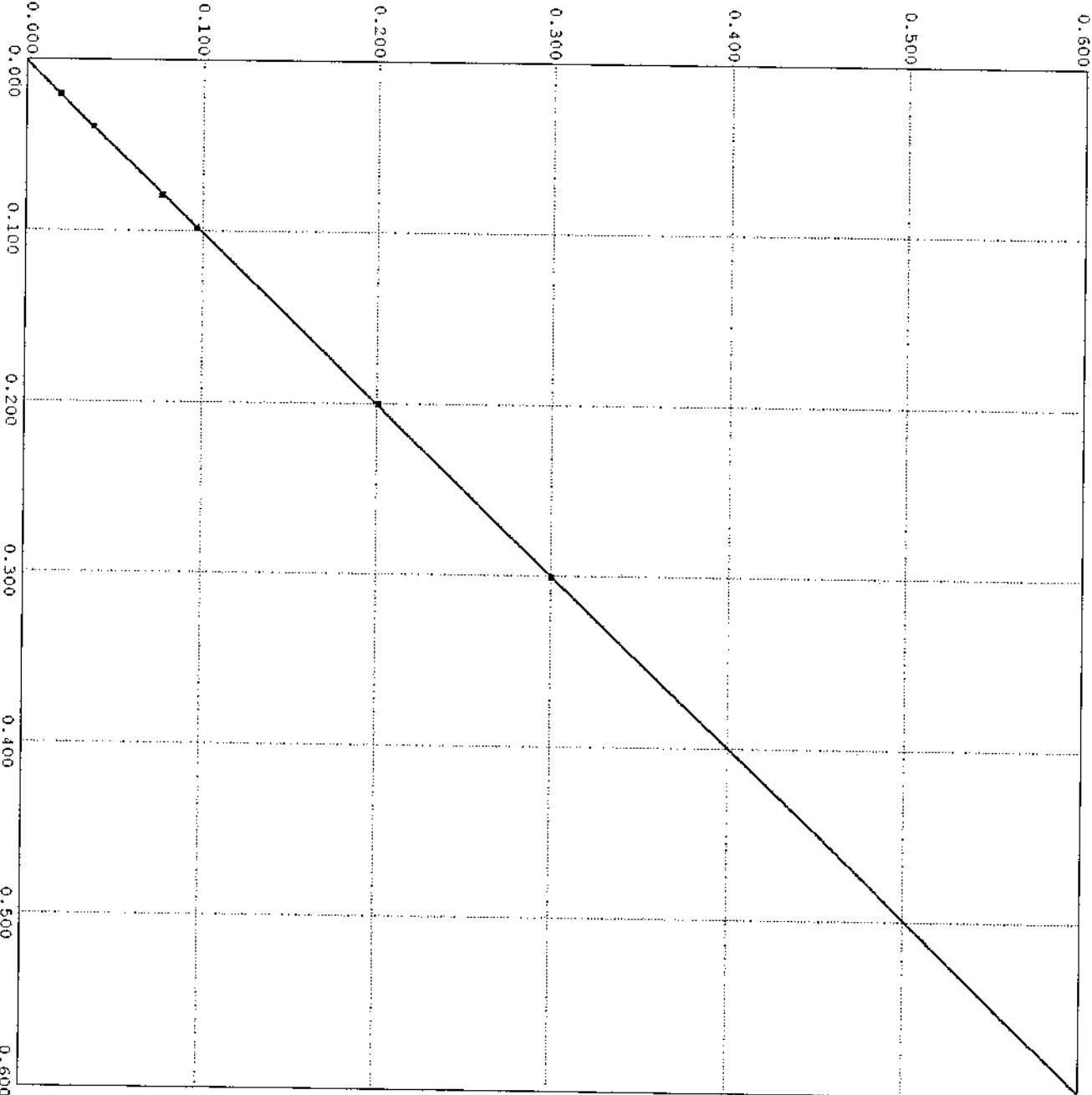
Alaska Department of Public Safety  
DATA MASTER dmt: 100676

Date: 09/30/2015  
Time: 09:41:42

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0202	0.0004
0.039	0.0390	0.0000
0.079	0.0778	0.0004
0.098	0.0974	0.0005
0.200	0.2018	0.0004
0.300	0.3010	0.0000

SLOPE = 1.006318  
R<sup>2</sup> = 0.999939



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100676

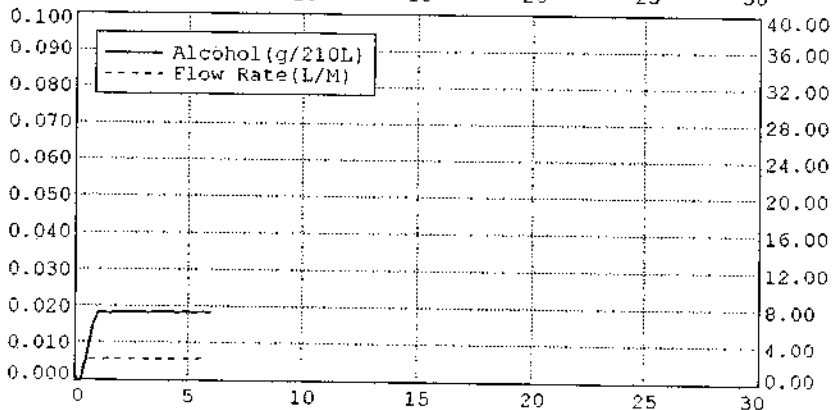
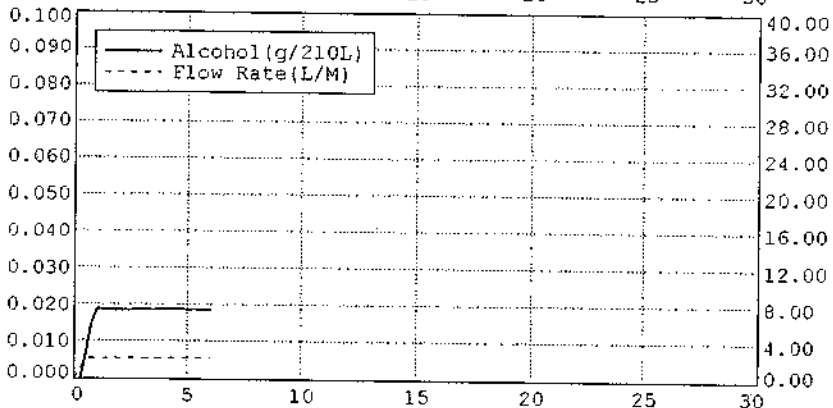
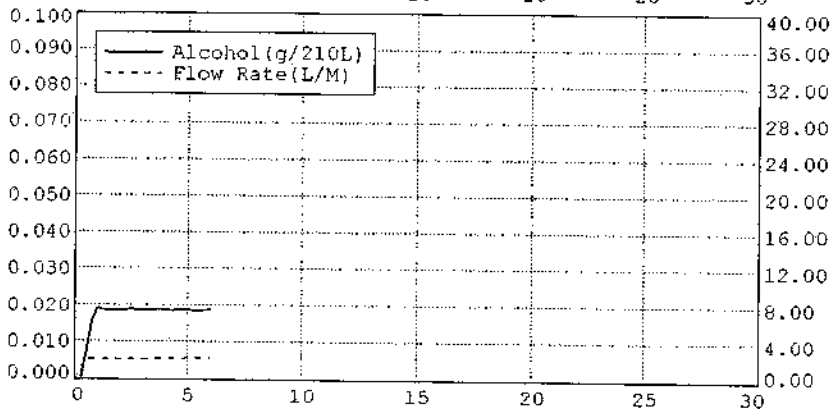
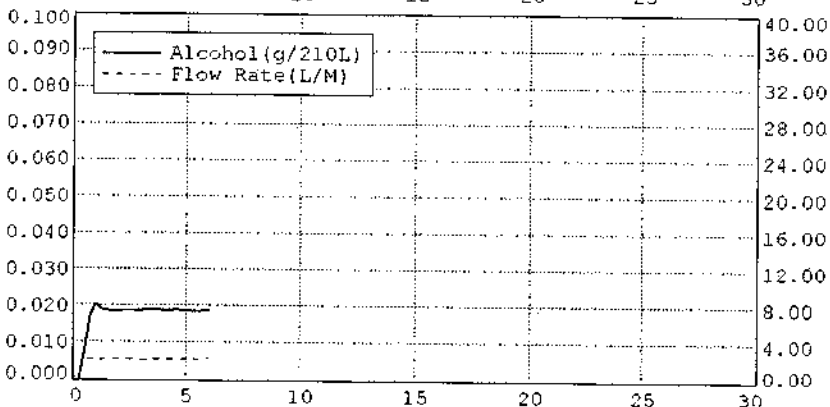
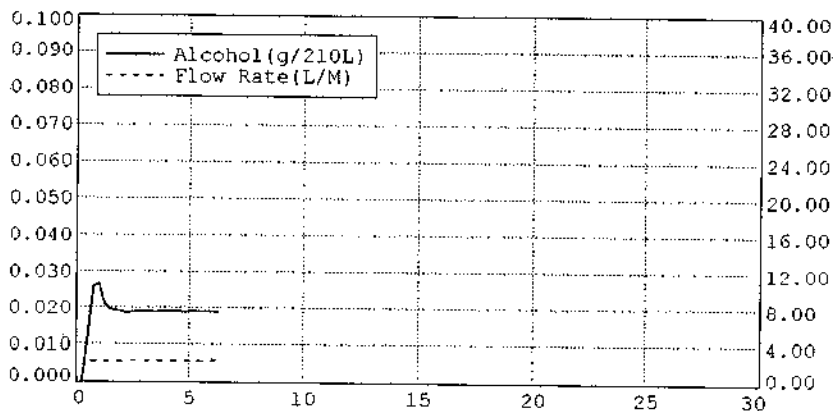
Date: 09/30/2015  
 Time: 09:41:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.44: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 298 psi

BLANK TEST	0.000	09:42
INTERNAL STANDARD	VERIFIED	09:42
EXTERNAL STANDARD	0.021	09:43
BLANK TEST	0.000	09:44
EXTERNAL STANDARD	0.020	09:44
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.020	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.020	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.020	09:47
BLANK TEST	0.000	09:48

Average = 0.0202  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100676

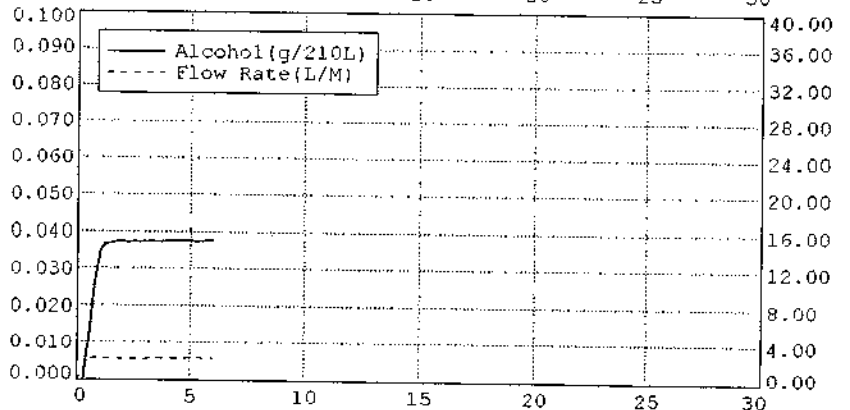
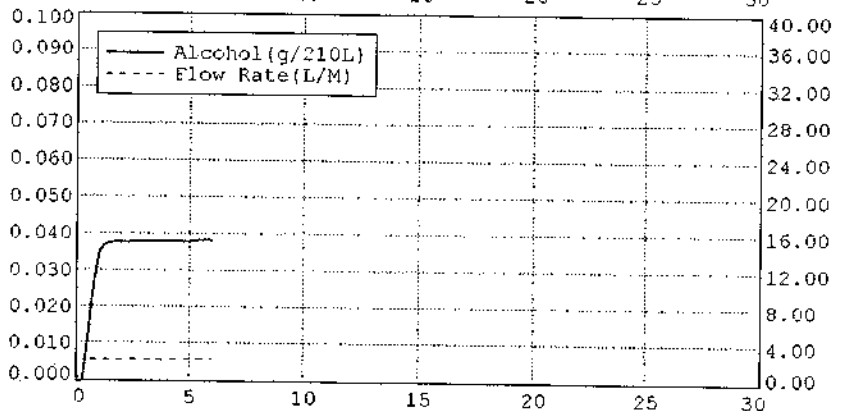
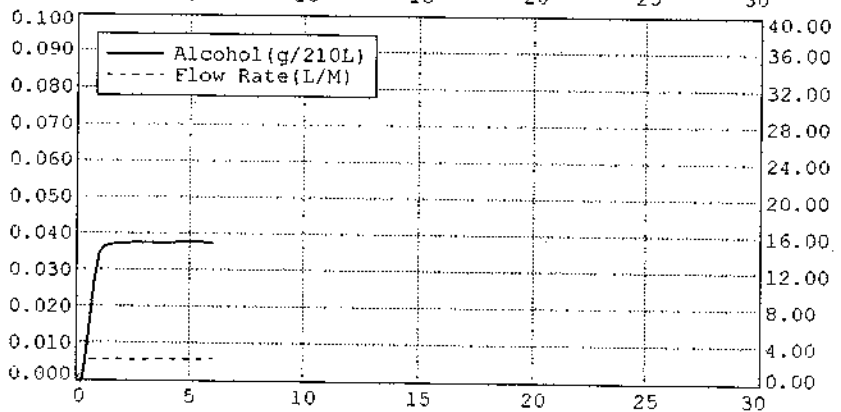
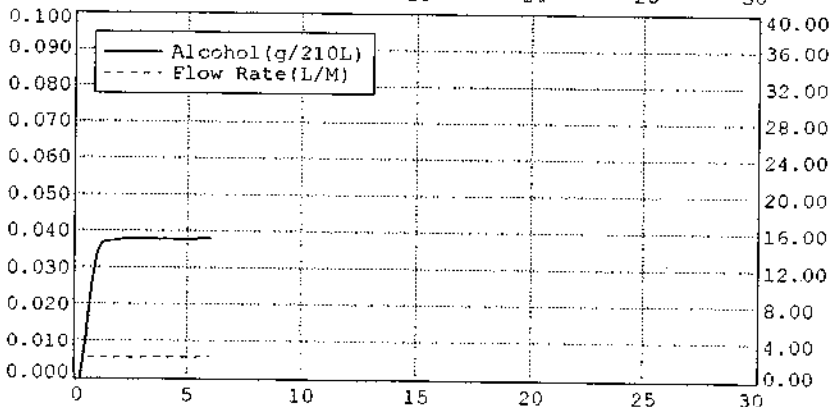
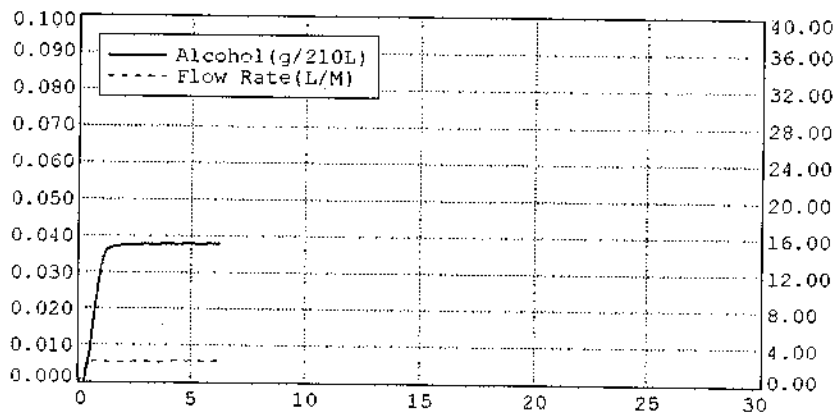
Date: 09/30/2015  
 Time: 09:49:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.44: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 393 psi

BLANK TEST	0.000	09:50
INTERNAL STANDARD	VERIFIED	09:50
EXTERNAL STANDARD	0.039	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.039	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.039	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.039	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.039	09:55
BLANK TEST	0.000	09:56

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100676

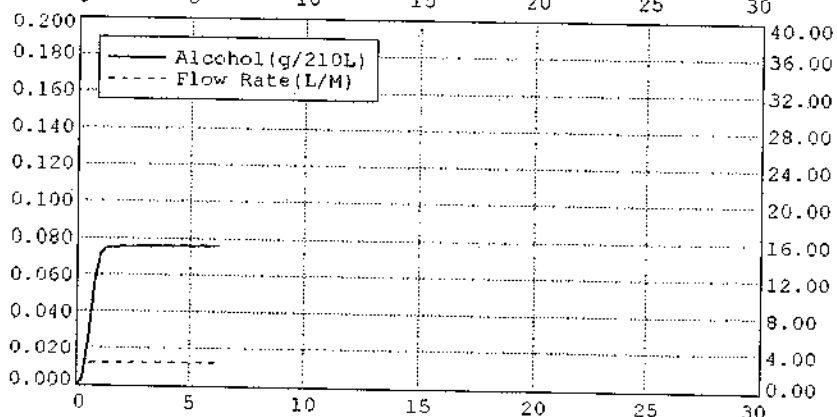
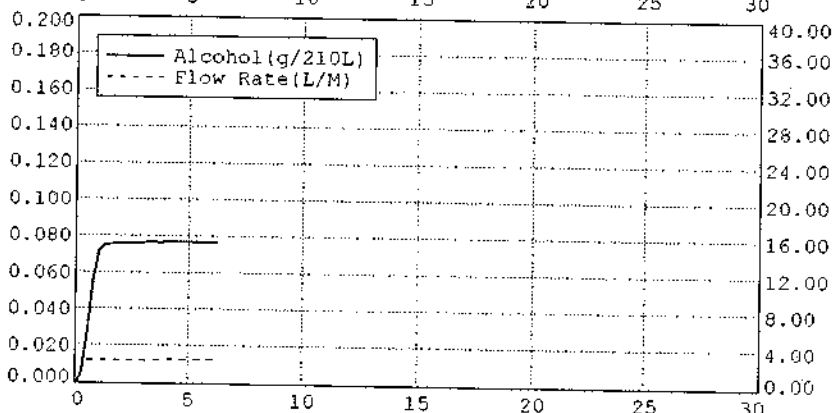
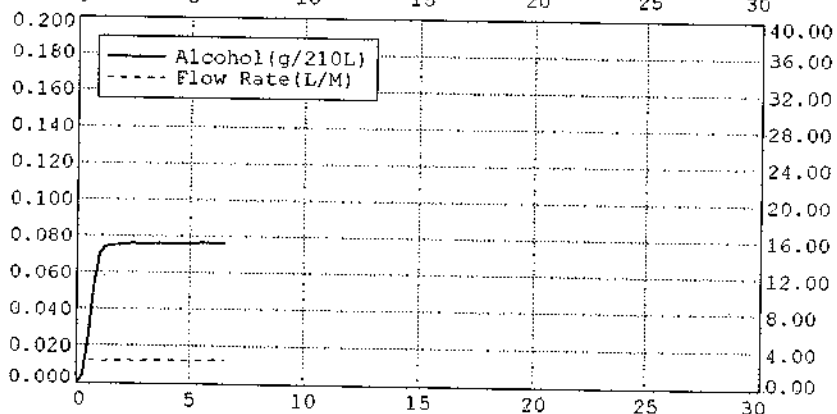
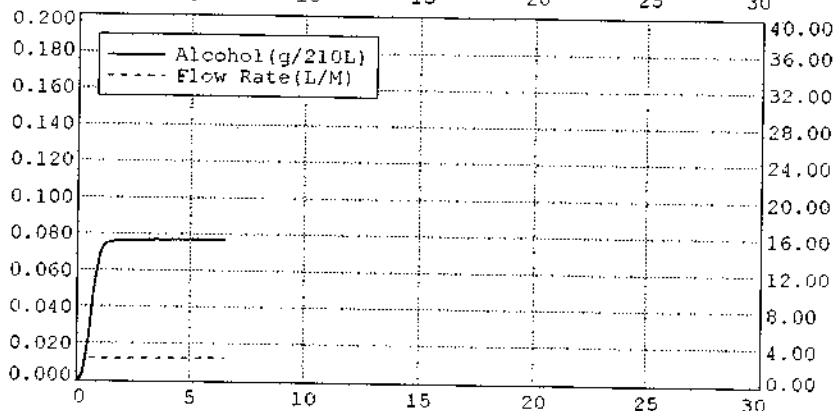
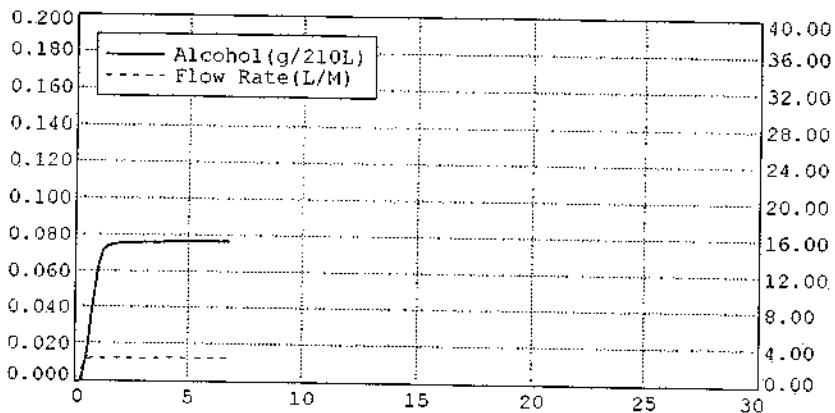
Date: 09/30/2015  
 Time: 09:58:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.44: 0.079  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 1059 psi

BLANK TEST	0.000	10:00
INTERNAL STANDARD	VERIFIED	10:00
EXTERNAL STANDARD	0.078	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.078	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.078	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.078	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.077	10:04
BLANK TEST	0.000	10:05

Average = 0.0778  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100676

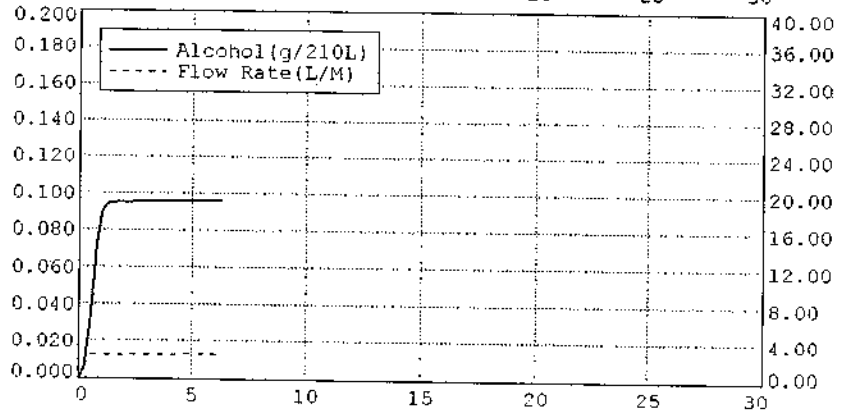
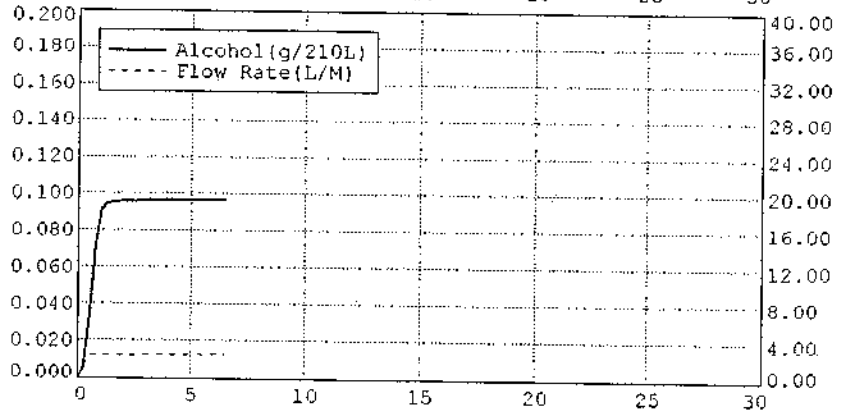
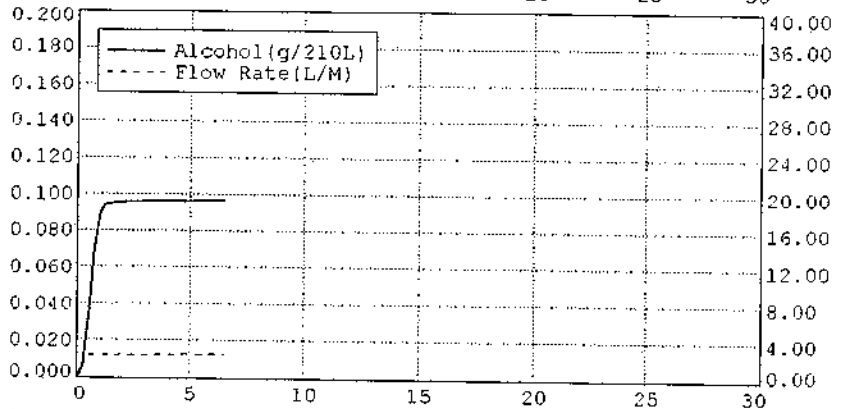
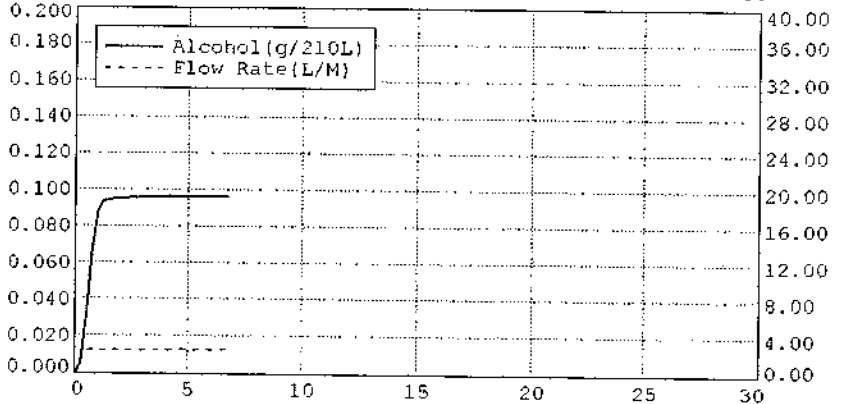
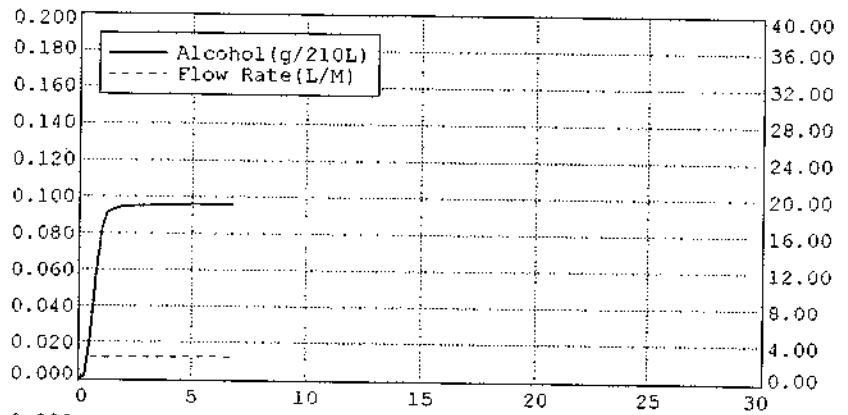
Date: 09/30/2015  
 Time: 10:06:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.44: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1083 psi

BLANK TEST	0.000	10:08
INTERNAL STANDARD	VERIFIED	10:08
EXTERNAL STANDARD	0.097	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.097	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.098	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.098	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.097	10:12
BLANK TEST	0.000	10:13

Average = 0.0974  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100676

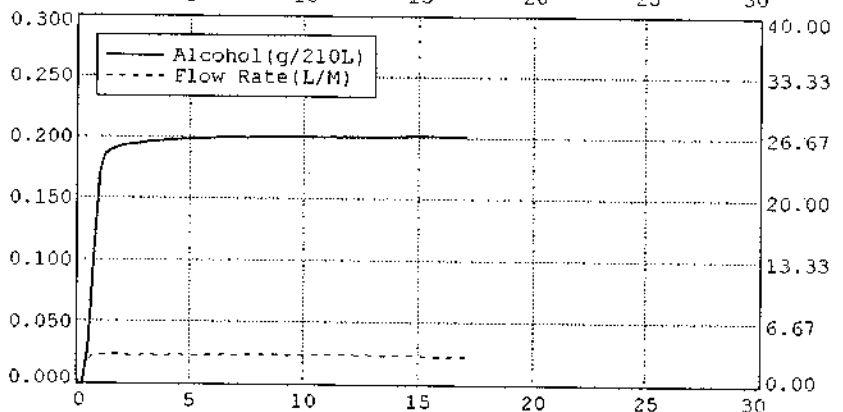
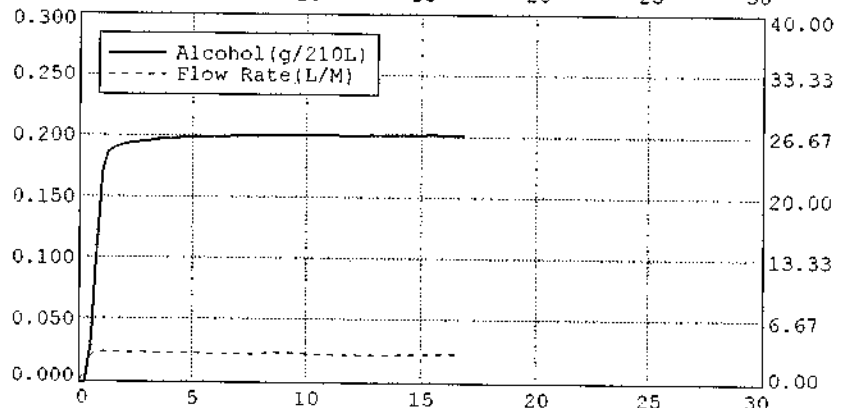
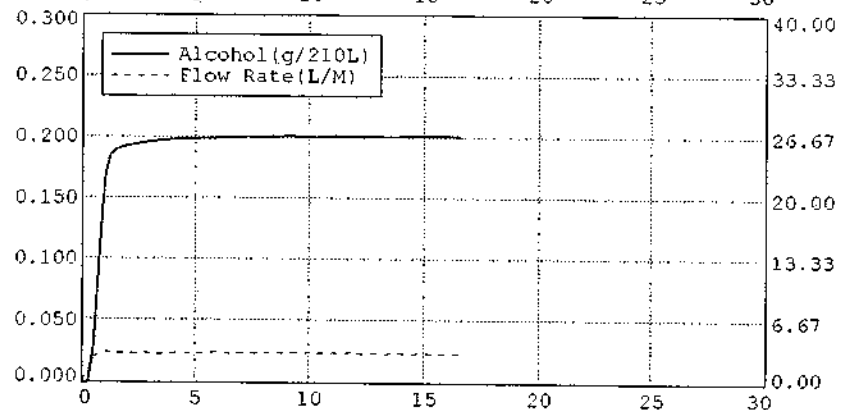
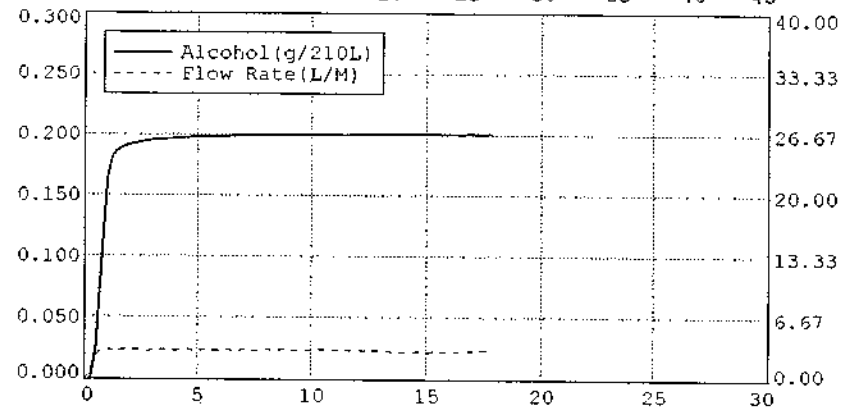
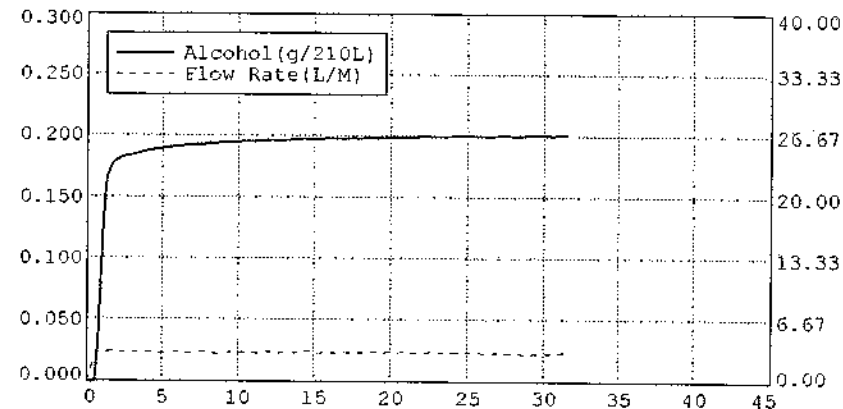
Date: 09/30/2015  
 Time: 10:14:41

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:15
INTERNAL STANDARD	VERIFIED	10:15
EXTERNAL STANDARD	0.201	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.202	10:17
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.202	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.202	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.202	10:21
BLANK TEST	0.000	10:22

Average = 0.2018  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

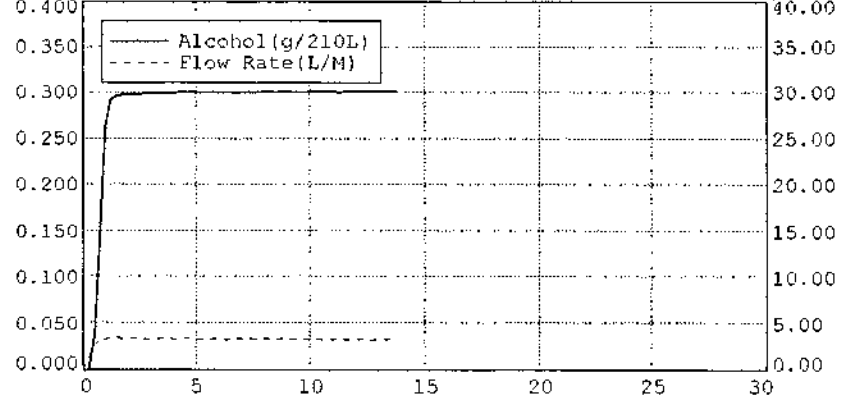
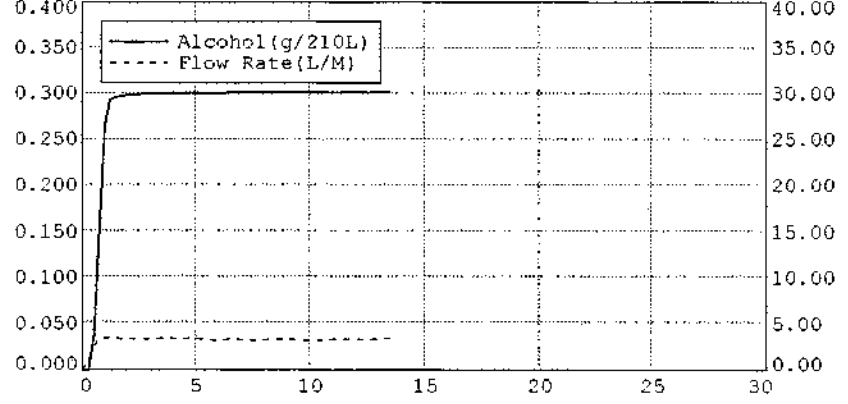
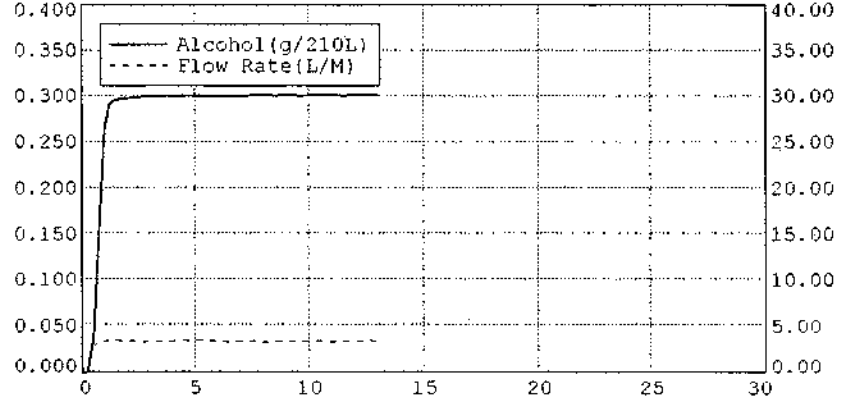
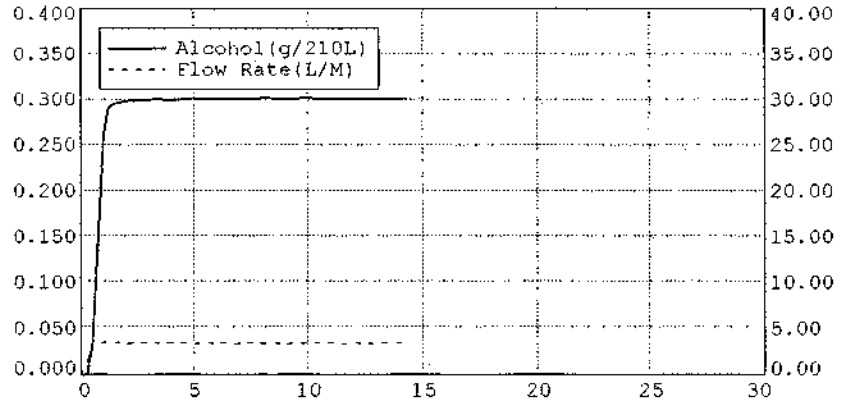
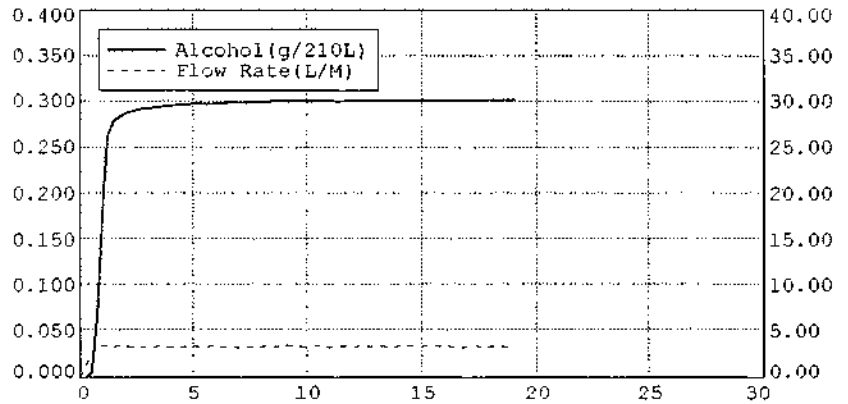
Alaska Department of Public Safety  
DATAMASTER dnt: 100676

Date: 09/30/2015  
Time: 10:25:14

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

BLANK TEST	0.000	10:26
INTERNAL STANDARD	VERIFIED	10:26
EXTERNAL STANDARD	0.301	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.301	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.301	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.301	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.301	10:31
BLANK TEST	0.000	10:32

Average = 0.3010  
Std Dev = 0.0000



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100676

Date: 09/30/2015  
Time: 13:08:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

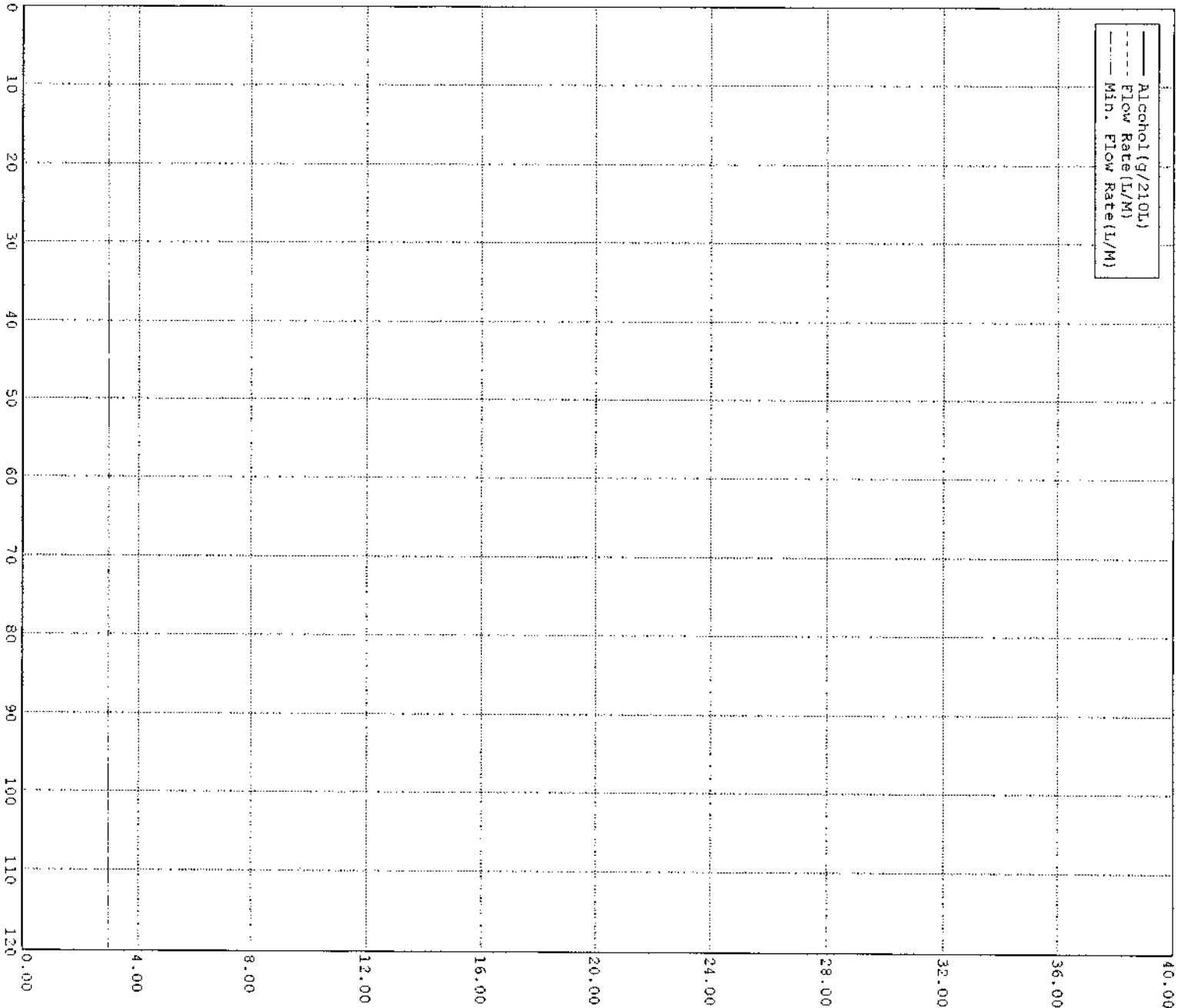
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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	13:10
BLANK TEST	0.000	13:10
INTERNAL STANDARD	VERIFIED	13:11
EXTERNAL STANDARD	0.078	13:11
BLANK TEST	0.000	13:12
SUBJECT SAMPLE	INCOMPLETE	13:14

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100676

Date: 09/30/2015  
Time: 13:19:21

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

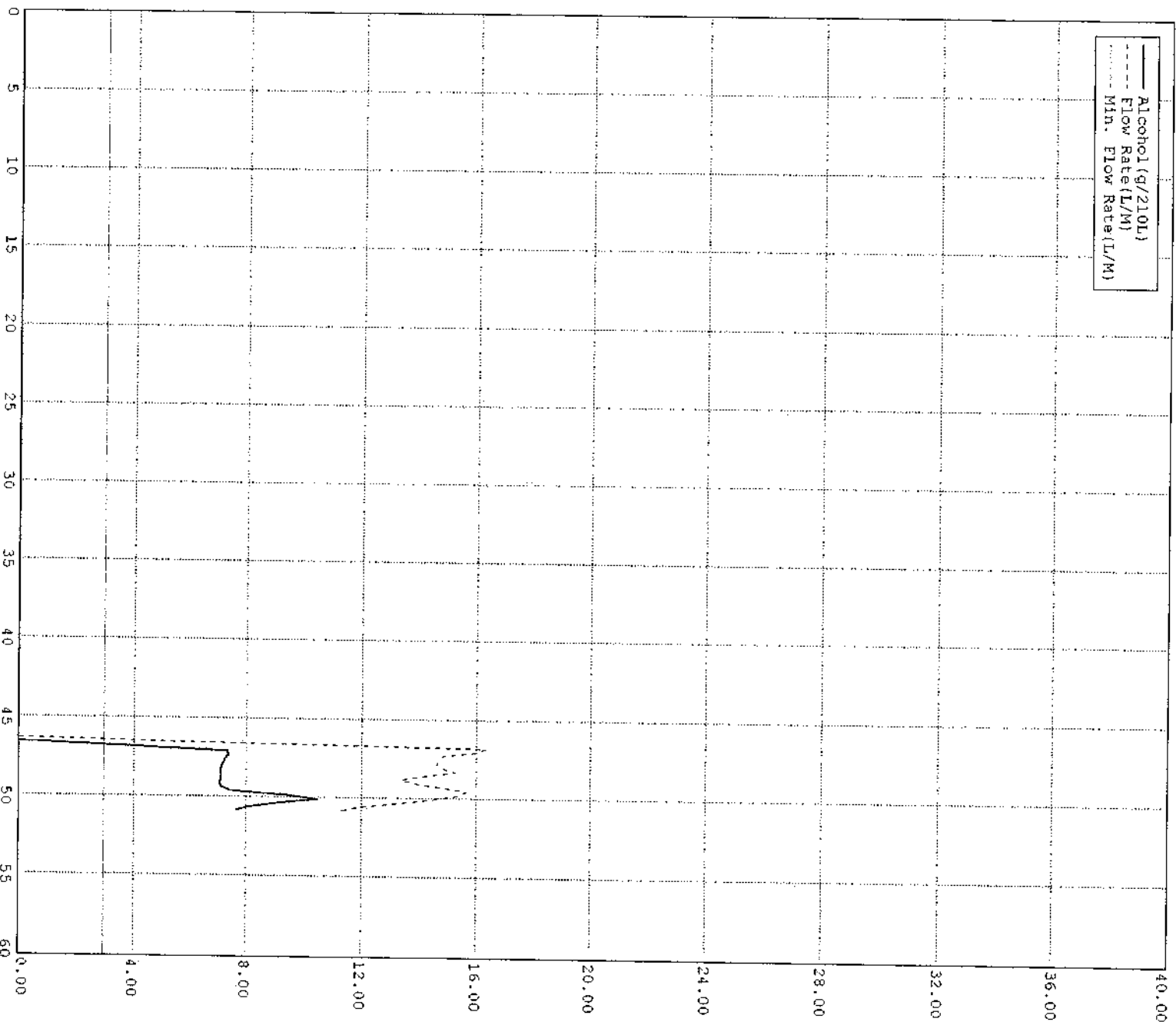
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

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

DIAGNOSTIC CHECK	PASSED	13:21
BLANK TEST	0.000	13:21
INTERNAL STANDARD	VERIFIED	13:21
EXTERNAL STANDARD	0.078	13:21
BLANK TEST	0.000	13:22
SUBJECT SAMPLE	INVALID	13:23

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100676

Date: 09/30/2015  
Time: 13:49:36

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX  
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

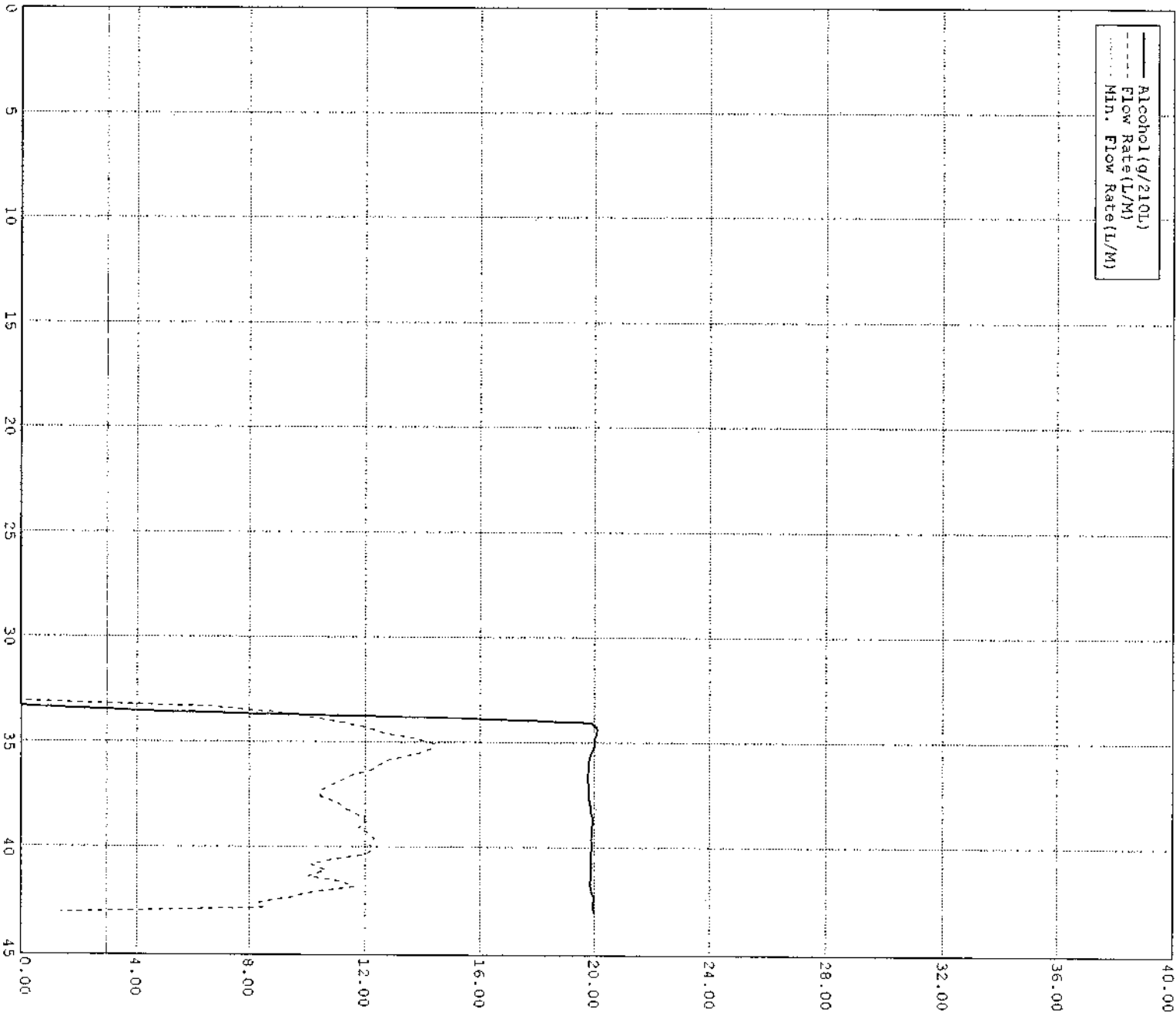
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:50
BLANK TEST	0.000	13:50
INTERNAL STANDARD	VERIFIED	13:50
Xq = 0.089 (0.40%)		
EXTERNAL STANDARD	0.078	13:51
X[1] = 0.0780 (0.0002)	(0.0019)	
BLANK TEST	0.000	13:51
SUBJECT SAMPLE	XXX	13:52
X[1] = 0.1002 (-0.0165)	(-0.0009)	

Interference Detected

Filter 2 Avg: 0.0004  
Filter 3 Avg: 0.0018  
10/1/15 BMB

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100676

Date: 09/30/2015  
Time: 14:01:09

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

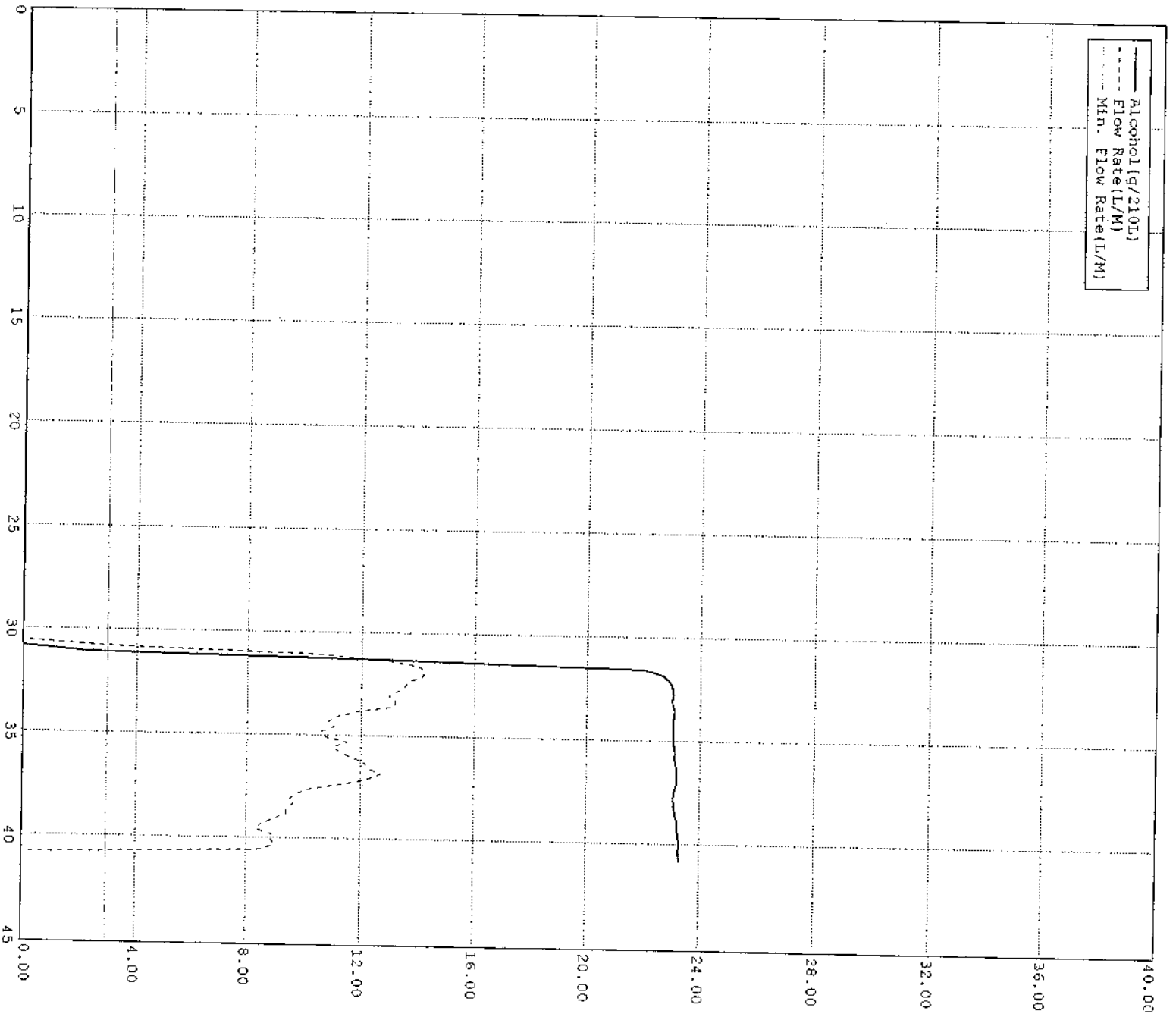
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOI #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:03
BLANK TEST	0.000	14:04
INTERNAL STANDARD	VERIFIED	14:04
Xq = 0.089 (0.99%)		
EXTERNAL STANDARD	0.079	14:04
X[1] = 0.0787 (0.0001)	0.0014	
BLANK TEST	0.000	14:05
SUBJECT SAMPLE	XXX	14:06
X[1] = 0.1167 (-0.0248)	(-0.0001)	

Interference Detected

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100676

Date: 09/30/2015  
Time: 14:09:39

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

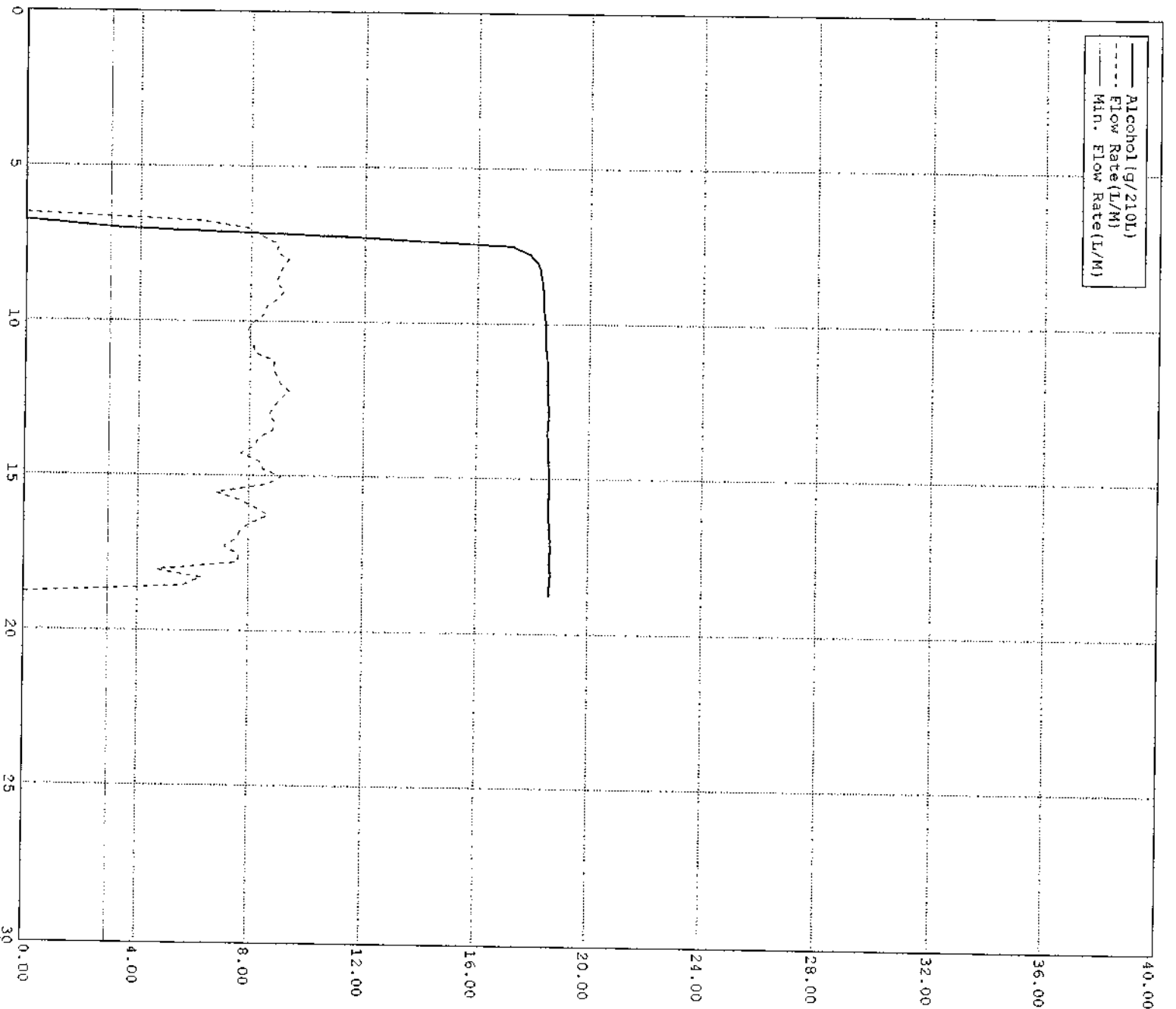
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.64: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:11
BLANK TEST	0.006	14:11
INTERNAL STANDARD	VERIFIED	14:11
Xq = 0.089 (0.59%)		
EXTERNAL STANDARD	0.078	14:11
X[1] = 0.0783 (0.0006)	(0.0019)	
BLANK TEST	0.000	14:12
SUBJECT SAMPLE (Vol=1.65L)	0.093	14:12
X[1] = 0.0938 (-0.0016)	(-0.0002)	
BLANK TEST	0.000	14:13
EXTERNAL STANDARD	0.078	14:13
X[1] = 0.0779 (0.0008)	(0.0019)	
BLANK TEST	0.000	14:14

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100676

Date: 09/30/2015  
Time: 13:28:55

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

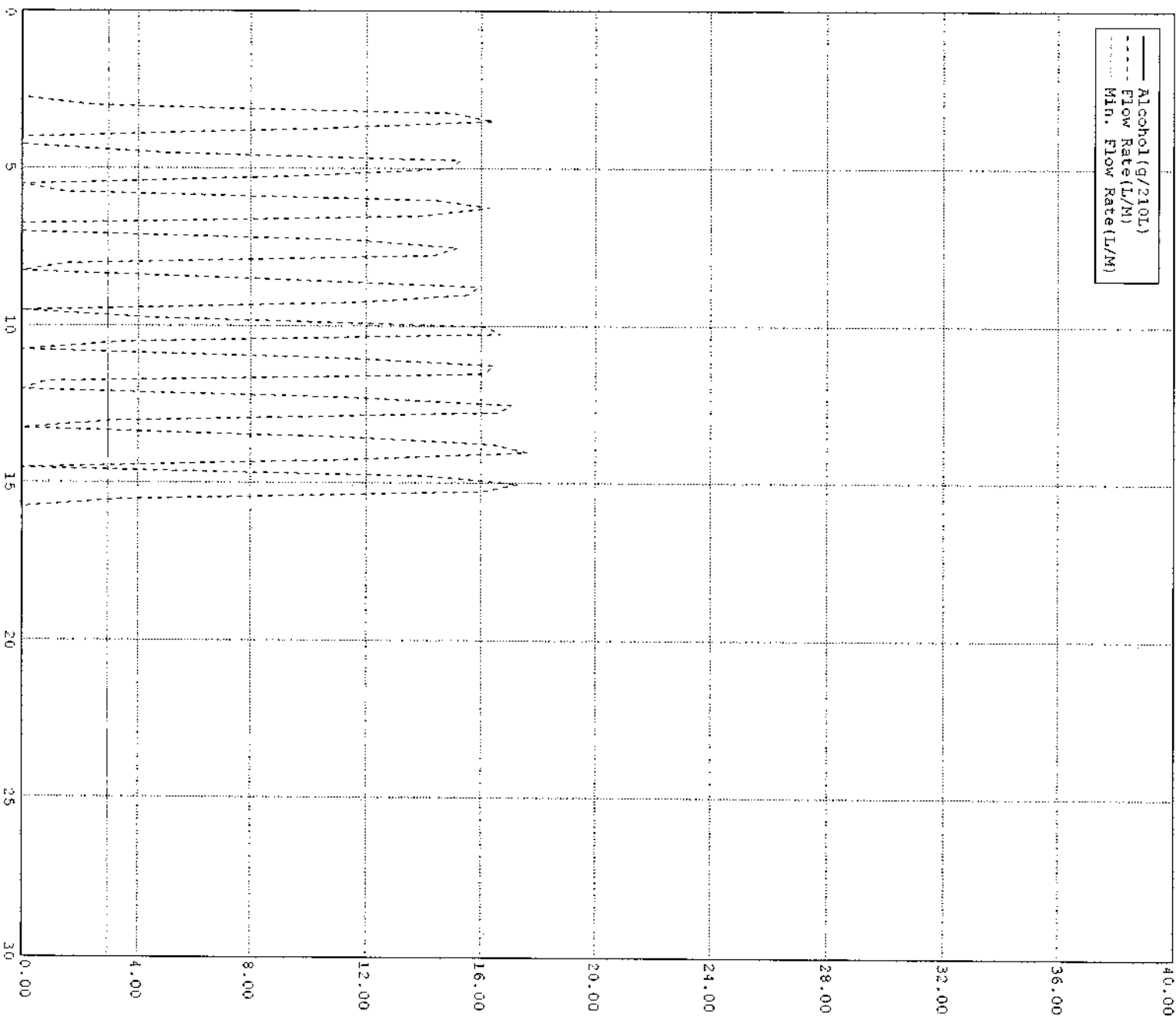
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AV: 29.60: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:30
BLANK TEST	0.000	13:31
INTERNAL STANDARD	0.079	13:31
EXTERNAL STANDARD	0.000	13:32
BLANK TEST	XXX	13:32

Maximum Attempts Exceeded

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100676

Date: 09/30/2015  
Time: 13:40:27

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

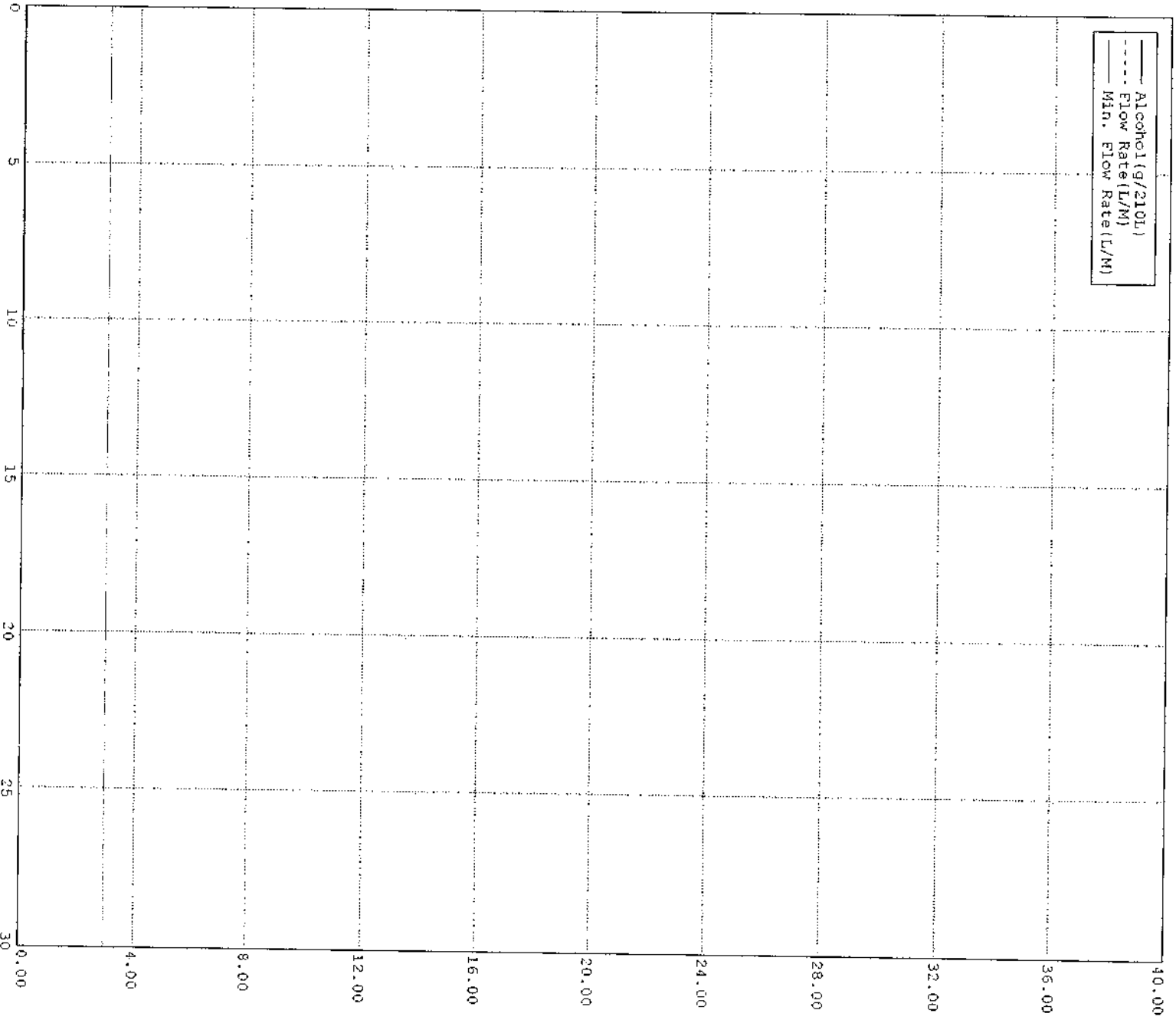
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

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

DIAGNOSTIC CHECK	PASSED	13:43
BLANK TEST	0.000	13:43
INTERNAL STANDARD	0.078	13:43
EXTERNAL STANDARD	0.000	13:44

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100676

Date: 09/30/2015  
Time: 14:45:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.65: 0.079  
IOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:46
BLANK TEST	0.000	14:46
INTERNAL STANDARD	VERIFIED	14:46
EXTERNAL STANDARD	0.079	14:46
BLANK TEST	0.000	14:47
SUBJECT SAMPLE (Vol=1.98L)	0.000	14:48
BLANK TEST	0.000	14:48
EXTERNAL STANDARD	0.079	14:49
BLANK TEST	0.000	14:50

BMB

