

# 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 100382 Analyst Brandi Barnett Start Date 11/30/16

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 Airgas Lot 60050# AGG08504 Exp 3/25/18  
2008 12 15/16
  - 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 DR6267 Date Calibrated 3/3/16
  - vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
    - 1. Simulator S/N DR4176 Date Calibrated 3/3/16

5. Functional Tests (attached)
- a. Incomplete
  - b. Invalid
  - c. Interference
  - d. Exceeded attempts
- i. Acetone - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
    - 1. Simulator S/N DR4162 Date Calibrated 3/2/16
  - ii. Isopropanol - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
    - 1. Simulator S/N DR4163 Date Calibrated 3/2/16
  - iii. Negative Control - Mnf Guth Lot 116160 Level 0.100 Exp 7/19/18
    - 1. Simulator S/N SD1176 Date Calibrated 3/4/16

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 12/1/16

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
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Date: 11/30/2016  
Time: 08:28:10

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

TEMPERATURES

Sample Chamber = 48.9°C            PASSED  
(44.0°C - 52.0°C)  
Breath Tube       = 45.8°C           PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage    = 1.60 V            PASSED  
(0.98 v - 2.28 v)  
Cooler Voltage = 1.65 V           PASSED  
(1.03 v - 2.39 v)  
Bias Voltage    = 79 V              PASSED  
(48 v - 112 v)  
Chopper Freq   = 534 Hz            PASSED  
(475 Hz - 575 Hz)  
Barometer       = 29.3 in

PUMP INFO

Flow Rate = 5.116 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 = 0.096 0.73% (0.00% - 4.00%)            PASSED

Technician Screen

-----  
DATAMASTER dmt: 100382  
-----

Date: 11/30/2016  
Time: 8:44 AM

Temperatures (°C)

Sample Cell: 48.9°C  
Breath Tube: 45.6°C

Current Barometer 29.2 in  
Volume (Ltr) 1.58

Settings

Lamp: 1.60 V  
Bias: 79 V  
Cooler: 1.65 V  
Chopper: 534 Hz

Voltages (V)

Flow: 1.04 V  
Detector: 0.021 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100382  
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Date: 03/08/2011  
Time: 12:50:56

Ca = 0.1000  
CAL = 0.980421    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0038    0.0010 <= b2 < 0.0100  
b3 = 0.0002    0.0000 <= b3 < 0.0040  
Xq = 0.0953    0.0500 <= Xq < 0.2000  
a21 = 1.172812    1.050 <= a21 < 1.300  
a31 = 0.453890    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/30/2016  
Time: 08:48:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

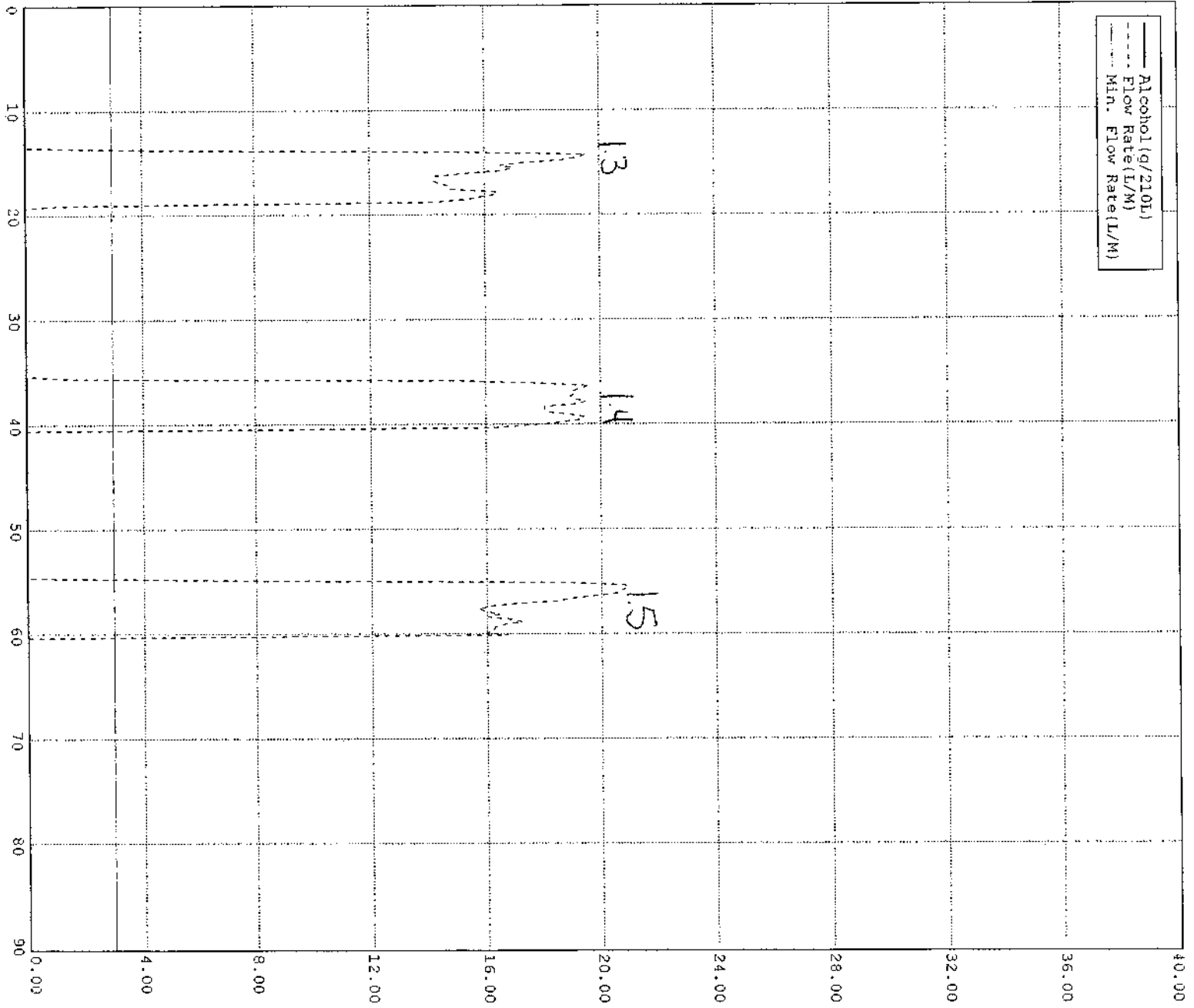
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.21: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	08:52
BLANK TEST	0.000	08:52
INTERNAL STANDARD	VERIFIED	08:52
EXTERNAL STANDARD	0.078	08:52
BLANK TEST	0.000	08:53
SUBJECT SAMPLE (Vol=1.59L)	0.000	08:54
BLANK TEST	0.000	08:55
EXTERNAL STANDARD	0.077	08:56
BLANK TEST	0.000	08:57

*BBB*



LINEARITY CHECK

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

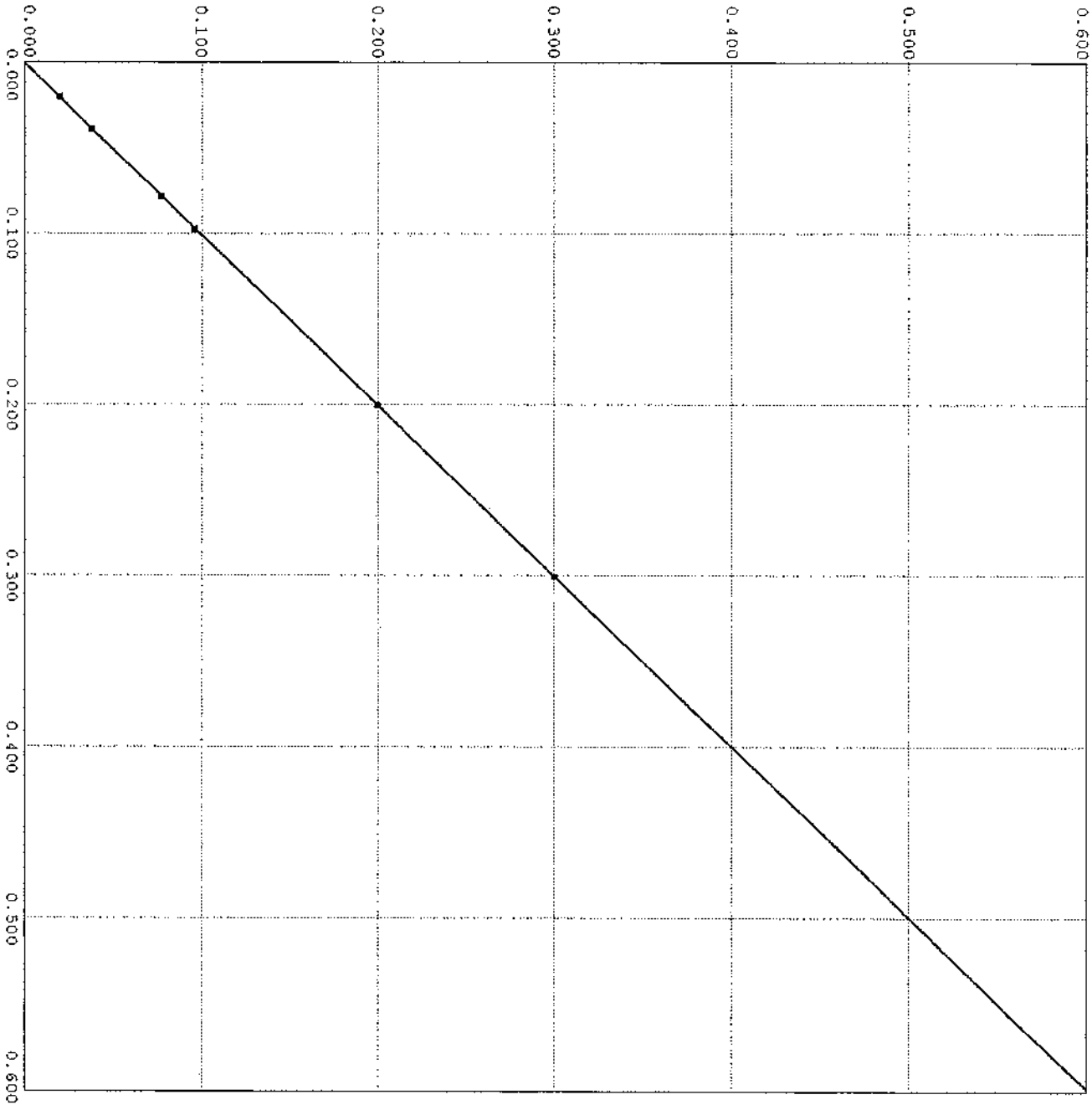
Date: 11/30/2016  
Time: 09:49:11

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0009
0.039	0.0388	0.0004
0.078	0.0778	0.0004
0.097	0.0968	0.0004
0.200	0.2004	0.0009
0.306	0.3012	0.0004

SLOPE = 1.004060  
R<sup>2</sup> = 0.999990

BMB



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

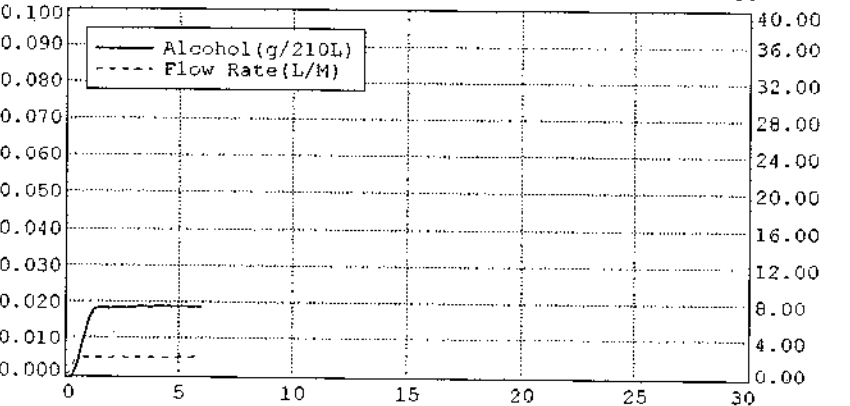
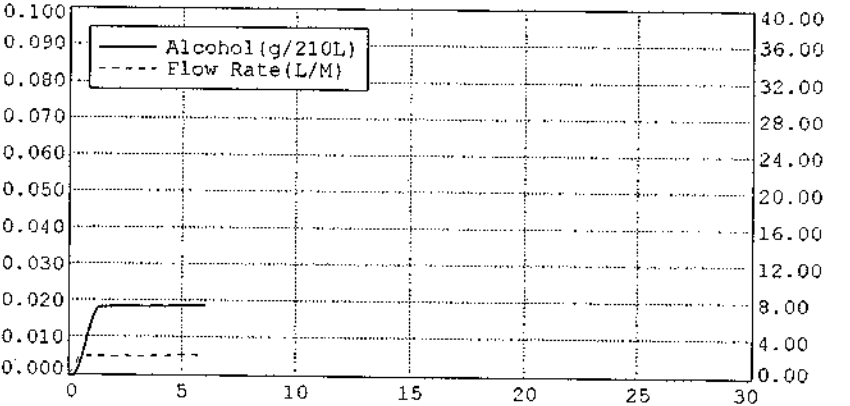
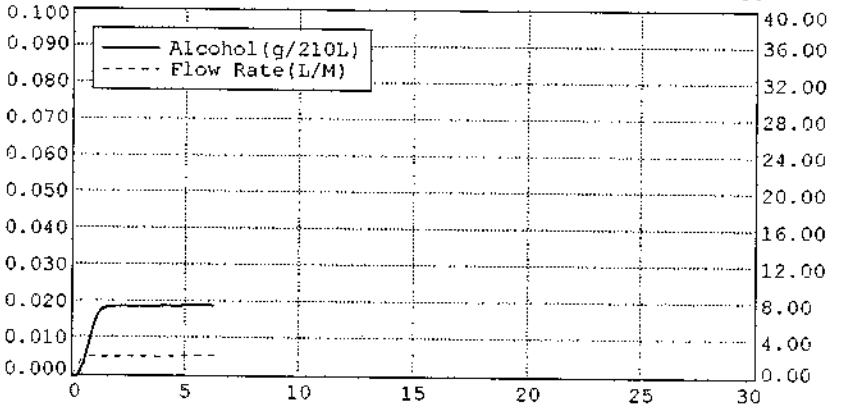
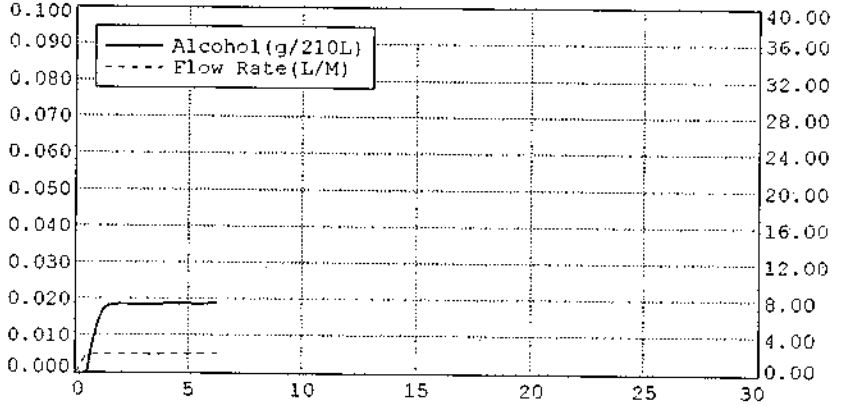
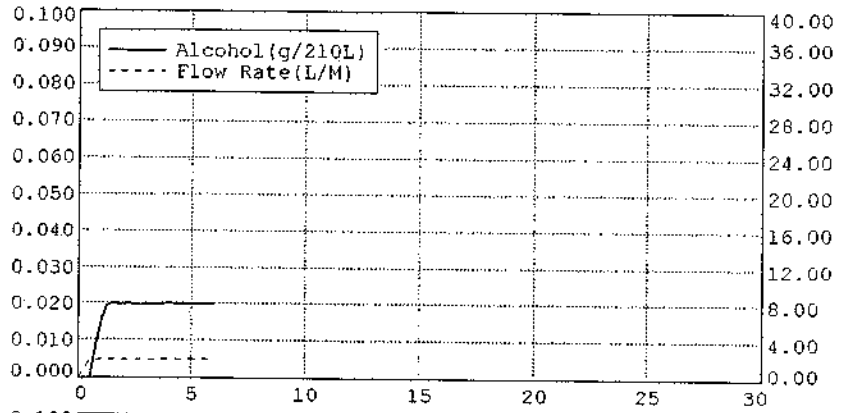
Date: 11/30/2016  
 Time: 09:49:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.21: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 295 psi

BLANK TEST	0.000	10:06
INTERNAL STANDARD	VERIFIED	10:07
EXTERNAL STANDARD	0.022	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.020	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.020	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.020	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.020	10:11
BLANK TEST	0.000	10:12

Average = 0.0204  
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

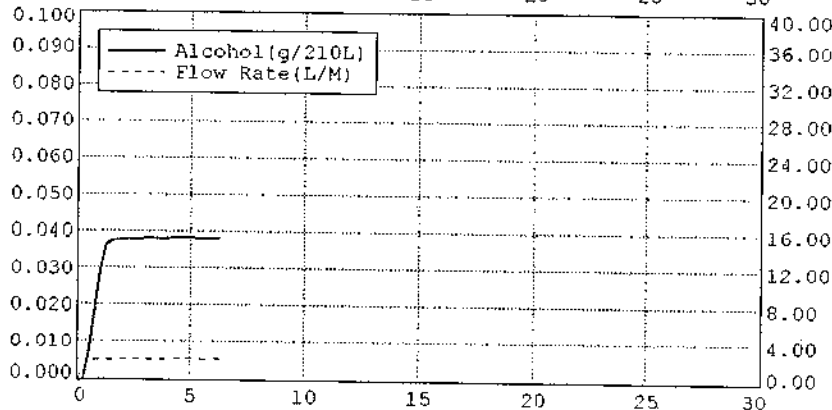
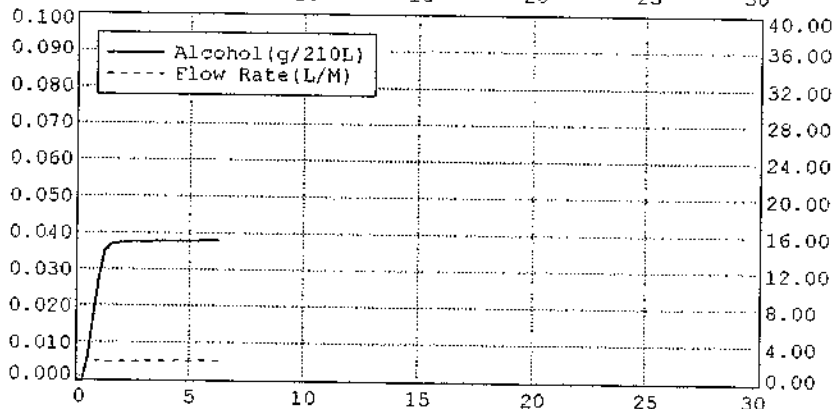
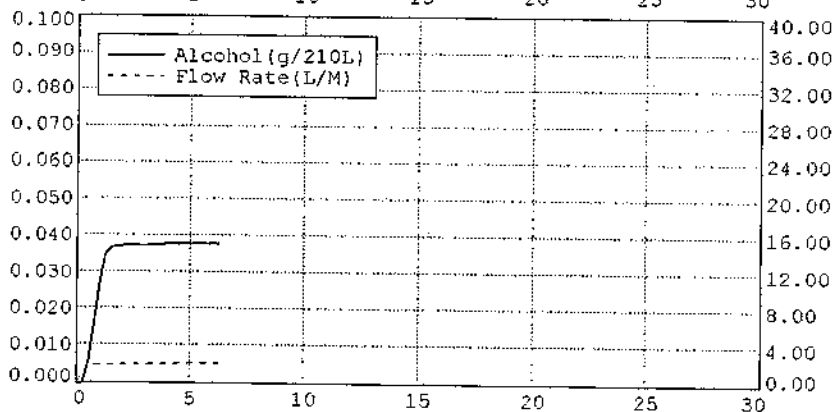
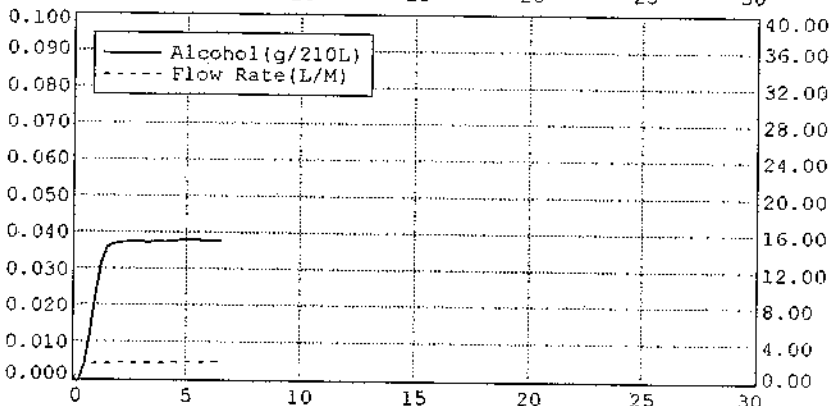
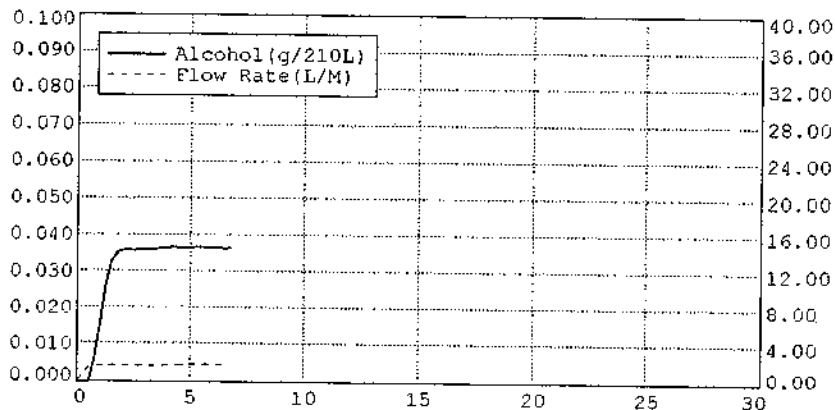
Date: 11/30/2016  
 Time: 10:25:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.21: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 162 psi

BLANK TEST	0.000	10:26
INTERNAL STANDARD	VERIFIED	10:26
EXTERNAL STANDARD	0.038	10:26
BLANK TEST	0.000	10:27
EXTERNAL STANDARD	0.039	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.039	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.039	10:30
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.039	10:31
BLANK TEST	0.000	10:32

Average = 0.0388  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

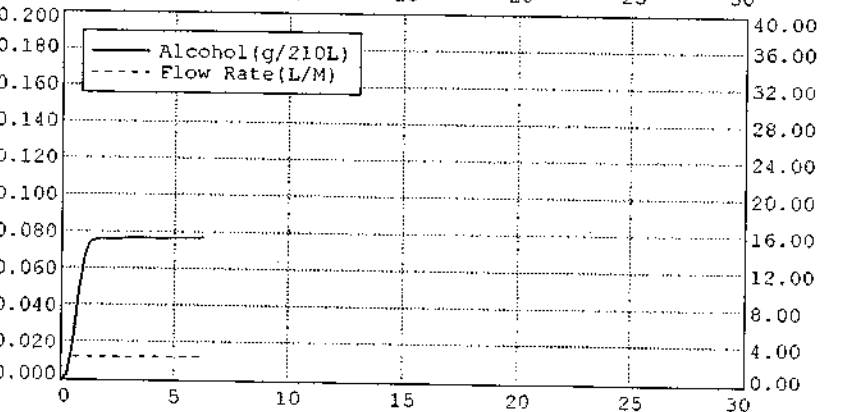
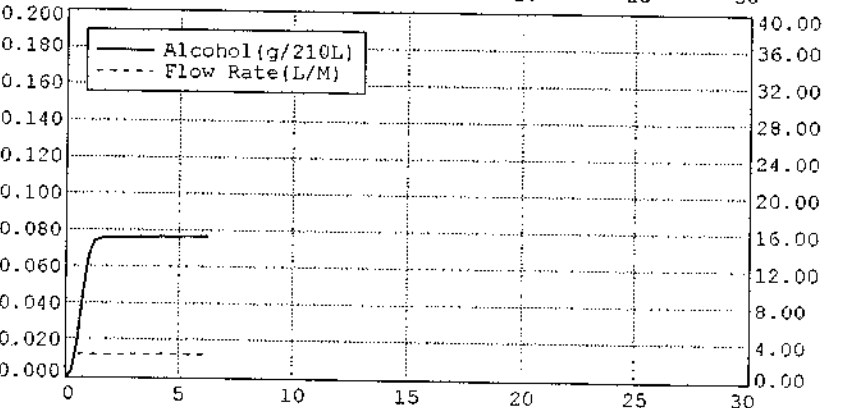
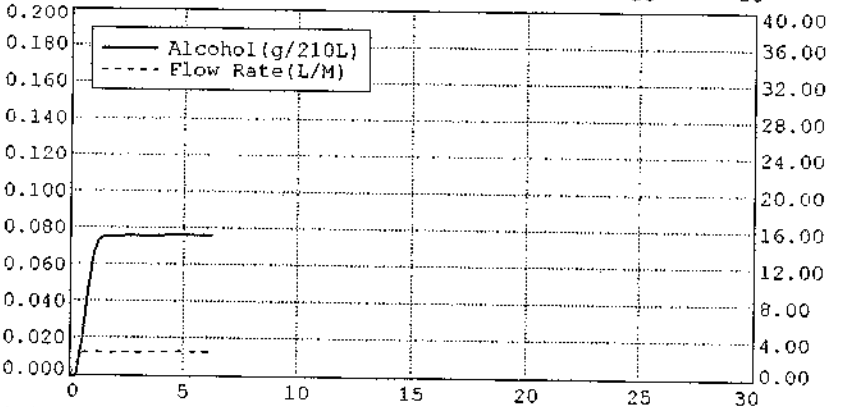
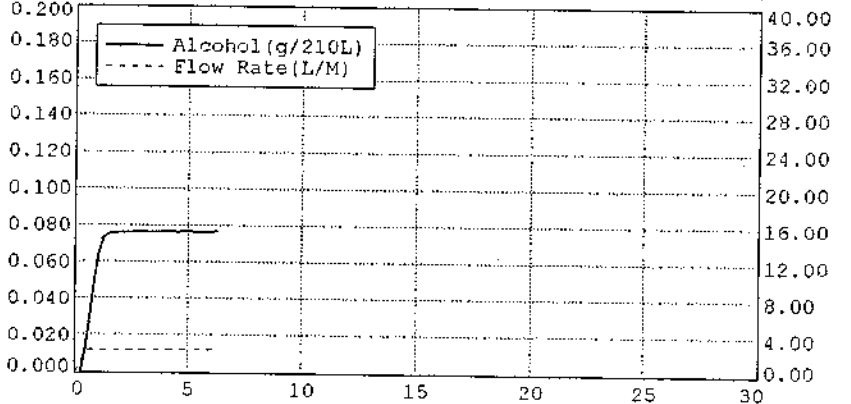
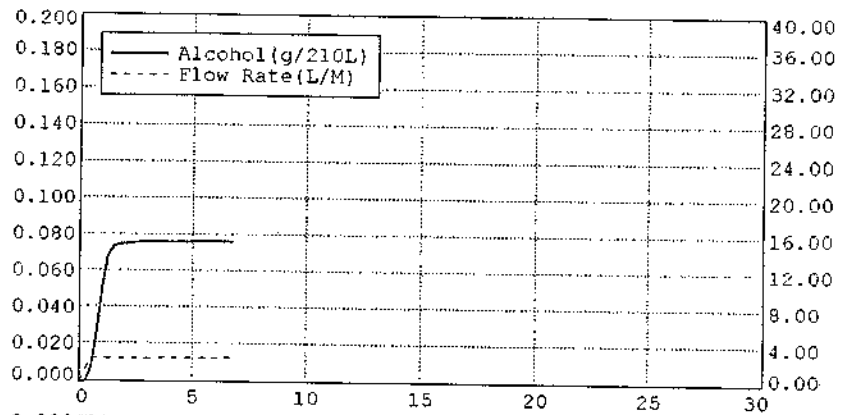
Date: 11/30/2016  
 Time: 10:41:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.21: 0.078  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 437 psi

BLANK TEST	0.000	10:43
INTERNAL STANDARD	VERIFIED	10:43
EXTERNAL STANDARD	0.077	10:43
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.078	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.078	10:45
BLANK TEST	0.000	10:46
EXTERNAL STANDARD	0.078	10:46
BLANK TEST	0.000	10:47
EXTERNAL STANDARD	0.078	10:47
BLANK TEST	0.000	10:48

Average = 0.0778  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

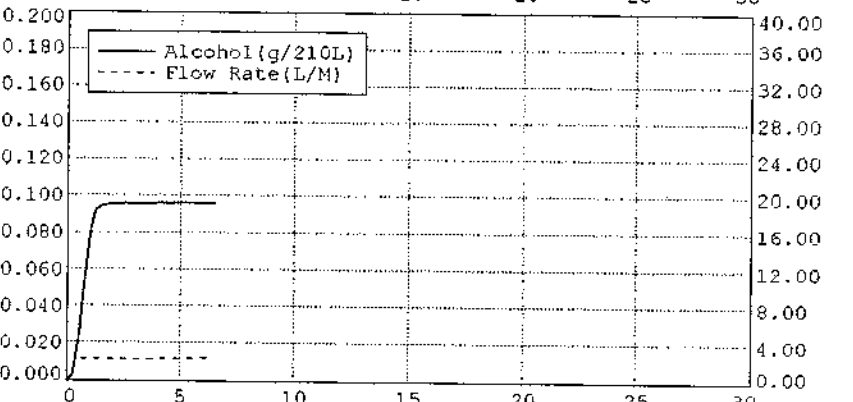
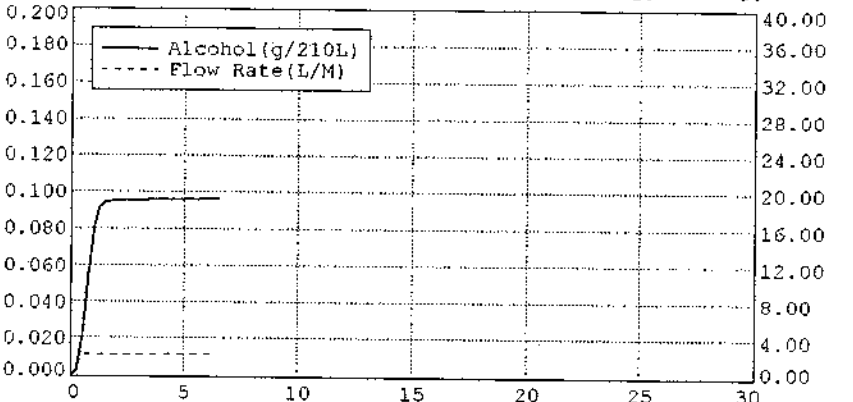
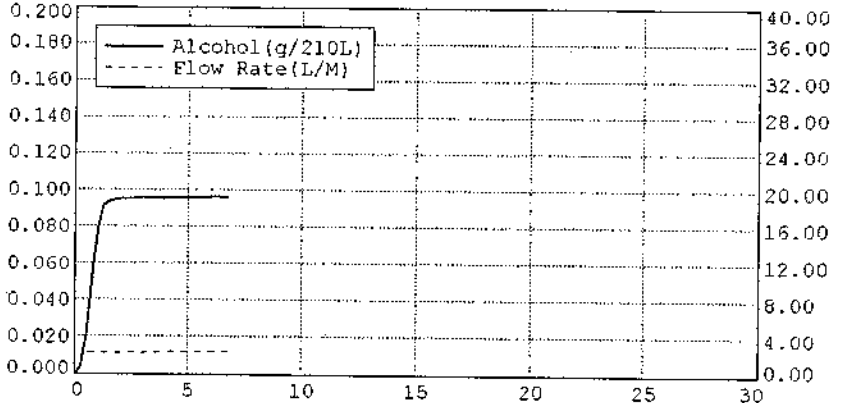
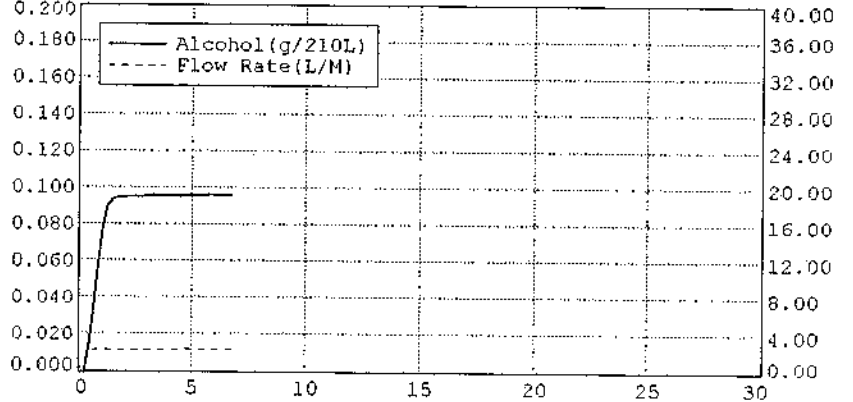
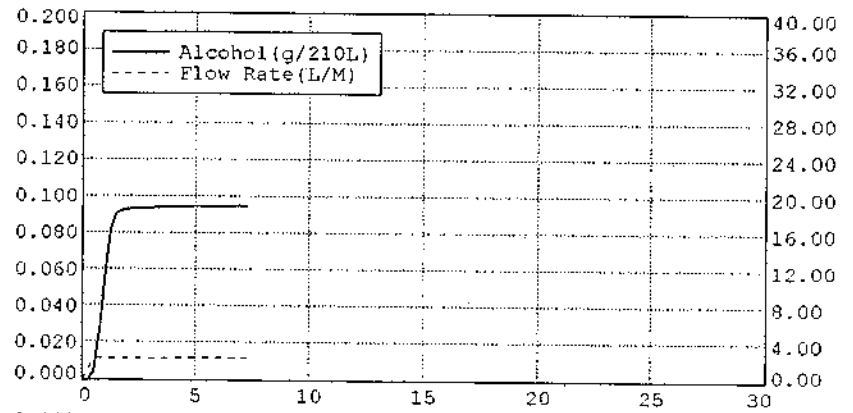
Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

Date: 11/30/2016  
 Time: 13:02:16

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.100  
 TARGET AT 29.16: 0.097  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 338 psi

BLANK TEST	0.000	13:03
INTERNAL STANDARD	VERIFIED	13:03
EXTERNAL STANDARD	0.096	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.097	13:05
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.097	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.097	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.097	13:08
BLANK TEST	0.000	13:09

Average = 0.0968  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

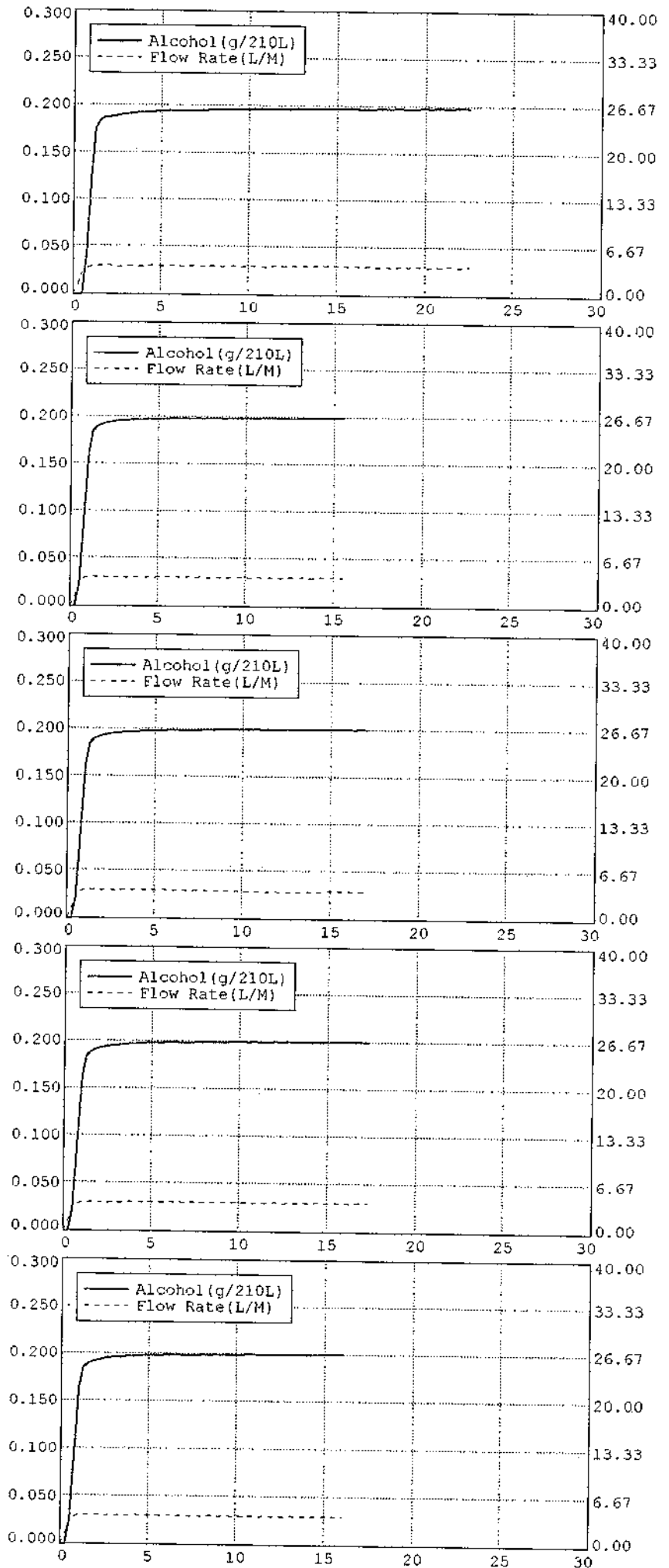
Date: 11/30/2016  
 Time: 13:12:32

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:13
INTERNAL STANDARD	VERIFIED	13:14
EXTERNAL STANDARD	0.199	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.200	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.201	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.201	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.201	13:19
BLANK TEST	0.000	13:20

Average = 0.2004  
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100382

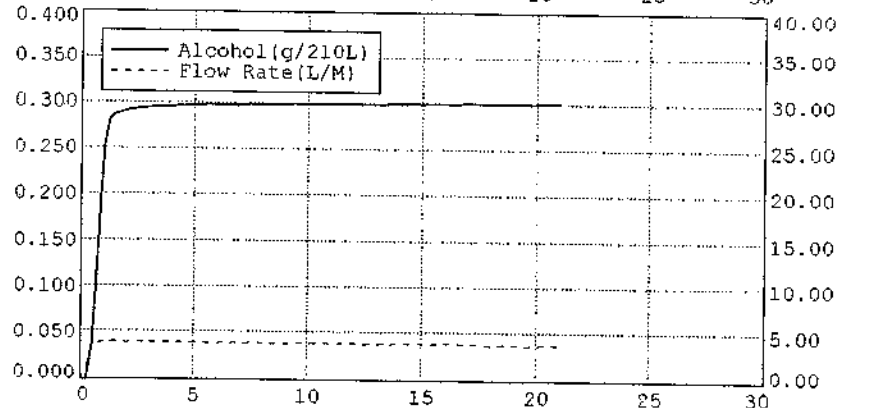
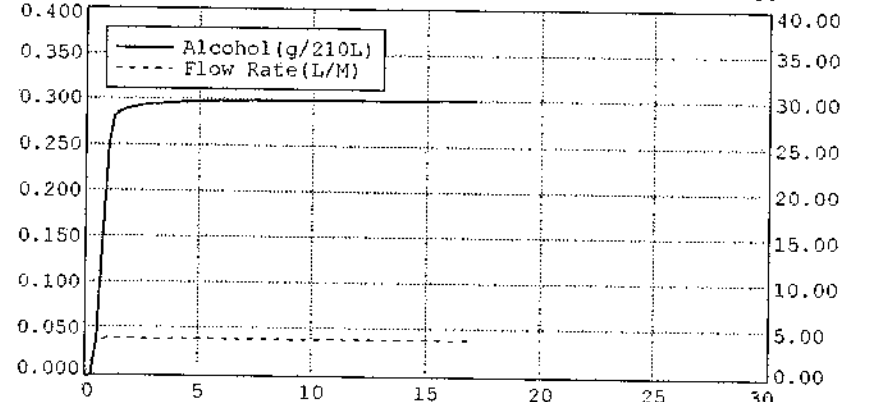
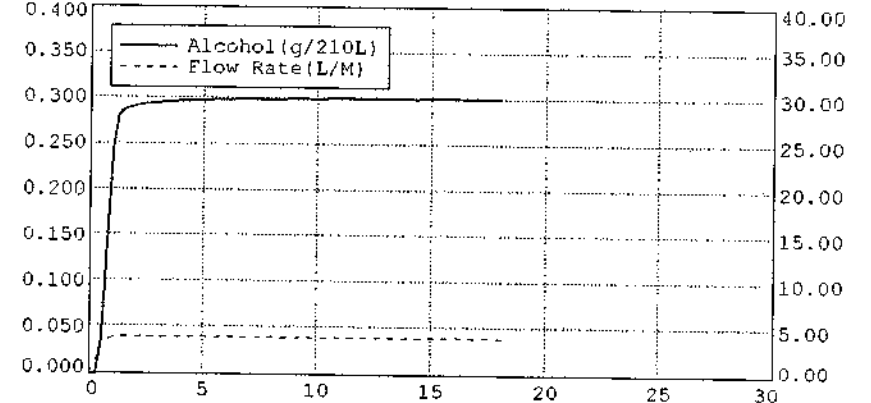
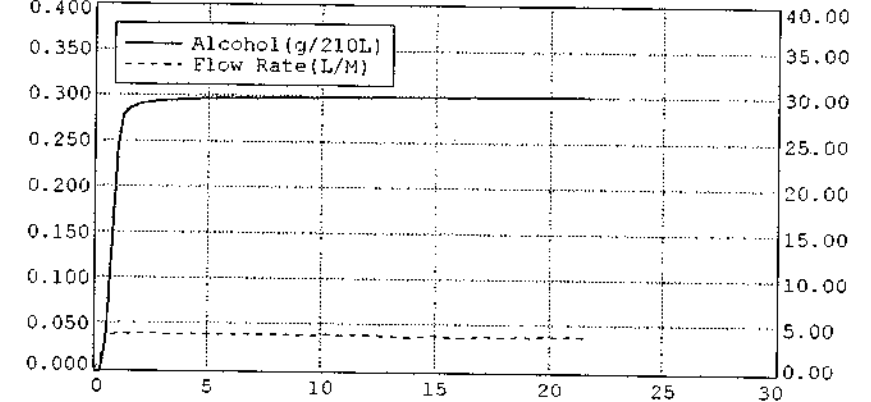
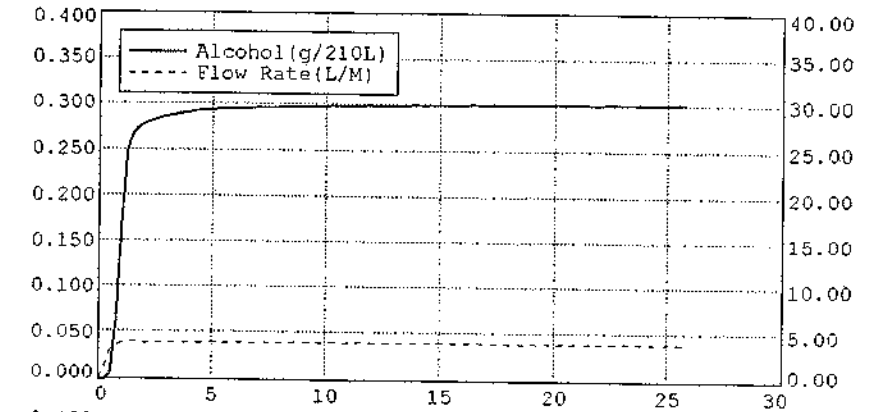
Date: 11/30/2016  
 Time: 13:22:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: GUTH 15170  
 EXPIRATION: 07/20/2017

BLANK TEST	0.000	13:24
INTERNAL STANDARD	VERIFIED	13:24
EXTERNAL STANDARD	0.302	13:24
BLANK TEST	0.000	13:25
EXTERNAL STANDARD	0.301	13:26
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.301	13:27
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.301	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.301	13:30
BLANK TEST	0.000	13:30

Average = 0.3012  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/30/2016  
Time: 13:46:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

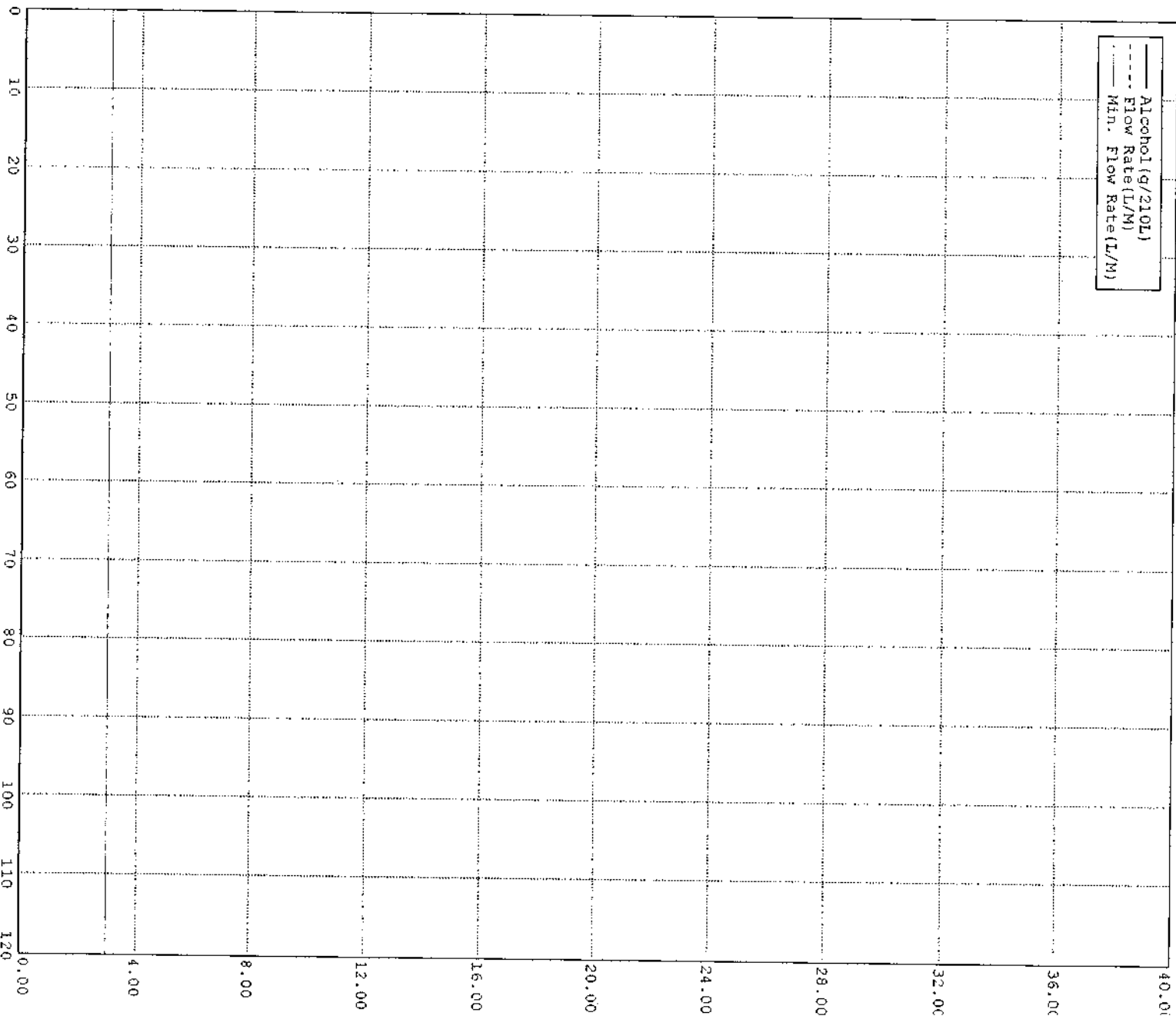
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.12: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:49
BLANK TEST	0.000	13:49
INTERNAL STANDARD	VERIFIED	13:49
EXTERNAL STANDARD	0.077	13:49
BLANK TEST	0.000	13:50
SUBJECT SAMPLE	INCOMPLETE	13:52

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100382

Date: 11/30/2016  
Time: 13:54:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

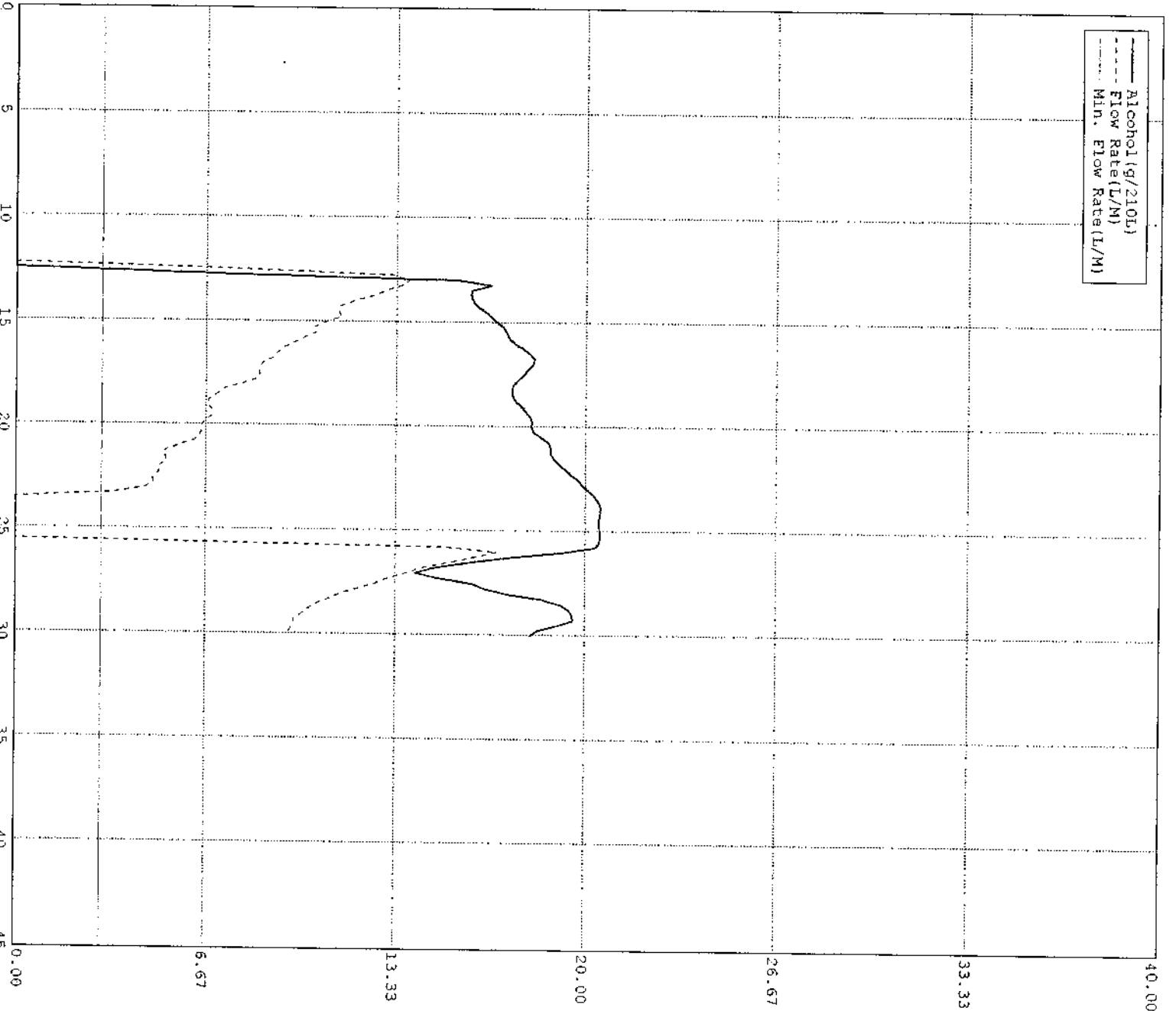
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.13: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:56
BLANK TEST	0.000	13:56
INTERNAL STANDARD	VERIFIED	13:56
EXTERNAL STANDARD	0.077	13:56
BLANK TEST	0.000	13:57
SUBJECT SAMPLE	INVALID	13:58

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100382

Date: 12/01/2016  
Time: 09:00:09

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 29.01: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

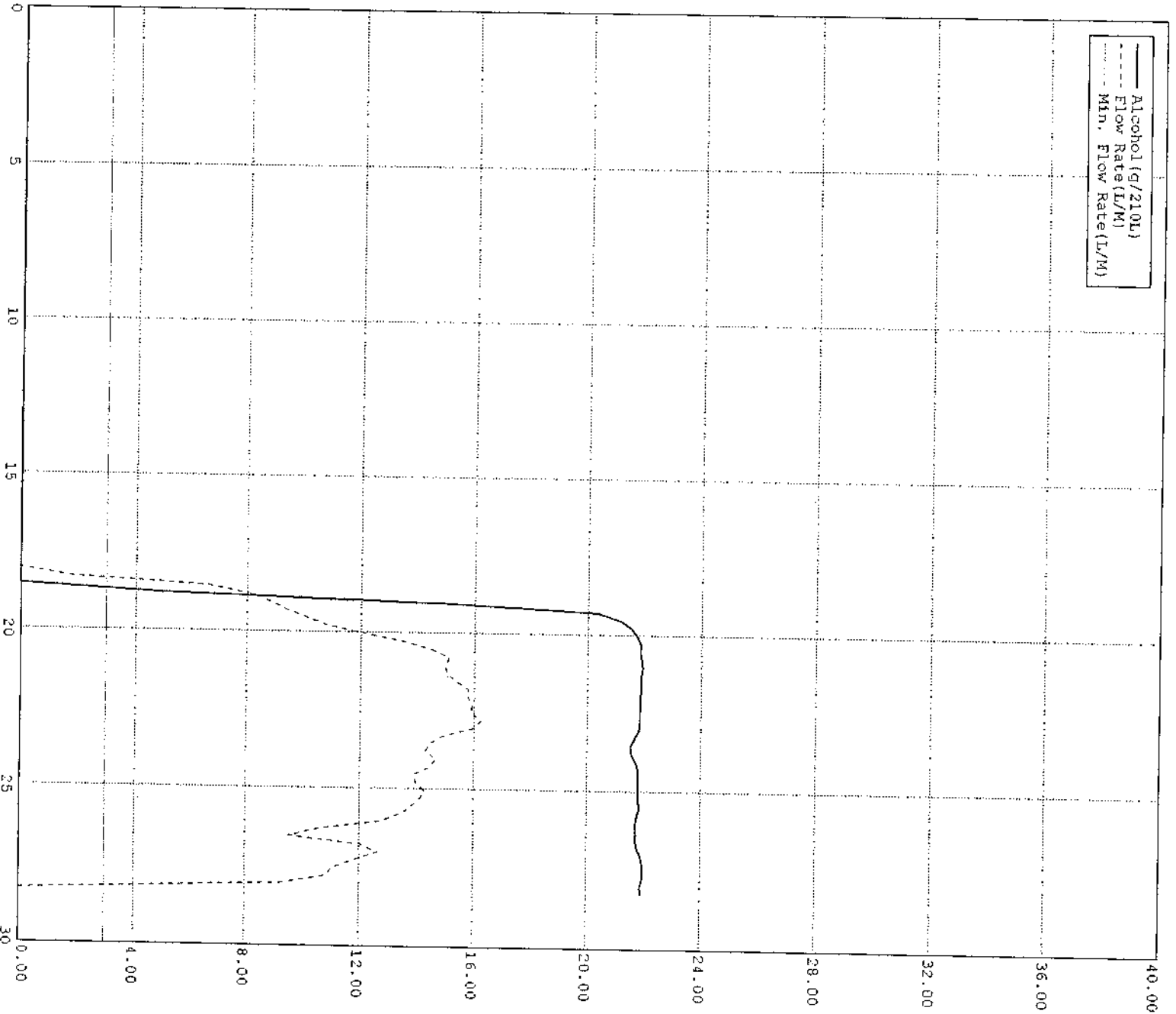
DIAGNOSTIC CHECK	PASSED	09:01
BLANK TEST	0.000	09:01
INTERNAL STANDARD	VERIFIED	09:01
Xg = 0.096 (0.64%)		
EXTERNAL STANDARD	0.076	09:01
X[1] = 0.0759 (-0.0024)	(0.0012)	
BLANK TEST	0.000	09:02
SUBJECT SAMPLE	XXX	09:03
X[1] = 0.1105 (-0.0177)	(0.0002)	

Interference Detected

Filter 2 Avg: -0.0001  
Filter 3 Avg: 0.0021

BMB 12/1/16

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 12/01/2016  
Time: 09:10:44

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

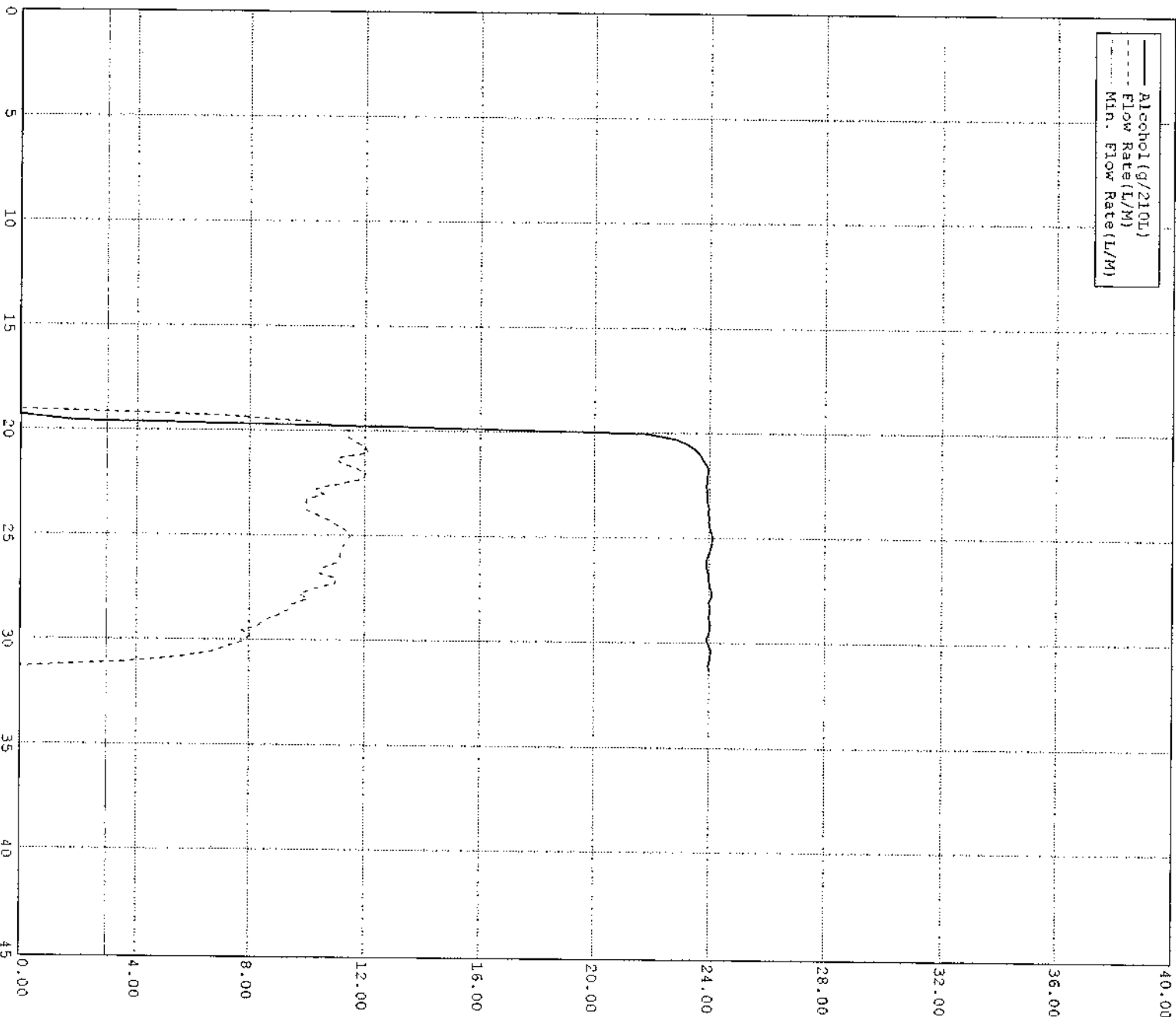
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.01: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 09:11  
BLANK TEST 0.000 09:11  
INTERNAL STANDARD VERIFIED 09:12  
Xq = 0.096 (0.28%)  
EXTERNAL STANDARD 0.077 09:12  
X[1] = 0.0769 (-0.0002) (0.0029)  
BLANK TEST 0.000 09:13  
SUBJECT SAMPLE XXX 09:13  
X[1] = 0.1208 (-0.0260) (0.0009)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 12/01/2016  
Time: 09:24:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

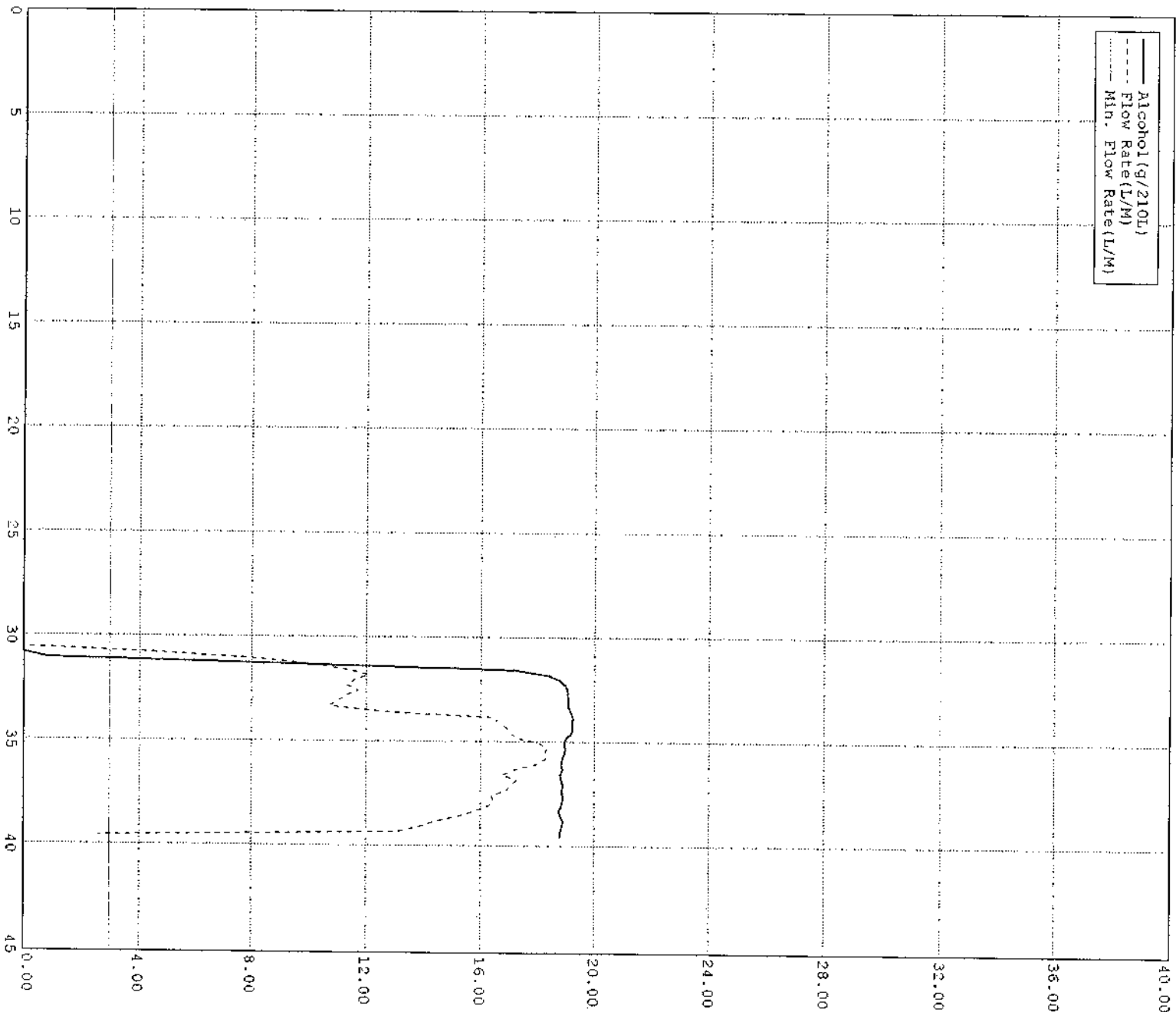
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.02: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:25
BLANK TEST	0.000	09:25
INTERNAL STANDARD	VERIFIED	09:25
Xq = 0.096 (0.55%)		
EXTERNAL STANDARD	0.078	09:26
X[1] = 0.0775 (0.0016) (0.0027)		
BLANK TEST	0.000	09:26
SUBJECT SAMPLE (Vol=2.12L)	0.095	09:27
X[1] = 0.0952 (-0.0019) (0.0004)		
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.077	09:28
X[1] = 0.0766 (0.0005) (0.0016)		
BLANK TEST	0.000	09:29

FBMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 11/30/2016  
Time: 14:29:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

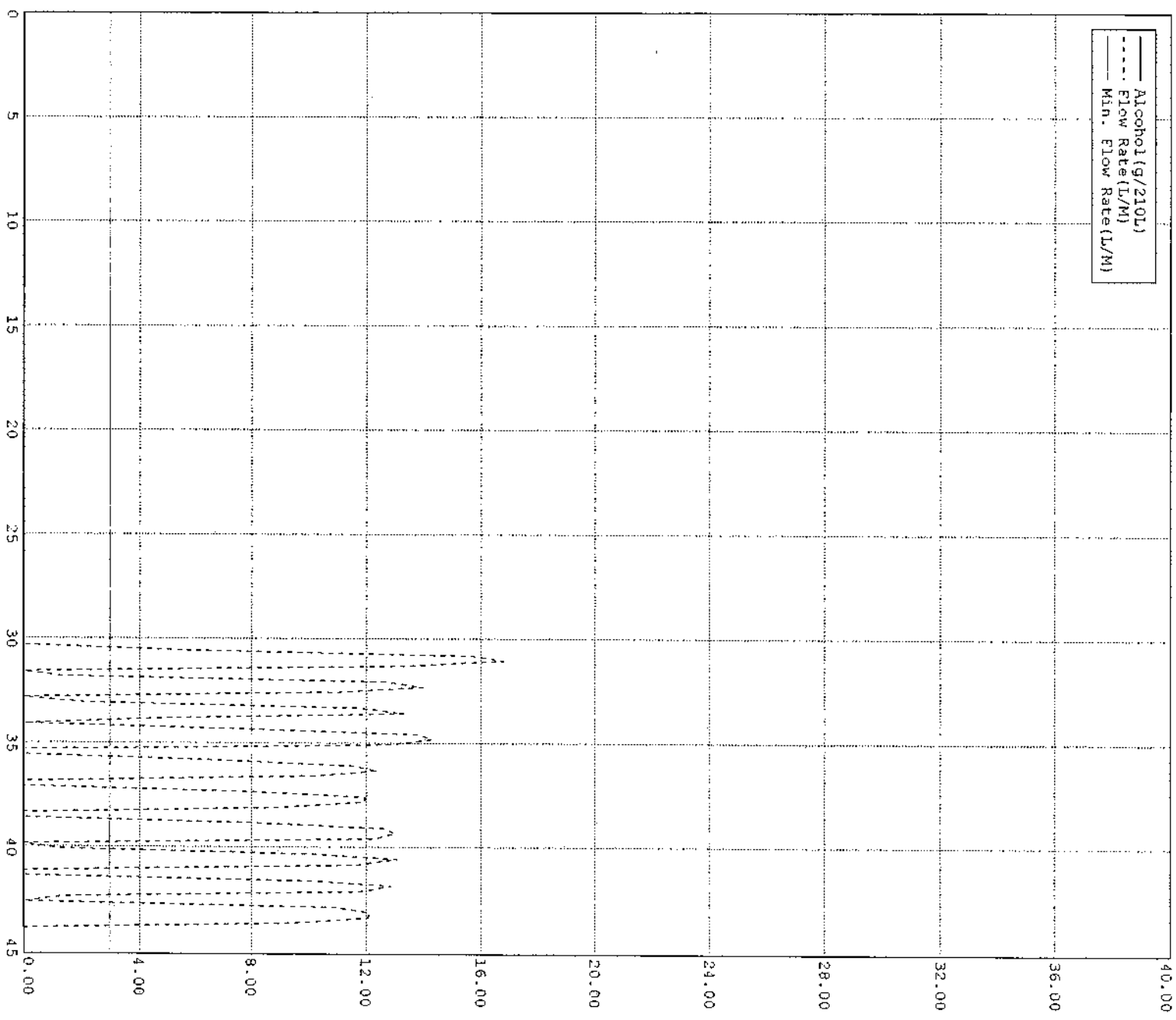
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.09: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	14:31
BLANK TEST	0.000	14:31
INTERNAL STANDARD	VERIFIED	14:31
EXTERNAL STANDARD	0.076	14:31
BLANK TEST	0.000	14:32
SUBJECT SAMPLE	XXX	14:33

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100382

Date: 11/30/2016  
Time: 14:00:41

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

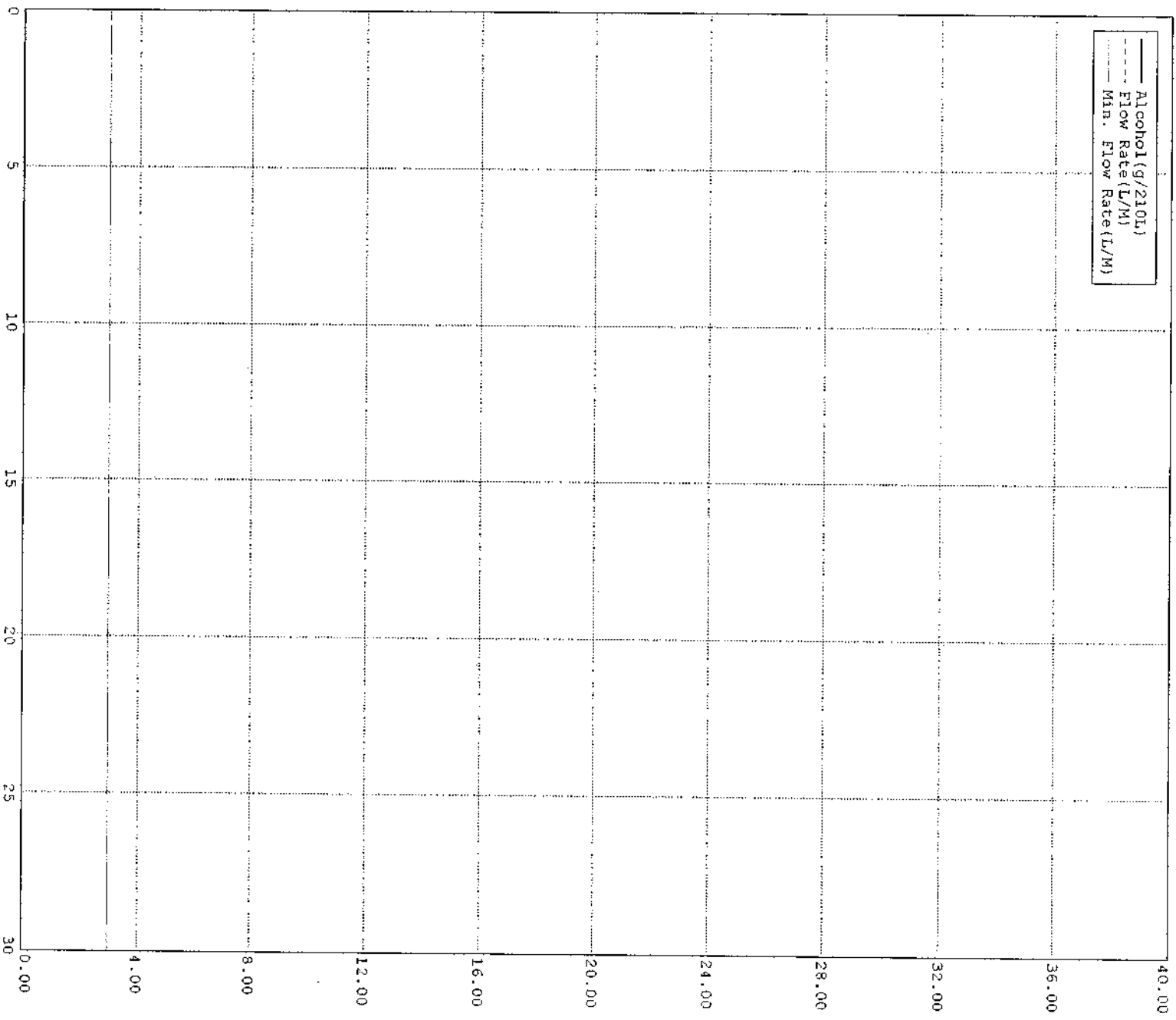
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.12: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	14:02
BLANK TEST	0.000	14:02
INTERNAL STANDARD	VERIFIED	14:02
EXTERNAL STANDARD	0.077	14:02
BLANK TEST	0.000	14:03

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100382

Date: 12/01/2016  
Time: 10:31:44

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.01: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:32
BLANK TEST	0.000	10:33
INTERNAL STANDARD	VERIFIED	10:33
EXTERNAL STANDARD	0.078	10:33
BLANK TEST	0.000	10:34
SUBJECT SAMPLE (Vol=1.97L)	0.000	10:34
BLANK TEST	0.000	10:35
EXTERNAL STANDARD	0.078	10:35
BLANK TEST	0.000	10:36

BMB

