

# 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 100366 Analyst Brandi Barnett Start Date 8/10/16

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 02915020 A2 Exp 03/05/17
- ii. 0.040g/210L Mnf ILMO Lot 02915040 A3 Exp 03/05/17
- iii. 0.080g/210L Mnf Airgas Lot AG608504 Exp 03/25/18
- iv. 0.100g/210L Mnf ILMO Lot 02915100 A1 Exp 03/05/17
- v. 0.200g/210L Mnf Guth Lot 15130 Exp 05/11/17
  - 1. Simulator S/N DR6267 Date Calibrated 03/03/16
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 07/20/17
  - 1. Simulator S/N DR4176 Date Calibrated 03/03/16

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 15220 Level 0.100 Exp 09/28/17
  - 1. Simulator S/N DR4162 Date Calibrated 03/02/16
- ii. Isopropanol - Mnf Guth Lot 15220 Level 0.100 Exp 09/28/17
  - 1. Simulator S/N DR4163 Date Calibrated 03/02/16
- iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 09/28/17
  - 1. Simulator S/N SD1200 Date Calibrated 03/03/16

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 8/11/16

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

Date: 08/10/2016  
Time: 10:03:52

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

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 47.4°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.35 V PASSED  
(1.46 V - 3.42 V)  
Cooler Voltage = 1.99 V PASSED  
(1.10 V - 2.58 V)  
Bias Voltage = 81 V PASSED  
(48 V - 112 V)  
Chopper Freq = 536 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.7 in

PUMP INFO

Flow Rate = 4.667 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  
(0.003 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.101 0.97% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100366  
-----

Date: 08/10/2016

Time: 10:27 AM

Temperatures (°C)

Sample Cell: 48.8°C

Breath Tube: 47.7°C

Current Barometer 29.7 in

Volume (ltr) 1.54

Settings

Lamp: 2.35 V

Bias: 81 V

Cooler: 1.99 V

Chopper: 535 Hz

Voltages (V)

Flow: 1.05 V

Detector: 0.094 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100366  
-----

Date: 03/22/2011  
Time: 11:48:02

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

LOT #: GUTH100  
BOTTLE #: 9380  
EXPIRATION: 12/17/2011

Ca	=	0.1000		
CAL	=	0.985254	0.800	<= CAL < 1.200
b1	=	0.0000	0.0000	<= b1 < 0.0040
b2	=	0.0054	0.0010	<= b2 < 0.0100
b3	=	0.0000	0.0000	<= b3 < 0.0040
Xq	=	0.1000	0.0500	<= Xq < 0.2000
a21	=	1.200050	1.050	<= a21 < 1.300
a31	=	0.503220	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

Date: 08/10/2016  
Time: 10:28:53

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

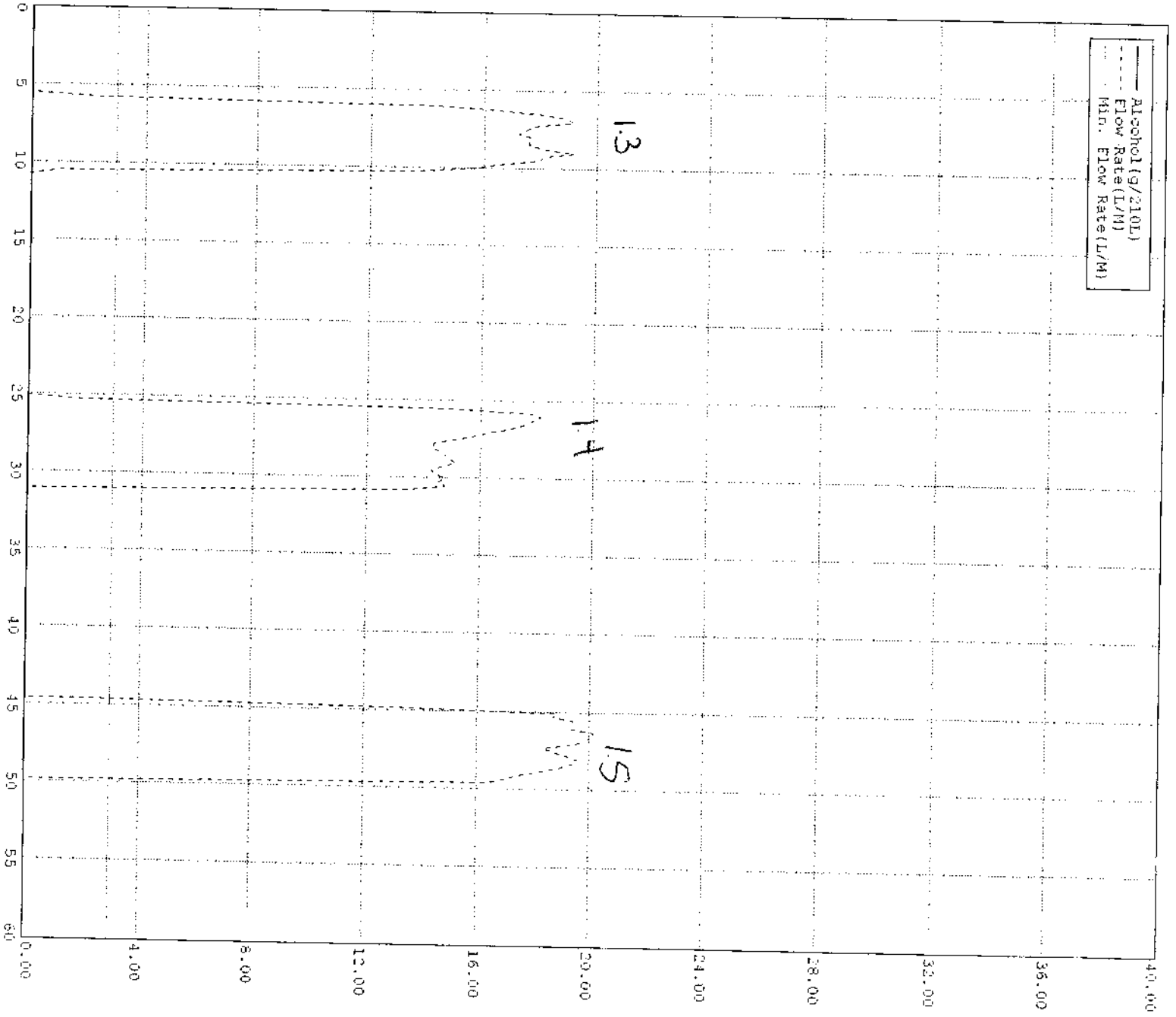
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:29
BLANK TEST	0.000	10:30
INTERNAL STANDARD	VERIFIED	10:30
EXTERNAL STANDARD	0.077	10:30
BLANK TEST	0.000	10:31
SUBJECT SAMPLE (Vol=1.55L)	0.000	10:32
BLANK TEST	0.000	10:33
EXTERNAL STANDARD	0.078	10:33
BLANK TEST	0.000	10:34

BMB



LINEARITY CHECK

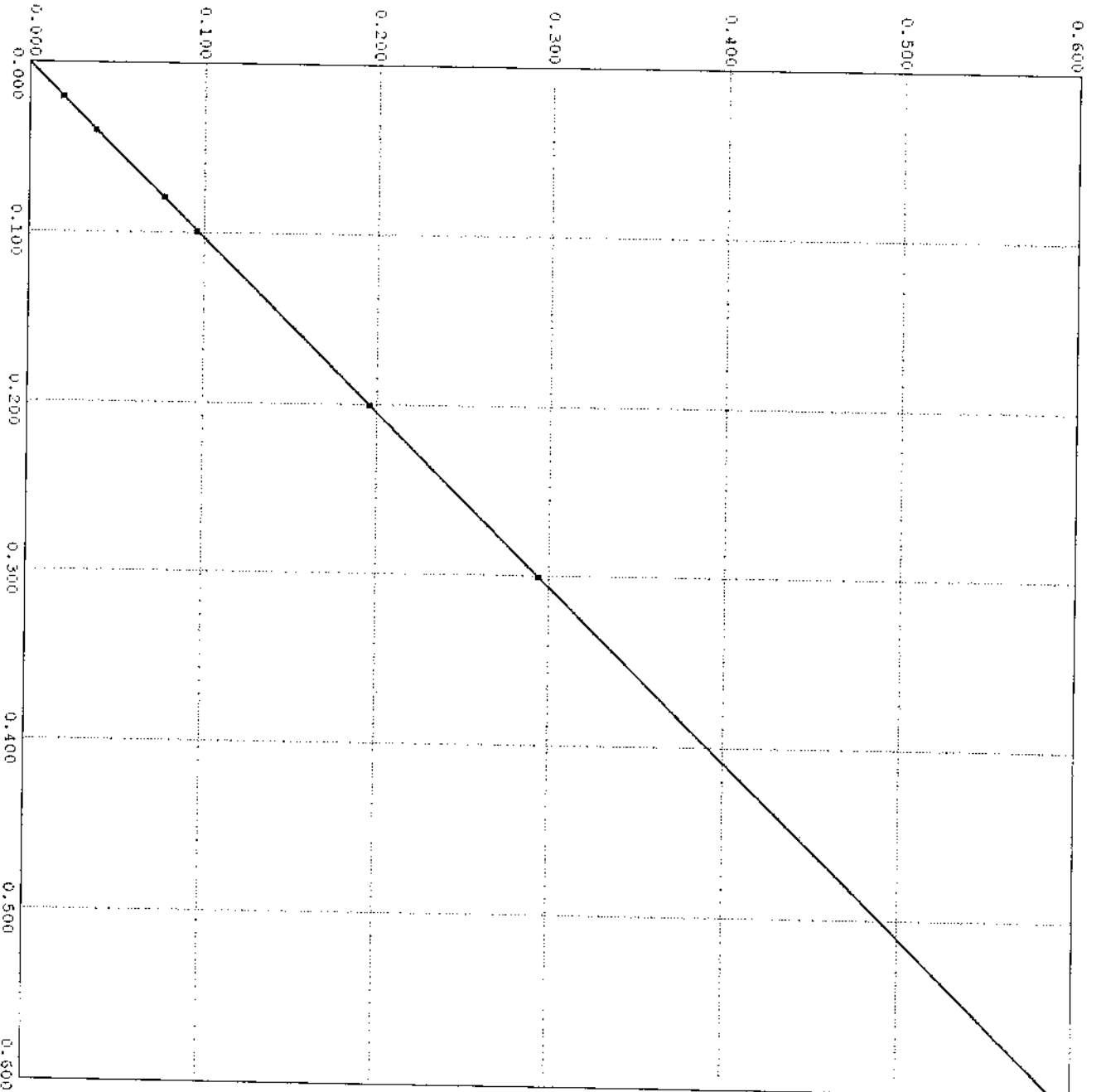
Alaska Department of Public Safety  
DATA MASTER dmt: 100366

Date: 08/10/2016  
Time: 12:57:35

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0198	0.0004
0.040	0.0390	0.0000
0.079	0.0780	0.0000
0.099	0.0968	0.0004
0.200	0.1964	0.0005
0.300	0.2948	0.0004

SLOPE = 0.982587  
R<sup>2</sup> = 0.999991



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100366

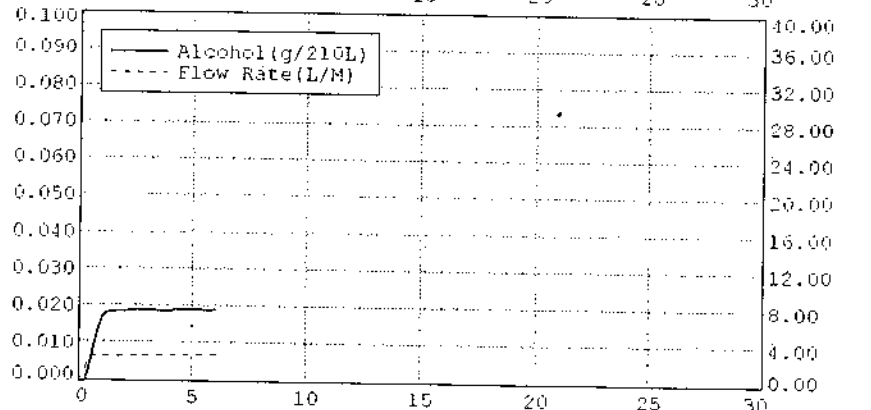
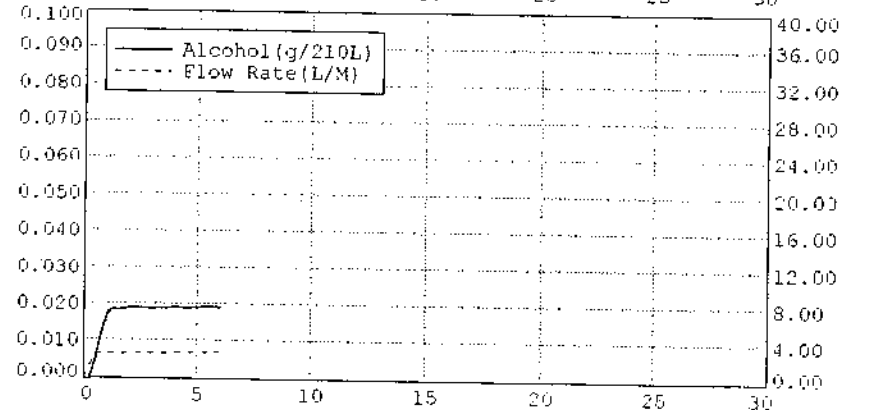
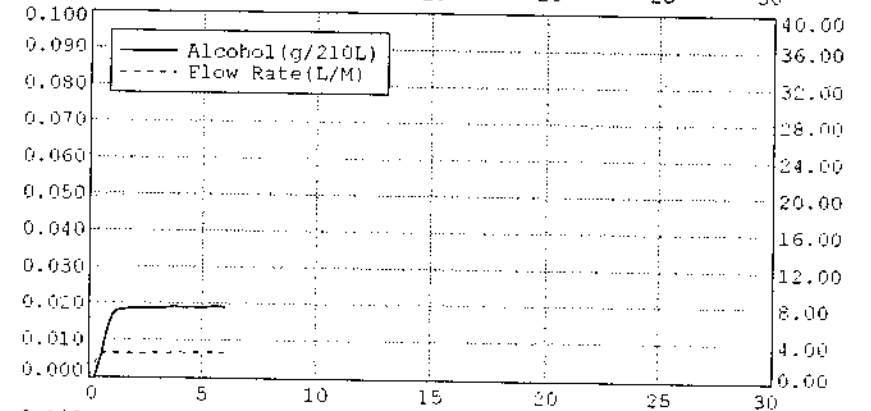
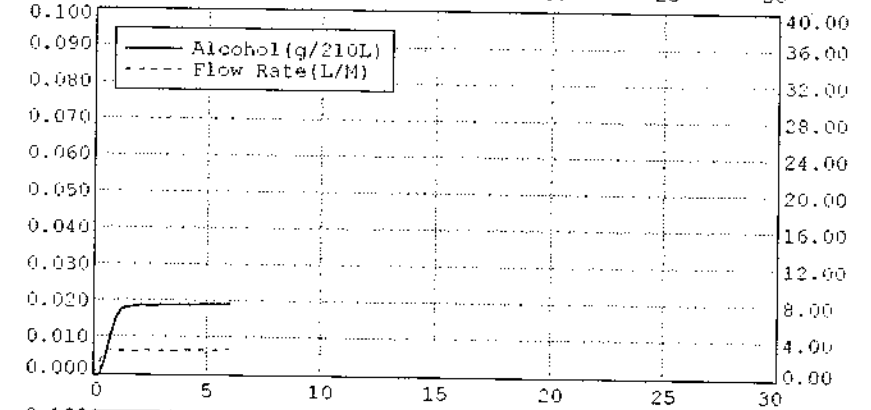
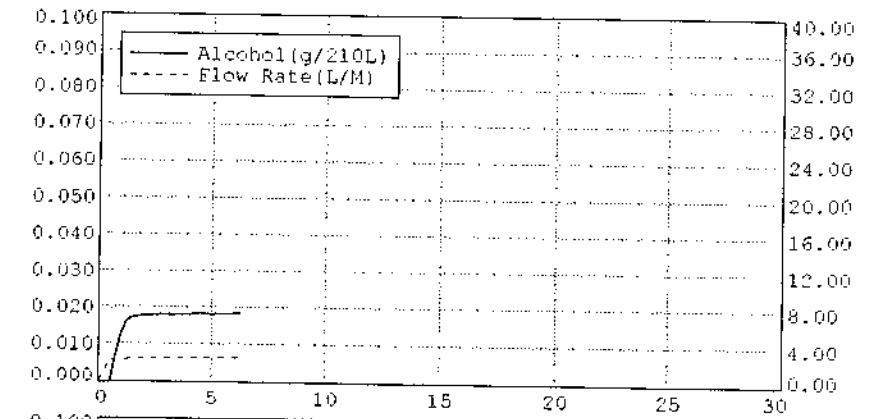
Date: 08/10/2016  
 Time: 12:57:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.72: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 733 psi

BLANK TEST	0.000	12:58
INTERNAL STANDARD	VERIFIED	12:58
EXTERNAL STANDARD	0.019	12:59
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.020	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.020	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.020	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.020	13:03
BLANK TEST	0.000	13:04

Average = 0.0198  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100366

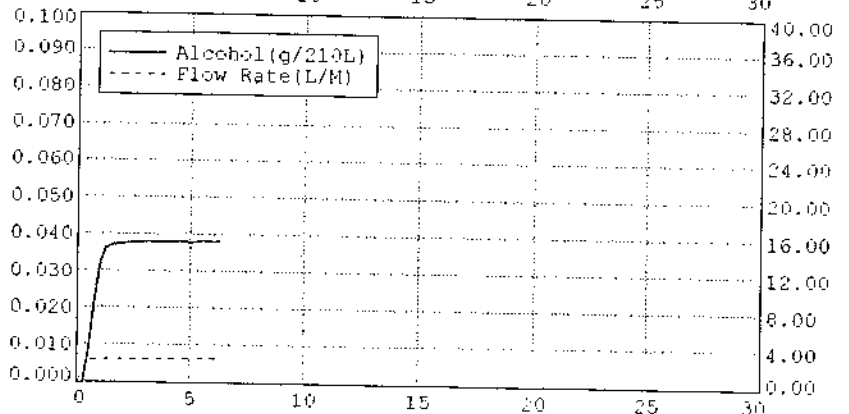
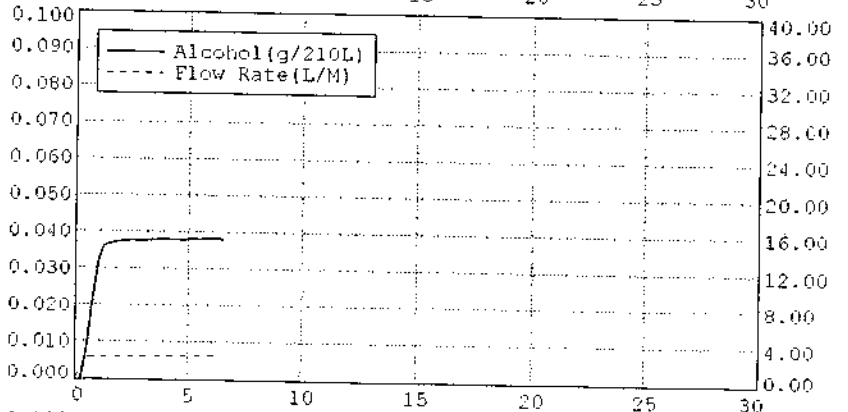
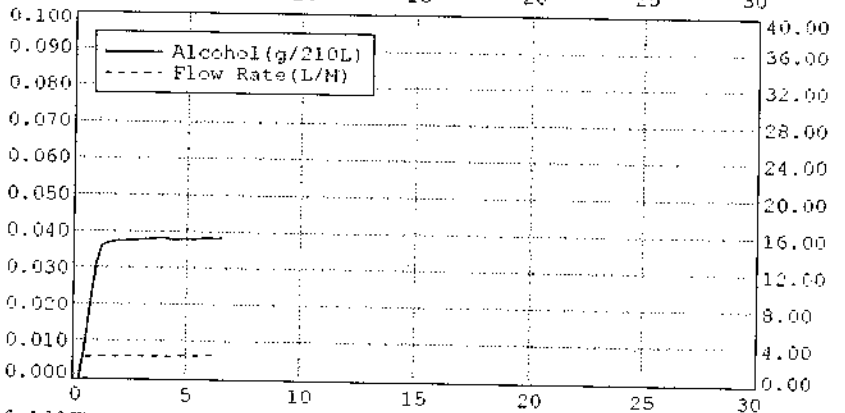
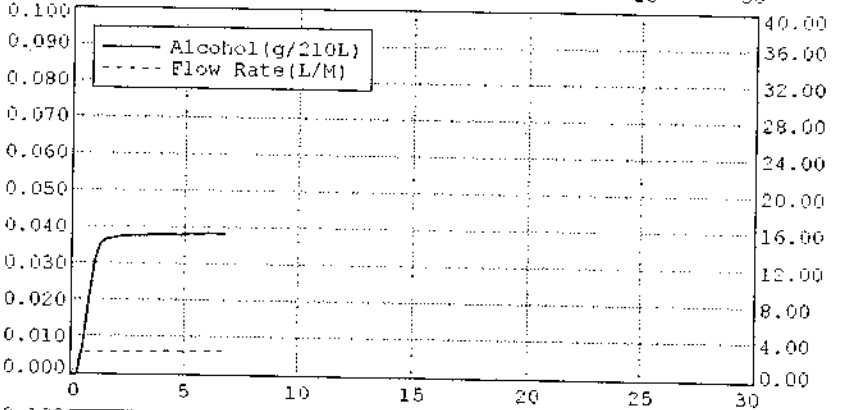
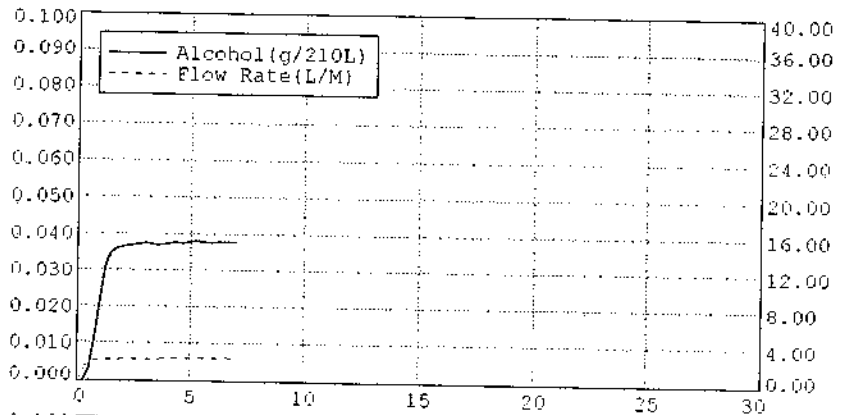
Date: 08/10/2016  
 Time: 13:05:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.73: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 204 psi

BLANK TEST	0.000	13:06
INTERNAL STANDARD	VERIFIED	13:06
EXTERNAL STANDARD	0.039	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.039	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.039	13:09
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.039	13:10
BLANK TEST	0.000	13:11
EXTERNAL STANDARD	0.039	13:11
BLANK TEST	0.000	13:12

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100366

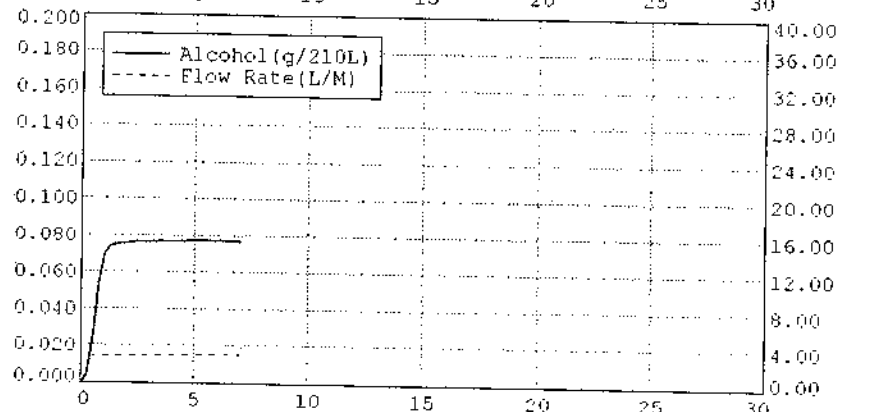
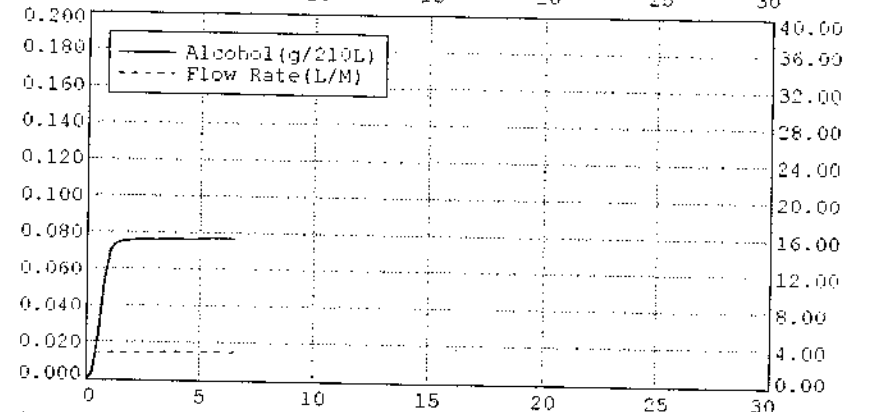
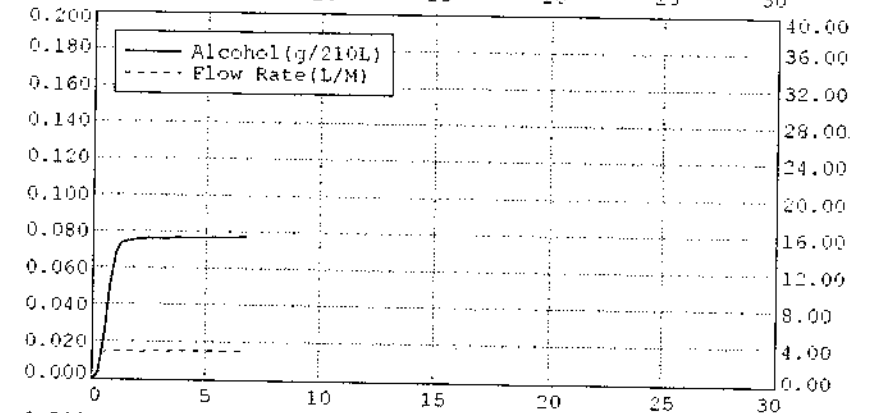
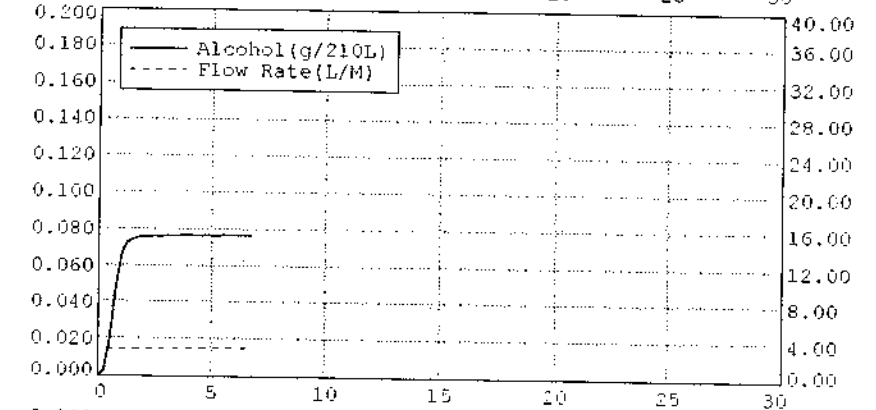
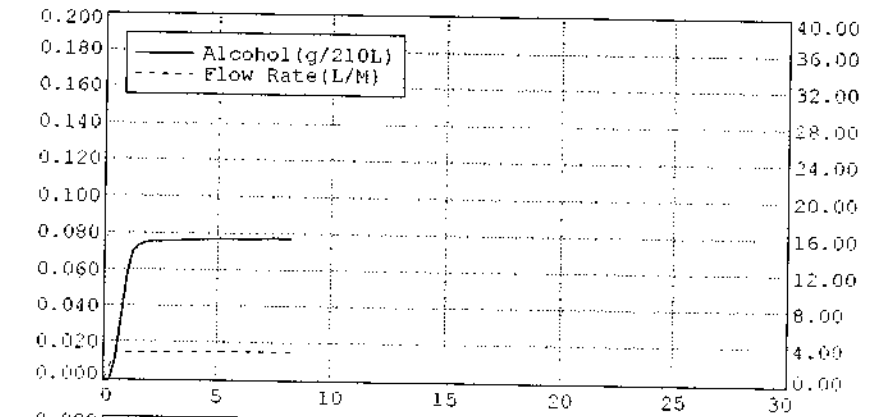
Date: 08/10/2016  
 Time: 13:16:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.72: 0.079  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 933 psi

BLANK TEST	0.000	13:17
INTERNAL STANDARD	VERIFIED	13:17
EXTERNAL STANDARD	0.078	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.078	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.078	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.078	13:21
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.078	13:22
BLANK TEST	0.000	13:23

Average = 0.0780  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100366

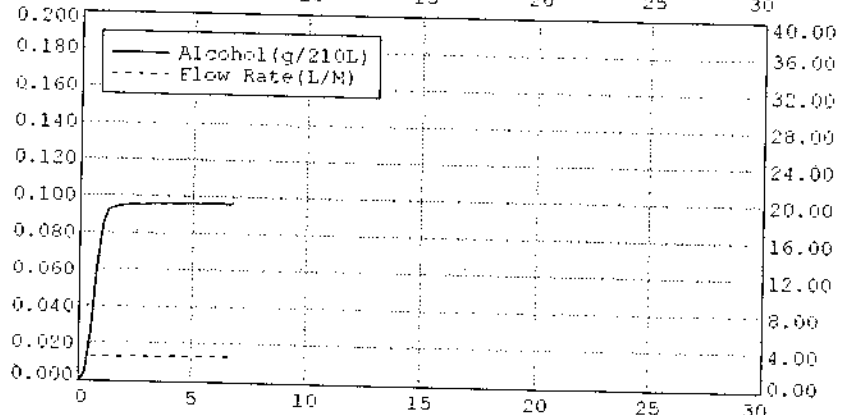
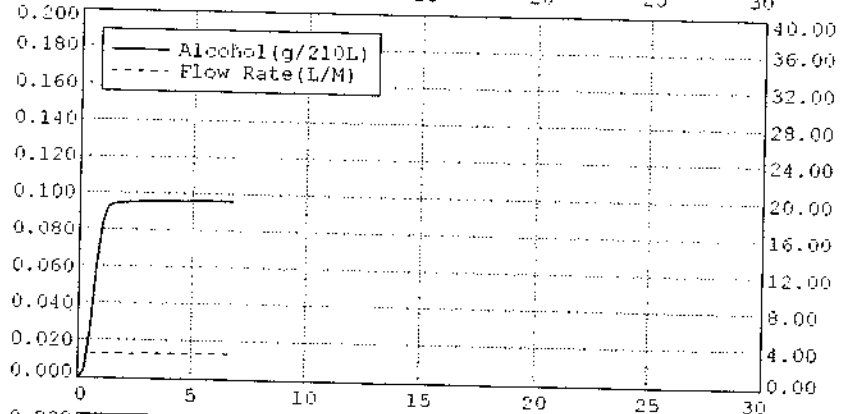
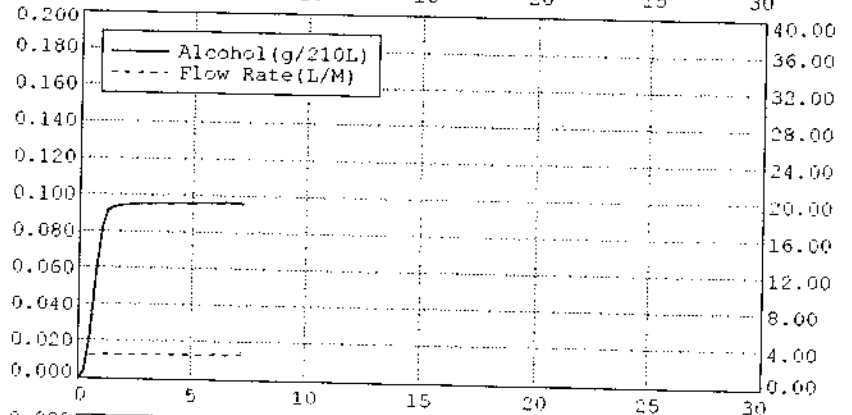
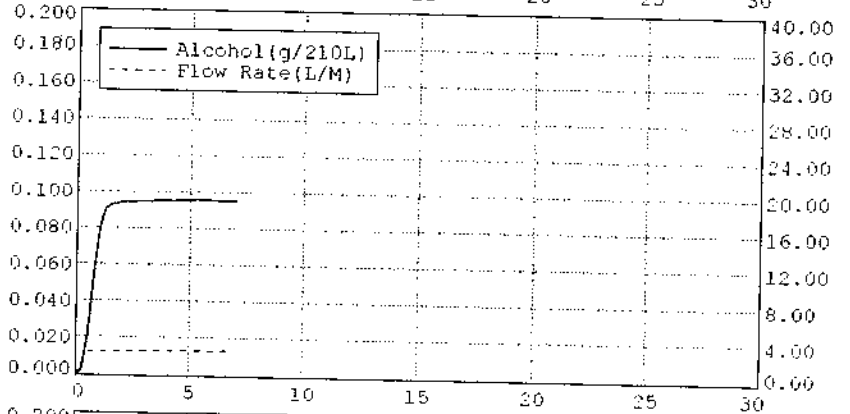
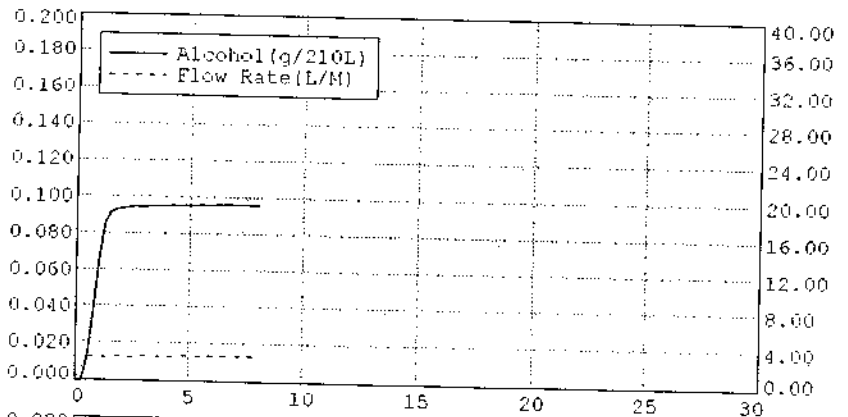
Date: 08/10/2016  
 Time: 13:39:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.73: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 438 psi

BLANK TEST	0.000	13:40
INTERNAL STANDARD	VERIFIED	13:40
EXTERNAL STANDARD	0.097	13:41
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.096	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.097	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.097	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.097	13:45
BLANK TEST	0.000	13:46

Average = 0.0968  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100366

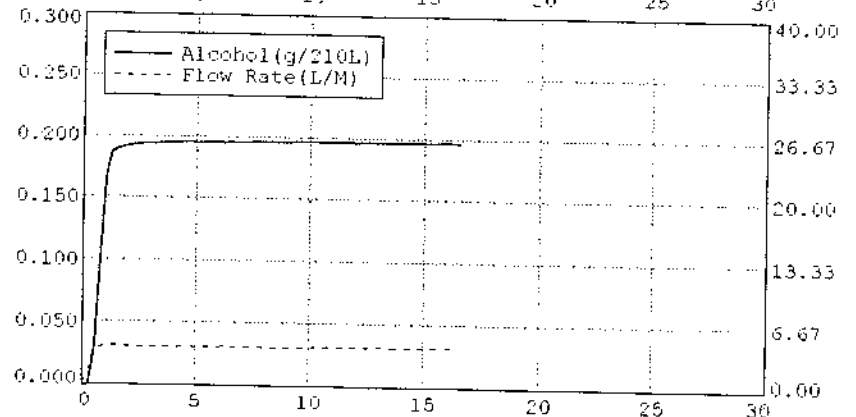
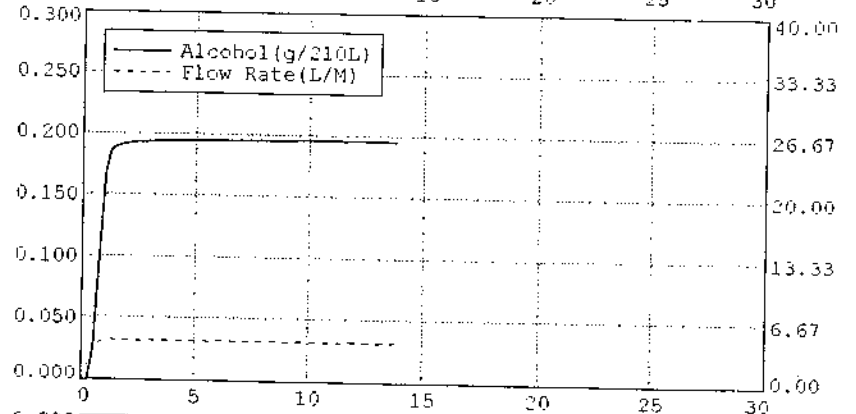
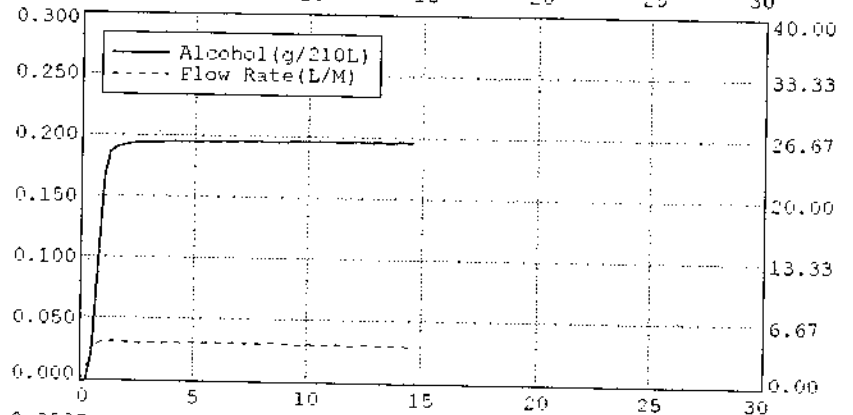
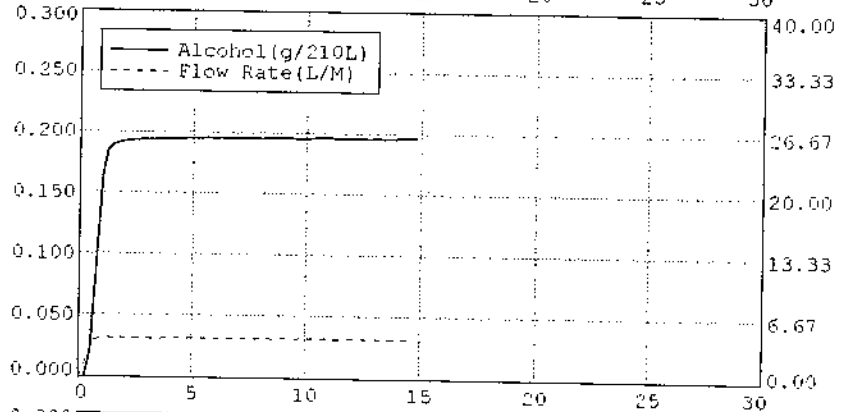
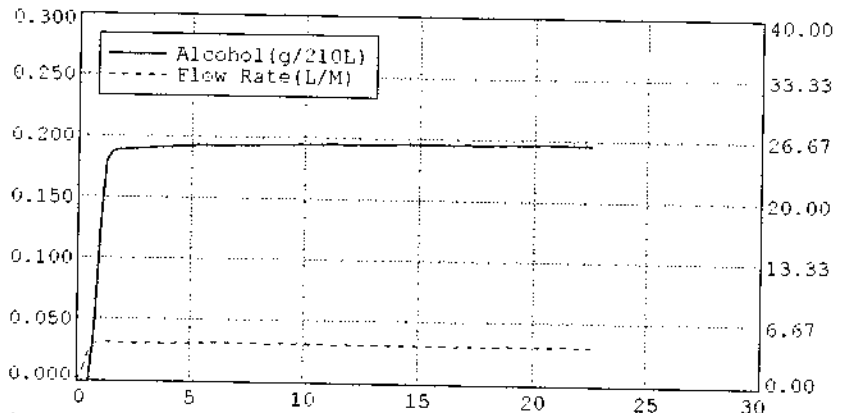
Date: 08/10/2016  
 Time: 13:50:12

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:51
INTERNAL STANDARD	VERIFIED	13:51
EXTERNAL STANDARD	0.197	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.196	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.196	13:54
BLANK TEST	0.000	13:55
EXTERNAL STANDARD	0.196	13:55
BLANK TEST	0.000	13:56
EXTERNAL STANDARD	0.197	13:57
BLANK TEST	0.000	13:58

Average = 0.1964  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

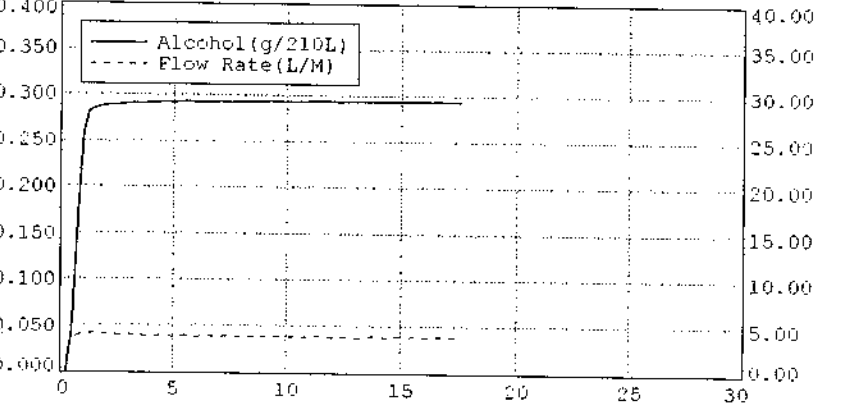
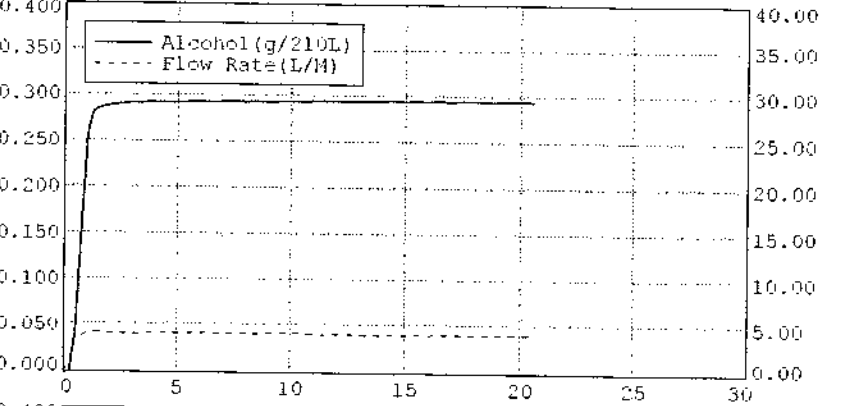
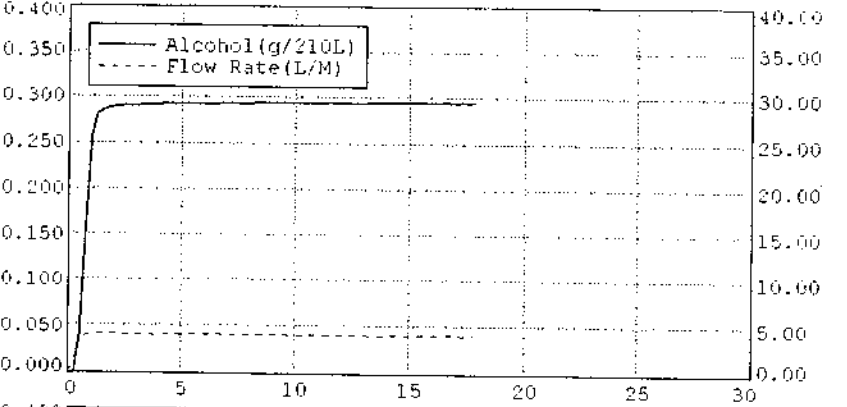
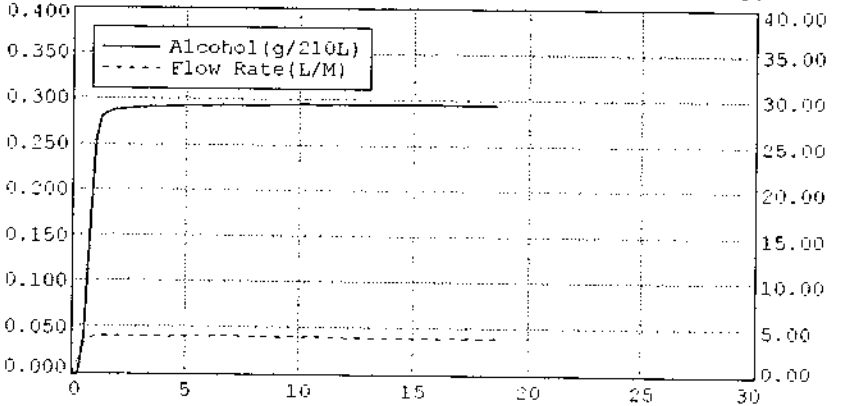
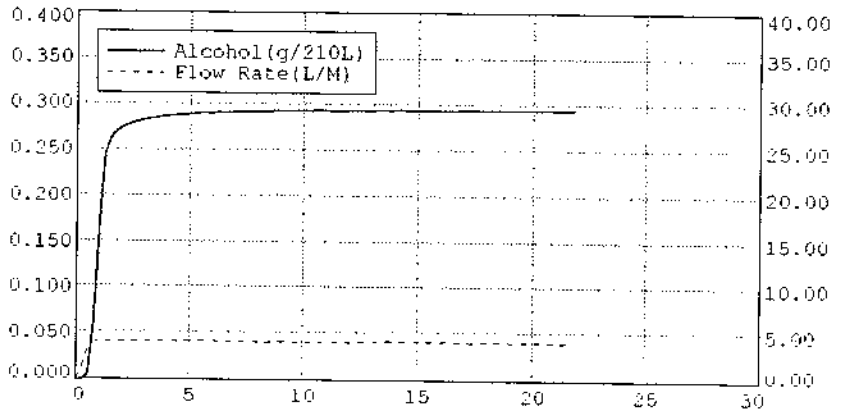
Date: 08/10/2016  
Time: 14:01:34

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	14:02
INTERNAL STANDARD	VERIFIED	14:02
EXTERNAL STANDARD	0.295	14:03
BLANK TEST	0.000	14:04
EXTERNAL STANDARD	0.295	14:04
BLANK TEST	0.000	14:05
EXTERNAL STANDARD	0.295	14:06
BLANK TEST	0.000	14:06
EXTERNAL STANDARD	0.295	14:07
BLANK TEST	0.000	14:08
EXTERNAL STANDARD	0.294	14:08
BLANK TEST	0.000	14:09

Average = 0.2948  
Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100366

Date: 08/11/2016  
Time: 09:13:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

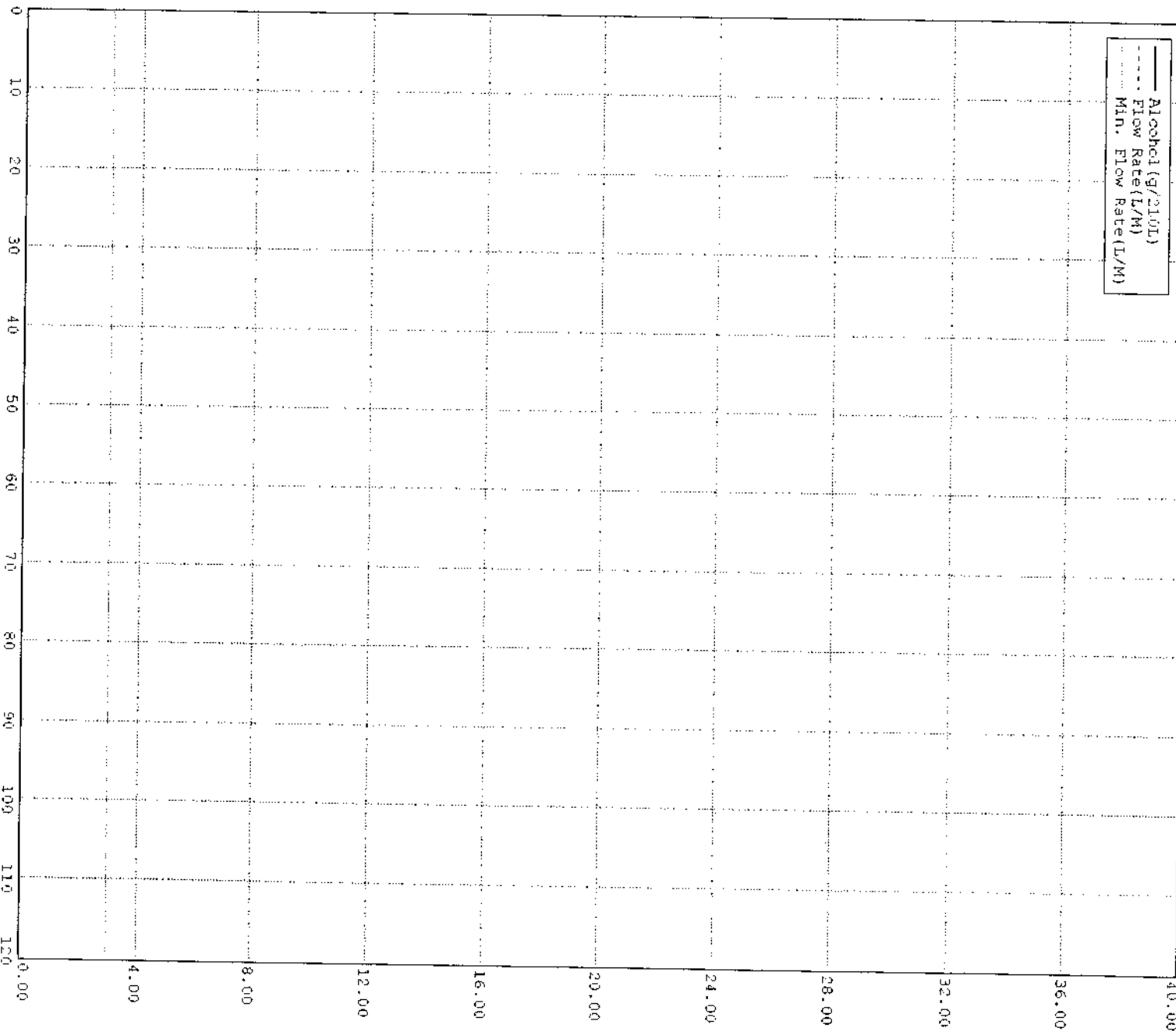
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:14
BLANK TEST	0.000	09:14
INTERNAL STANDARD	VERIFIED	09:14
EXTERNAL STANDARD	0.077	09:14
BLANK TEST	0.000	09:15
SUBJECT SAMPLE	INCOMPLETE	09:17

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

Date: 08/11/2016  
Time: 09:36:11

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

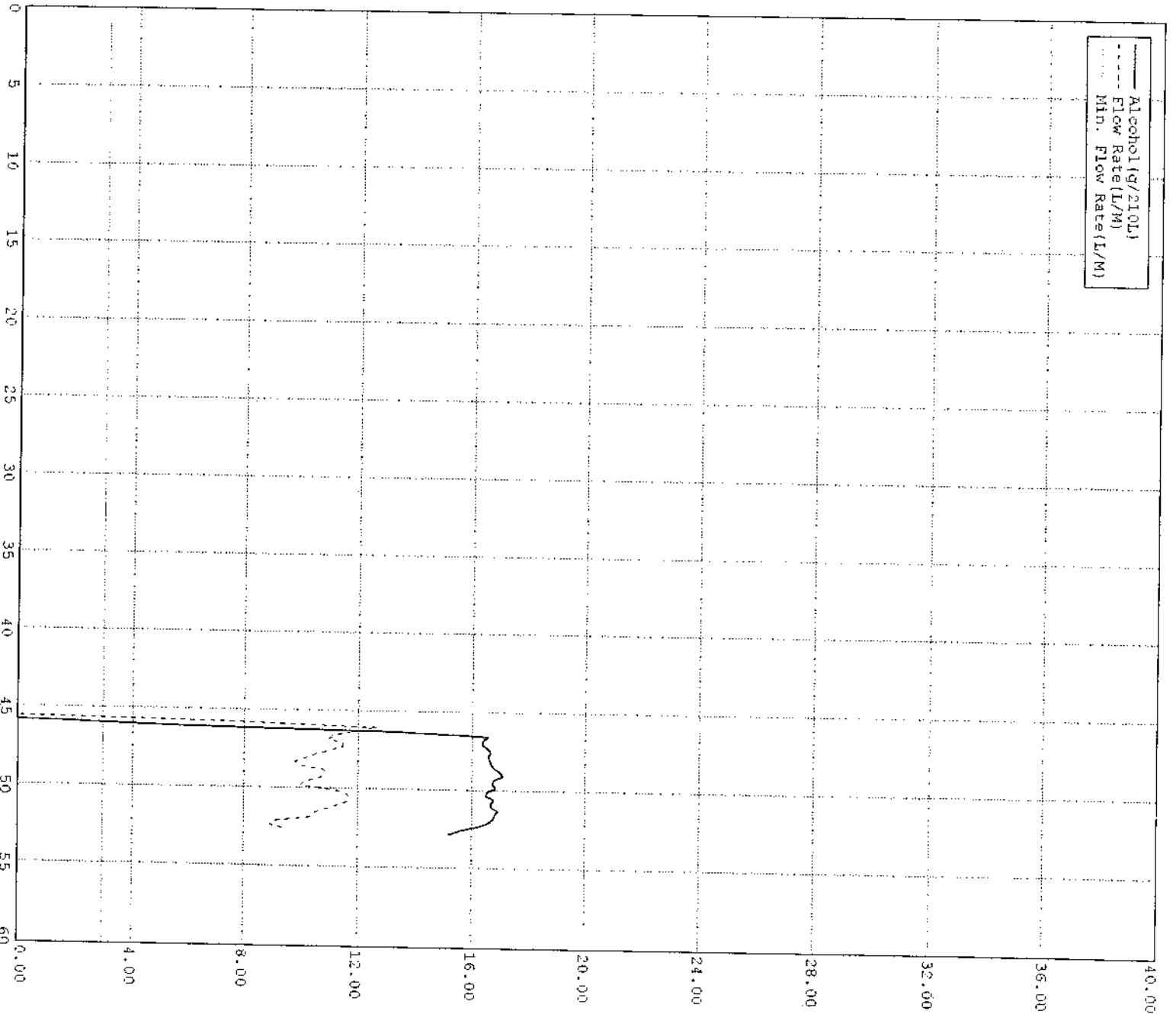
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:56
BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.078	09:57
BLANK TEST	0.000	09:58
SUBJECT SAMPLE	INVALID	09:59

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

Date: 08/11/2016  
Time: 10:43:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

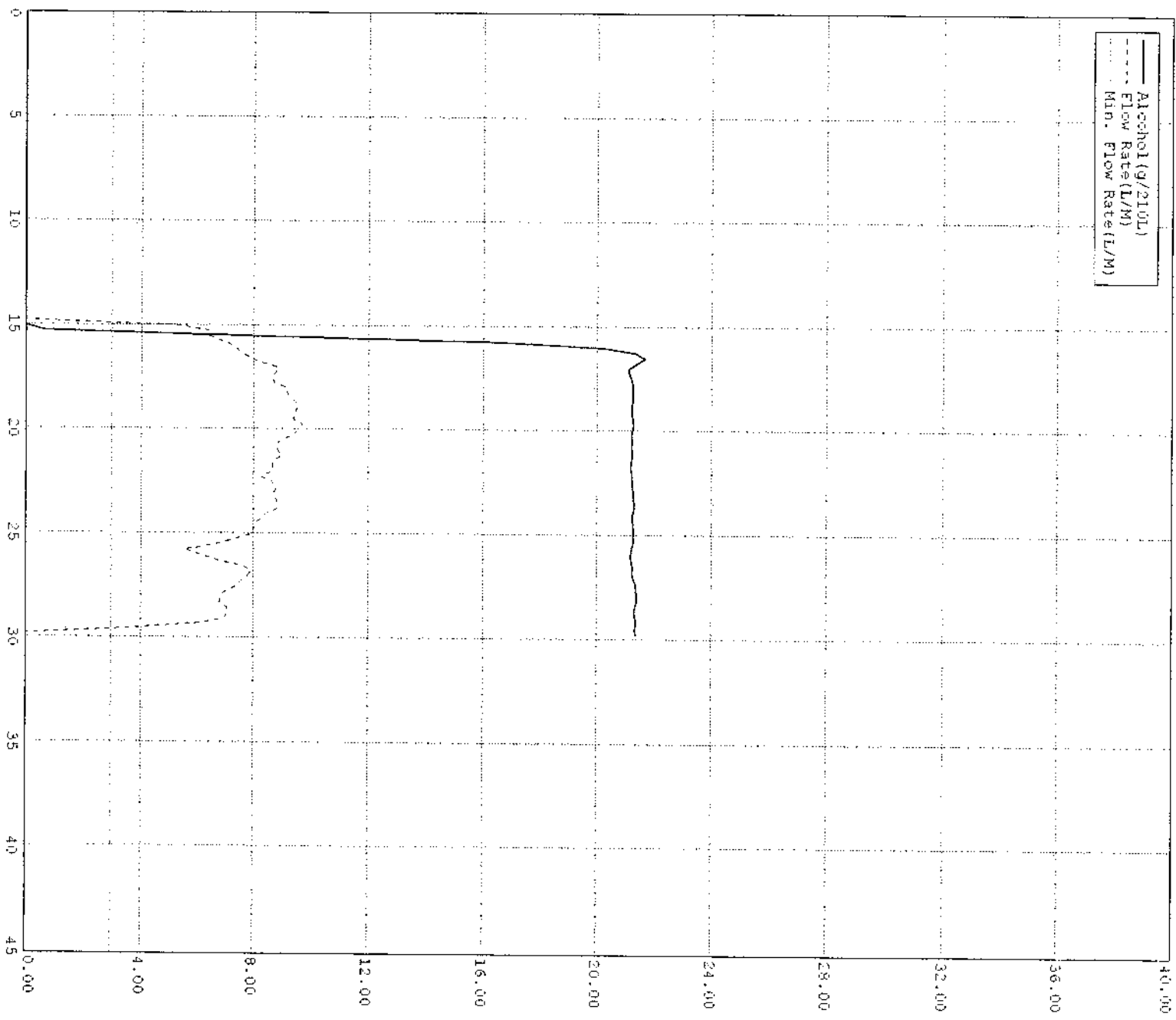
DEPT/AGENCY:  
INTERFERENCE ACETONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29-71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:44
BLANK TEST	0.000	10:44
INTERNAL STANDARD	VERIFIED	10:44
Xq = 0.101 (0.97%)		
EXTERNAL STANDARD	0.078	10:45
X[1] = 0.0780 (0.0005)	(0.0026)	
BLANK TEST	0.000	10:46
SUBJECT SAMPLE	XXX	10:46
X[1] = 0.1072 (-0.0182)	(0.0004)	

Interference Detected

*BRMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

Date: 08/11/2016  
Time: 10:33:51

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

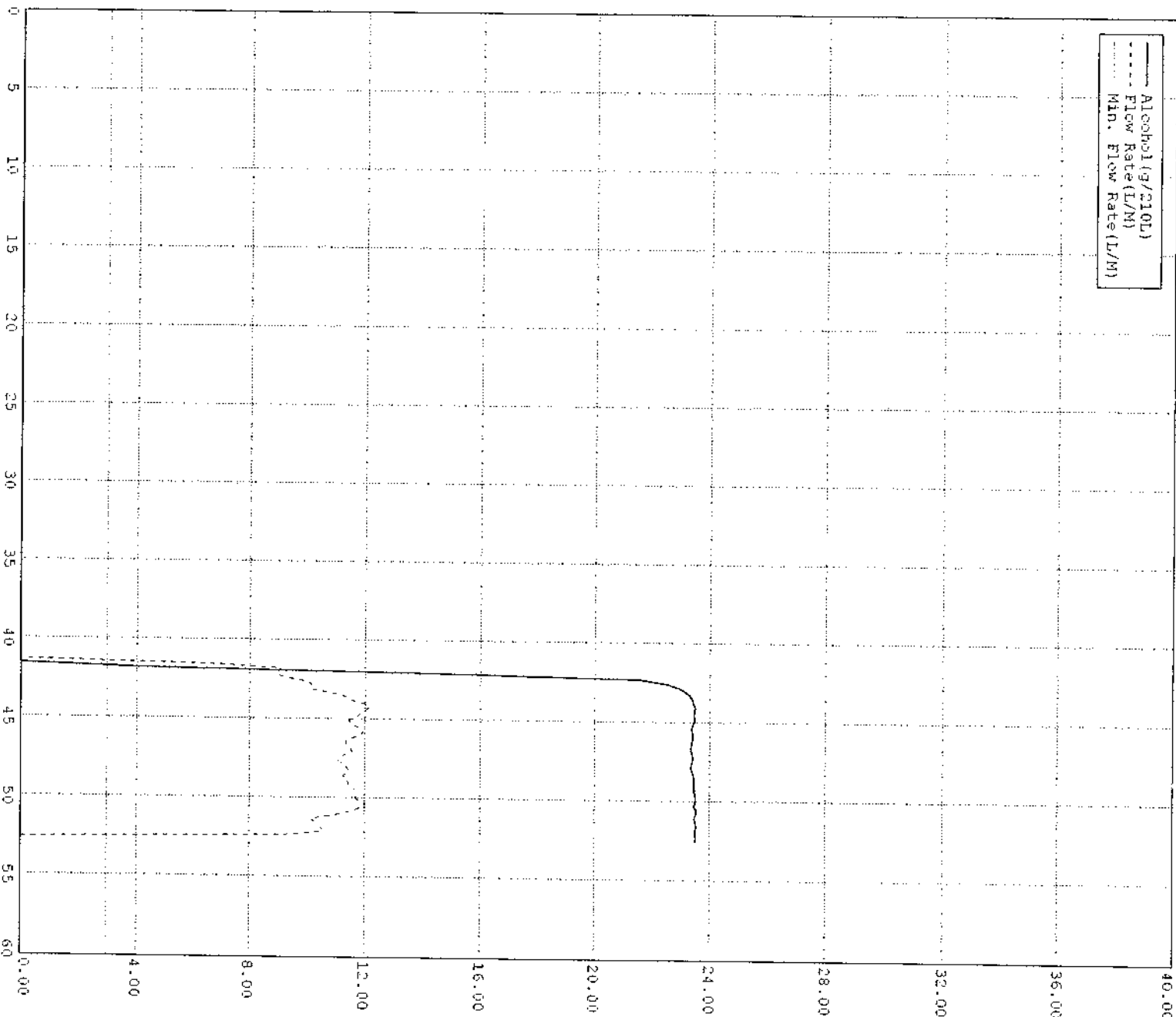
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:35
BLANK TEST	0.000	10:35
INTERNAL STANDARD	VERIFIED	10:36
Xq = 0.100 (0.44%)		
EXTERNAL STANDARD	0.078	10:36
X[1] = 0.0775 (0.0004)	0.0029)	
BLANK TEST	0.000	10:37
SUBJECT SAMPLE	XXX	10:38
X[1] = 0.1175 (-0.0233)	(0.0013)	

Interference Detected

*Handwritten signature: BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100366

Date: 08/11/2016  
Time: 13:23:55

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

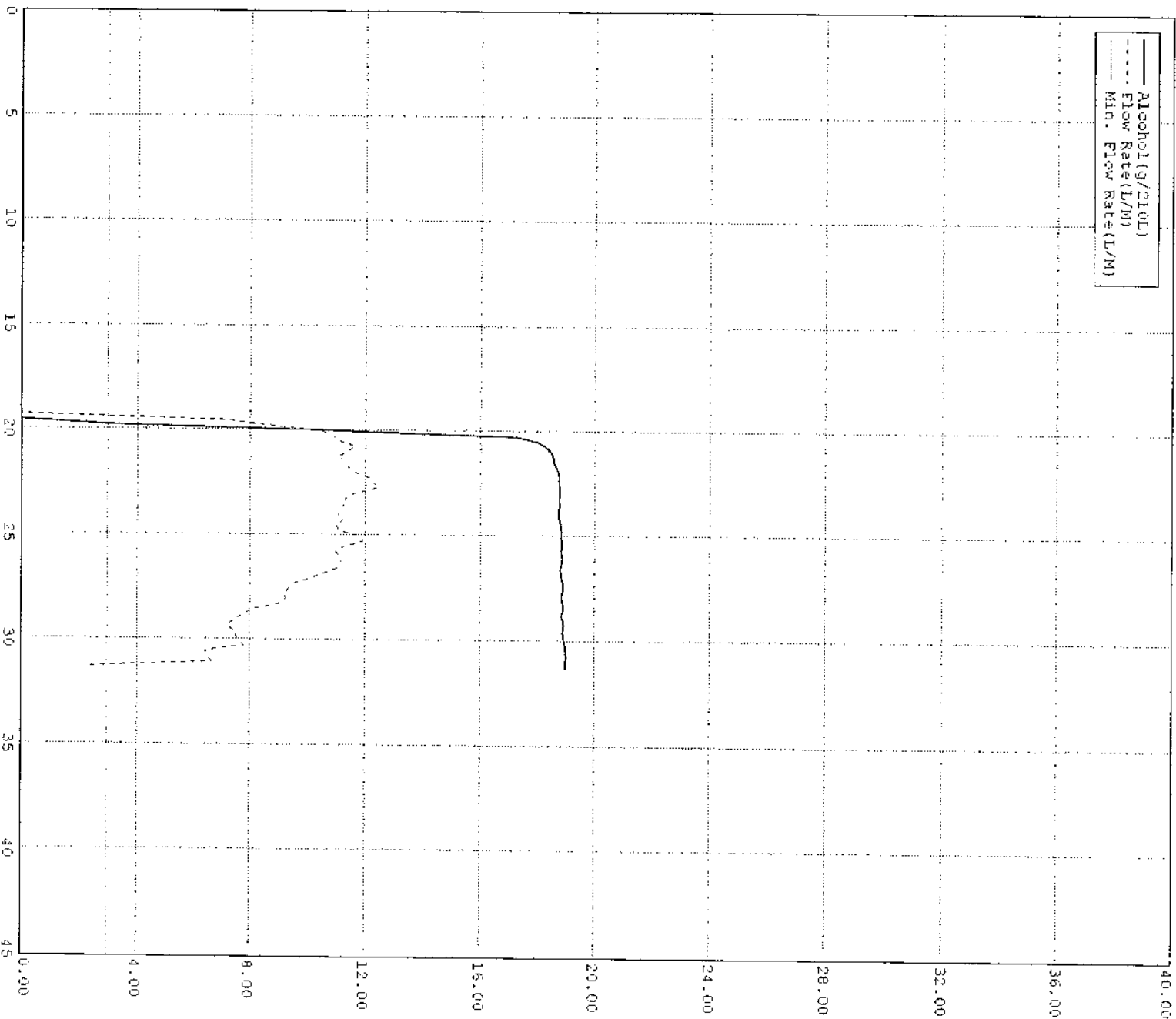
DEPT/AGENCY:  
INTERFERENCE NEGATIVE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.70: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:28
BLANK TEST	0.000	13:28
INTERNAL STANDARD	VERIFIED	13:29
X <sub>q</sub> = 0.101 (1.40%)		
EXTERNAL STANDARD	0.078	13:29
X[1] = 0.0780 (0.0004) (0.0018)		
BLANK TEST	0.000	13:30
SUBJECT SAMPLE (Vol=1.97L)	0.095	13:30
X[1] = 0.0953 (0.0007) (-0.0006)		
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.078	13:32
X[1] = 0.0775 (0.0006) (0.0016)		
BLANK TEST	0.000	13:33

Filter 2 Avg: 0.0665  
Filter 3 Avg: 0.0022  
BMB  
8/11/16

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100366

Date: 08/11/2016  
Time: 10:07:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

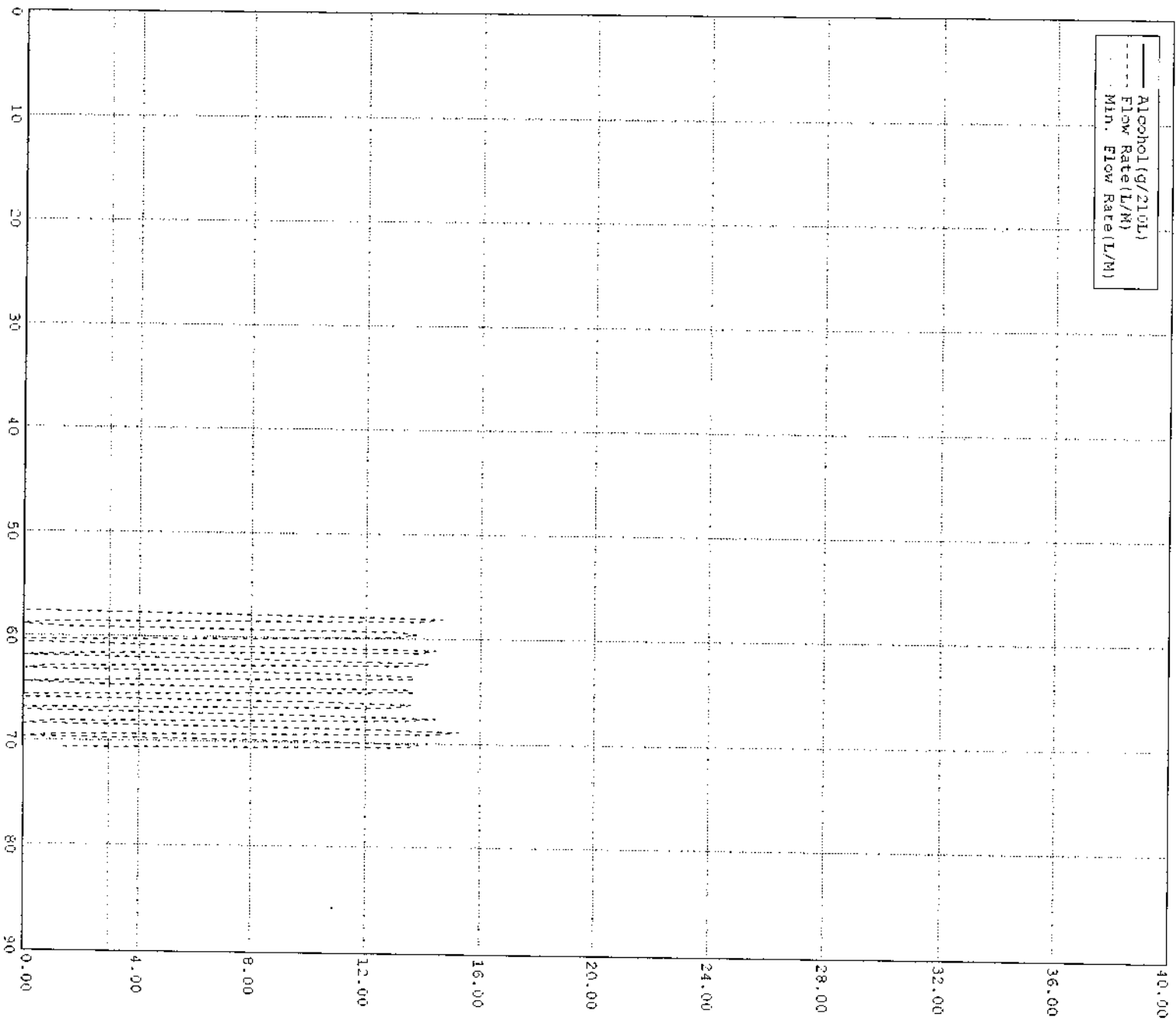
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
IOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:09
BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.078	10:09
BLANK TEST	0.000	10:10
SUBJECT SAMPLE	XXX	10:11

Maximum Attempts Exceeded

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100365

Date: 08/11/2016  
Time: 10:19:45

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

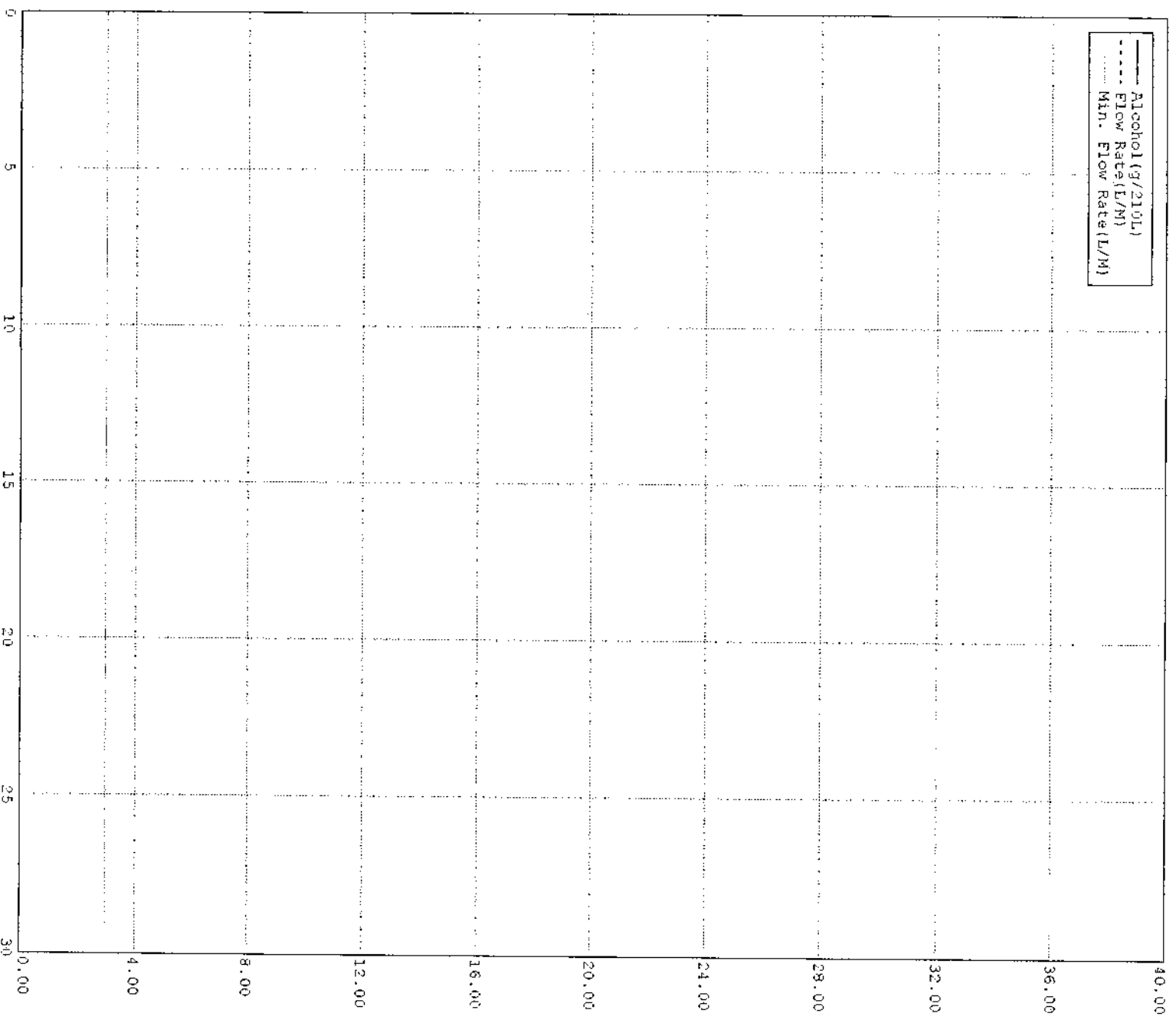
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK  
BLANK TEST PASSED 10:20  
INTERNAL STANDARD VERIFIED 10:20  
EXTERNAL STANDARD 0.078 10:21  
BLANK TEST 0.000 10:22

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100366

Date: 08/11/2016  
Time: 13:50:14

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 29.71: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:51
BLANK TEST	0.000	13:51
INTERNAL STANDARD	VERIFIED	13:51
EXTERNAL STANDARD	0.078	13:51
BLANK TEST	0.000	13:52
SUBJECT SAMPLE (Vol=1.99L)	0.000	13:53
BLANK TEST	0.000	13:54
EXTERNAL STANDARD	0.079	13:54
BLANK TEST	0.000	13:55

*BRMB*

