

# 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 100390 Analyst Brandi Barnett Start Date 4/17/19

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 Airgas Lot AG005804 Exp 2/27/20

ii. 0.040g/210L Mnf Airgas Lot AG733403 Exp 11/30/19 *BMB*

iii. 0.080g/210L Mnf Airgas Lot AG026101 Exp 4/18/20 *09/18/20*

iv. 0.100g/210L Mnf Airgas Lot AG805903 Exp 2/28/20

v. 0.200g/210L Mnf Guth Lot 17350 *BMB* 17340 Exp 10/9/19

1. Simulator S/N DR4177 Date Calibrated 6/4/18

vi. 0.300g/210L Mnf Guth Lot 17350 Exp 10/11/19

1. Simulator S/N DR6267 Date Calibrated 6/4/18

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20

1. Simulator S/N SD1198 Date Calibrated 03/16/19 *BMB* 3/16/19 5/2/19

ii. Isopropanol - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20

1. Simulator S/N DR4176 Date Calibrated 6/4/18

iii. Negative Control - Mnf Guth Lot 18070 Level 0.100 Exp 2/26/20

1. Simulator S/N DR4163 Date Calibrated 6/4/18

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 4/19/19

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100390  
-----

Date: 04/17/2019  
Time: 09:35:38

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

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 46.8°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.62 V PASSED  
(0.99 V - 2.31 V)  
Cooler Voltage = 1.54 V PASSED  
(0.96 V - 2.24 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 549 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.3 in

PUMP INFO

Flow Rate = 4.850 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.003 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 PASSED  
Xq = 0.096 0.46% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100390  
-----

Date: 04/17/2019  
Time: 9:43 AM

Temperatures (°C)

Sample Cell: 48.9°C  
Breath Tube: 47.4°C

Current Barometer 29.3 in  
Volume (Ltr) 1.50

Settings

Lamp: 1.68 V  
Bias: 80 V  
Cooler: 1.57 V  
Chopper: 540 Hz

Voltages (V)

Flow: 1.06 V  
Detector: 0.041 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100390  
-----

Date: 03/10/2011  
Time: 07:44:47

Ca = 0.1000  
CAL = 0.993918    0.800 <= CAL < 1.200  
b1 = 0.0005    0.0000 <= b1 < 0.0040  
b2 = 0.0038    0.0010 <= b2 < 0.0100  
b3 = 0.0003    0.0000 <= b3 < 0.0040  
Xq = 0.0958    0.0500 <= Xq < 0.2000  
a21 = 1.168537    1.050 <= a21 < 1.300  
a31 = 0.503509    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/17/2019  
Time: 09:44:46

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

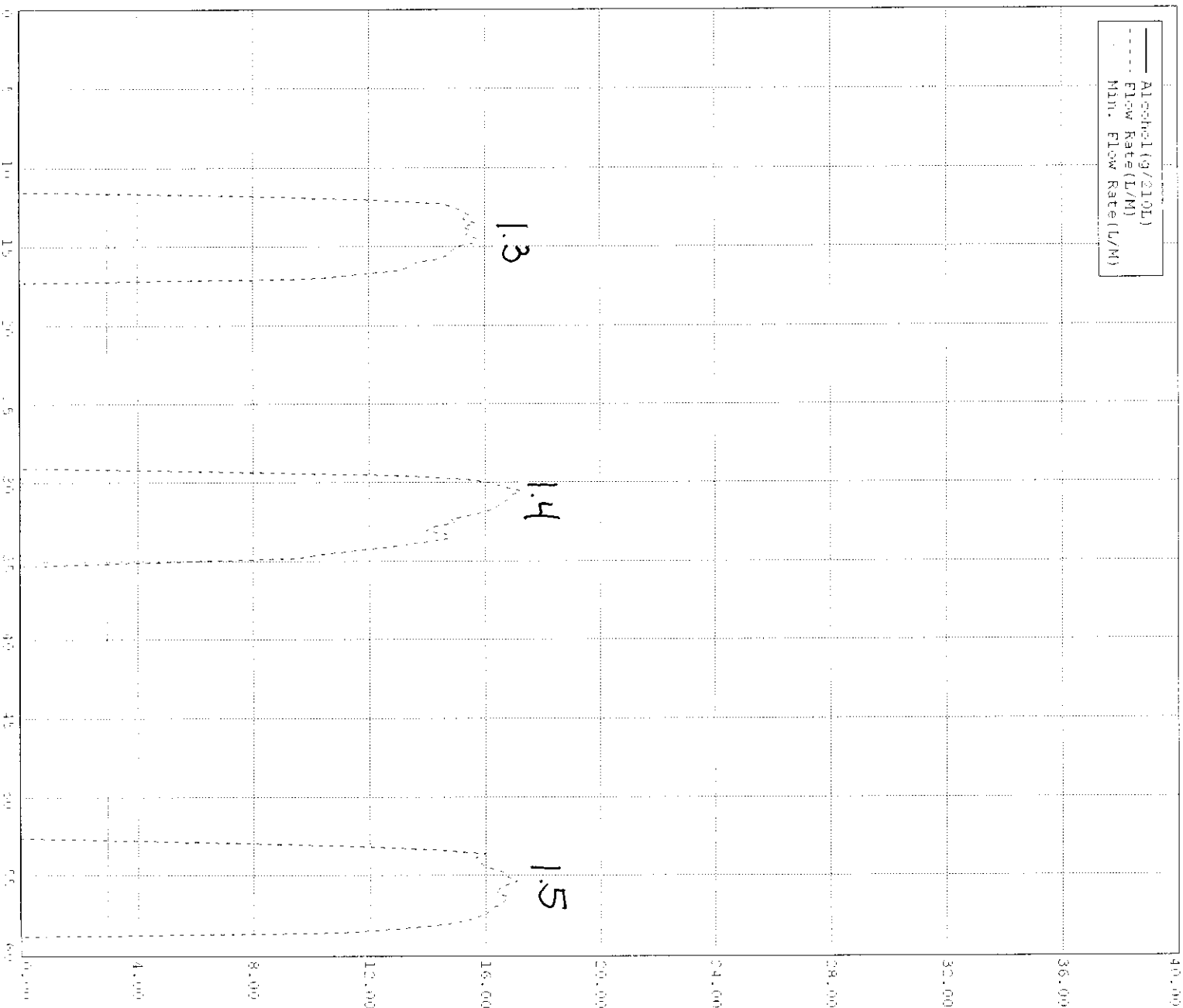
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: AG826101  
EXPIRATION: 09/18/2020

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	09:46
BLANK TEST	0.000	09:46
INTERNAL STANDARD	VERIFIED	09:46
EXTERNAL STANDARD	0.079	09:46
BLANK TEST	0.000	09:47
SUBJECT SAMPLE (Vol=1.52L)	0.000	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.079	09:49
BLANK TEST	0.000	09:50

BMB



LINEARITY CHECK

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

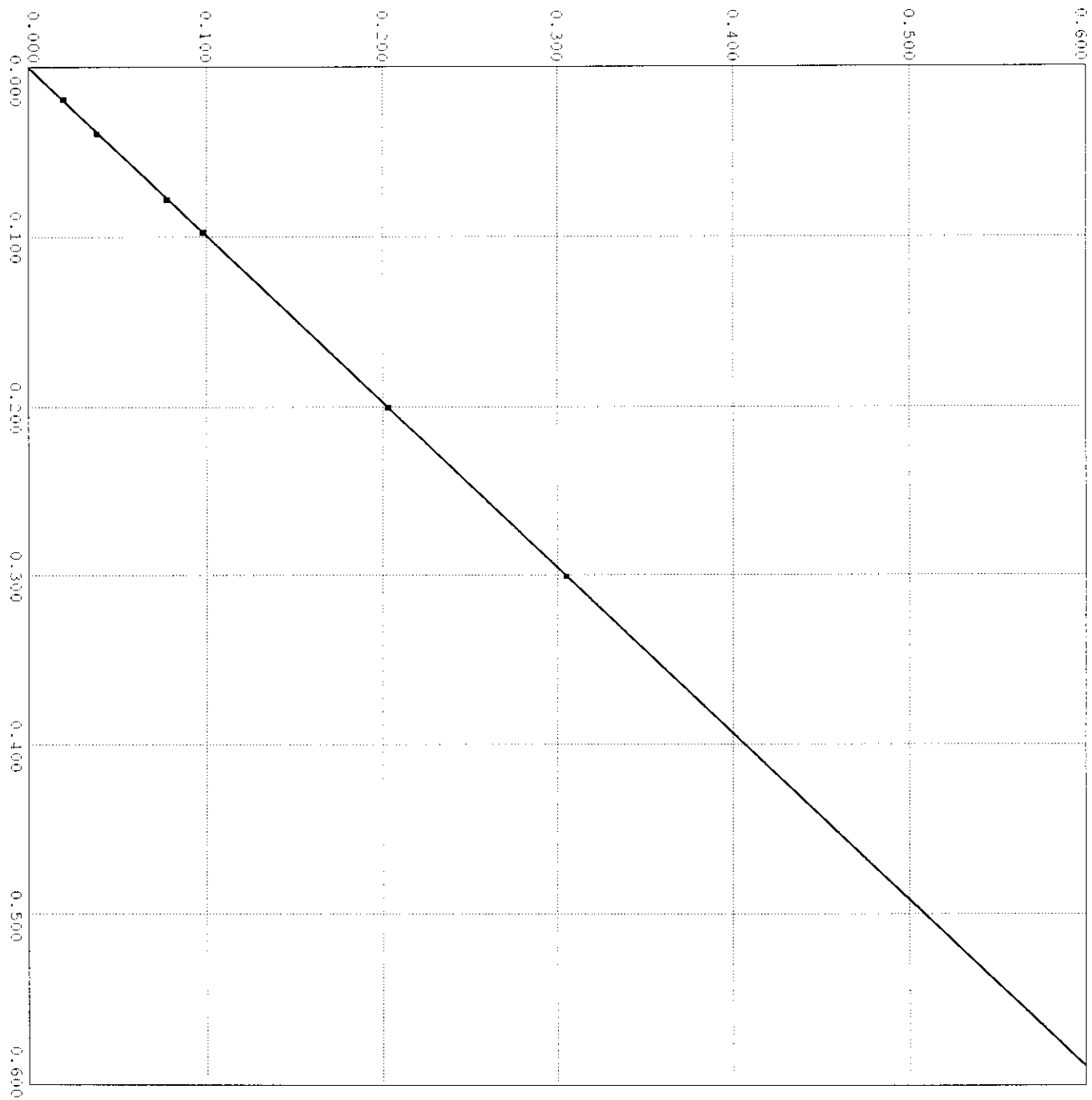
Date: 04/18/2019  
Time: 08:59:02

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0202	0.0008
0.039	0.0390	0.0000
0.078	0.0786	0.0005
0.097	0.0990	0.0000
0.200	0.2040	0.0007
0.300	0.3058	0.0008

SLOPE = 1.019751  
R<sup>2</sup> = 0.999966

*BM B*



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100390

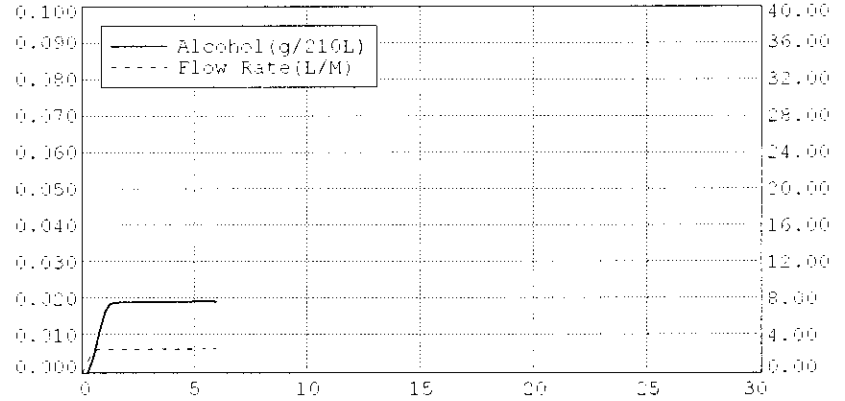
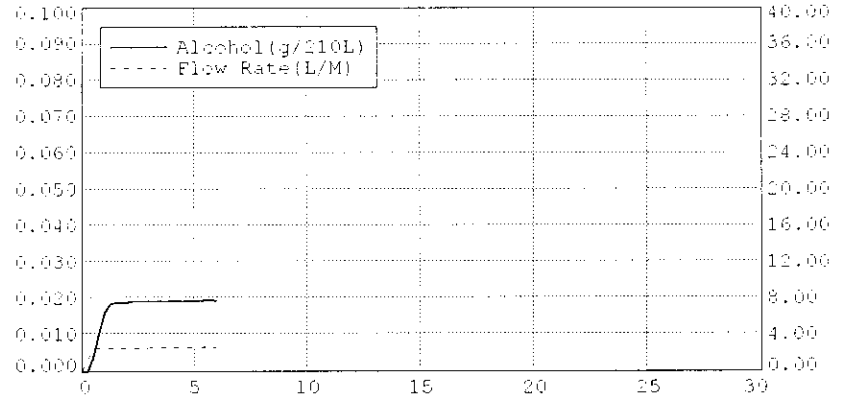
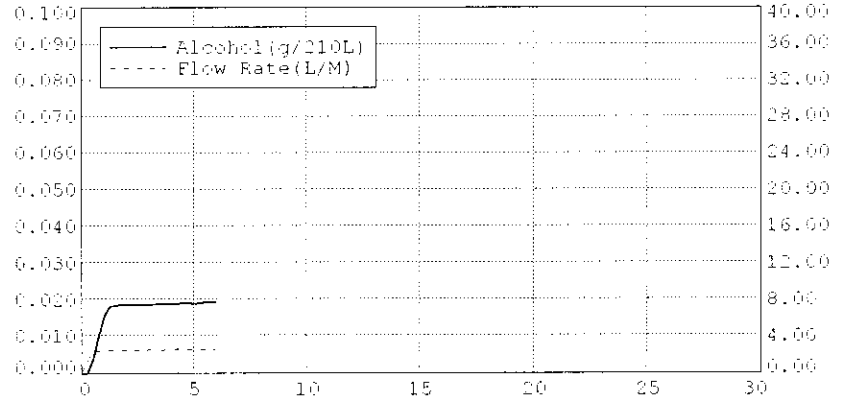
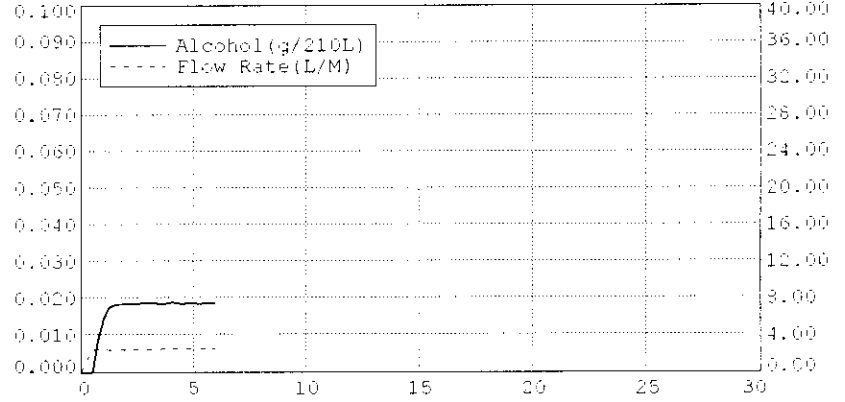
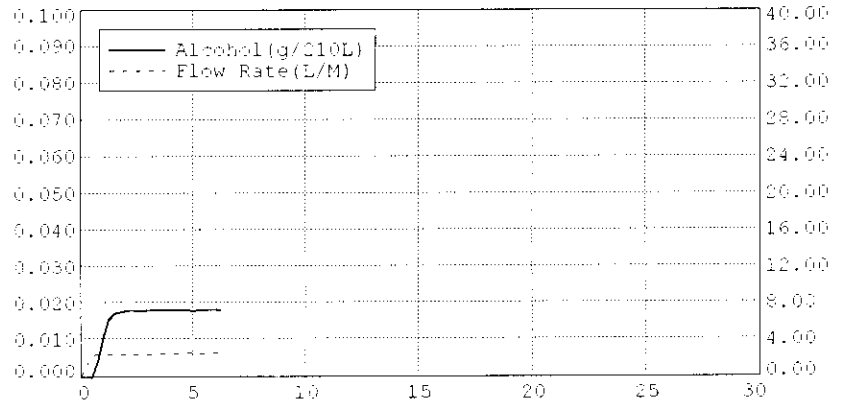
Date: 04/18/2019  
 Time: 08:59:04

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.16: 0.019  
 LOT #: AG805804  
 EXPIRATION: 02/27/2020  
 TANK PRESSURE: 773 psi

BLANK TEST	0.000	09:00
INTERNAL STANDARD	VERIFIED	09:00
EXTERNAL STANDARD	0.019	09:00
BLANK TEST	0.000	09:01
EXTERNAL STANDARD	0.020	09:01
BLANK TEST	0.000	09:02
EXTERNAL STANDARD	0.020	09:03
BLANK TEST	0.000	09:03
EXTERNAL STANDARD	0.021	09:04
BLANK TEST	0.000	09:05
EXTERNAL STANDARD	0.021	09:05
BLANK TEST	0.000	09:06

Average = 0.0202  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100390

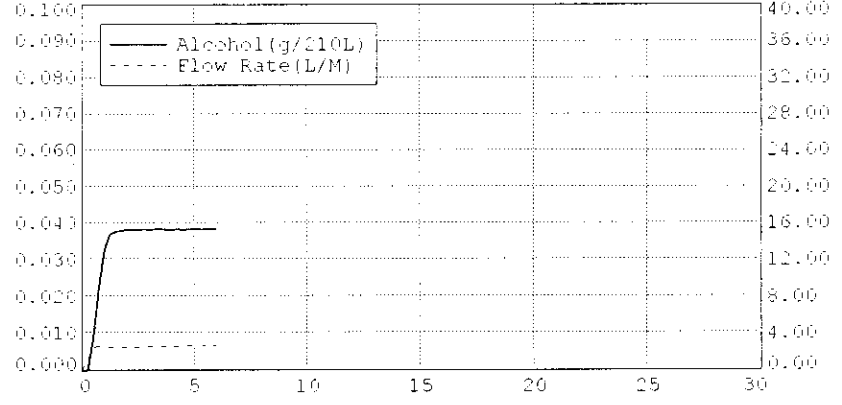
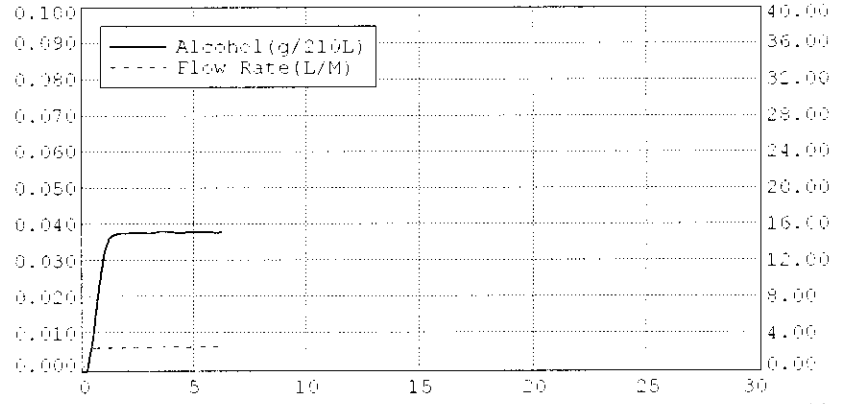
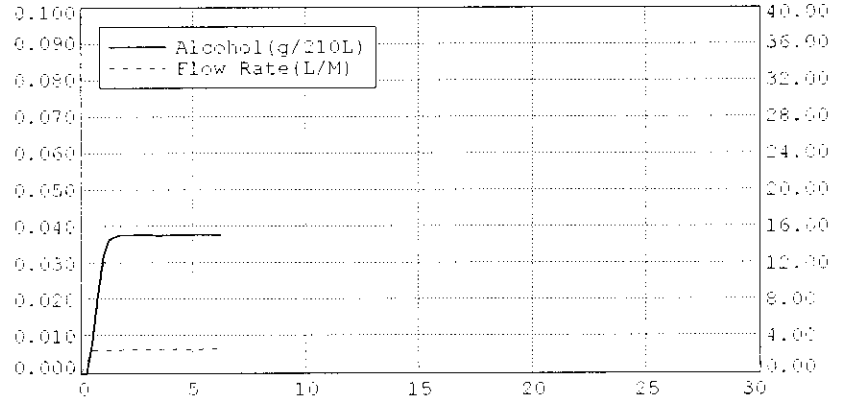
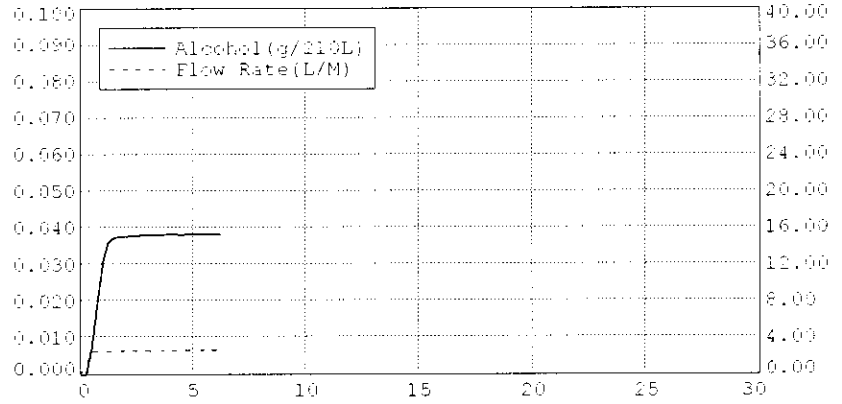
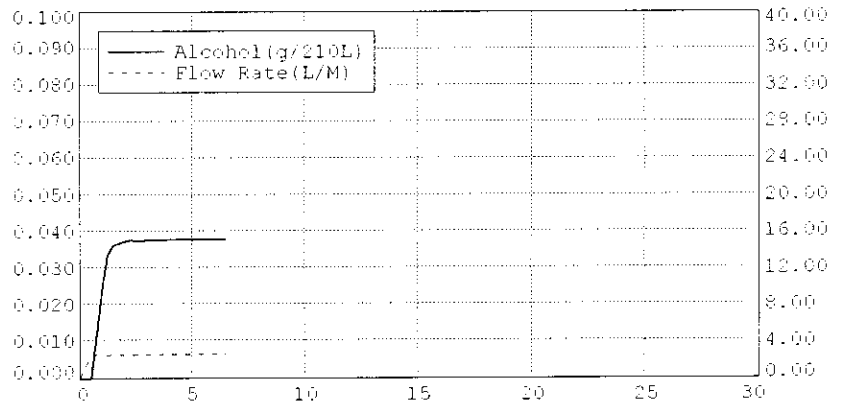
Date: 04/18/2019  
 Time: 09:07:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.15: 0.039  
 LOT #: AG733403  
 EXPIRATION: 11/30/2019  
 TANK PRESSURE: 766 psi

BLANK TEST	0.000	09:09
INTERNAL STANDARD	VERIFIED	09:09
EXTERNAL STANDARD	0.039	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.039	09:10
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.039	09:11
BLANK TEST	0.000	09:12
EXTERNAL STANDARD	0.039	09:12
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.039	09:14
BLANK TEST	0.000	09:14

Average = 0.0390  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100390

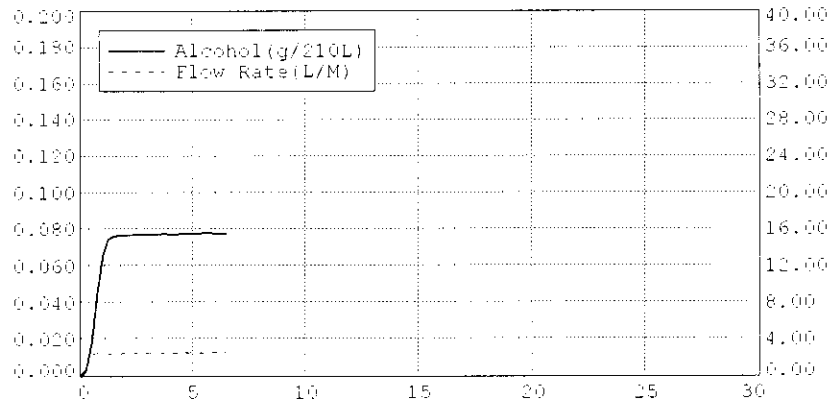
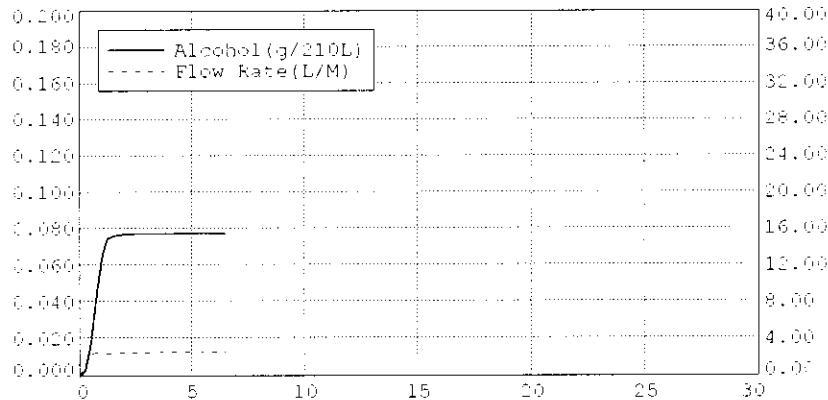
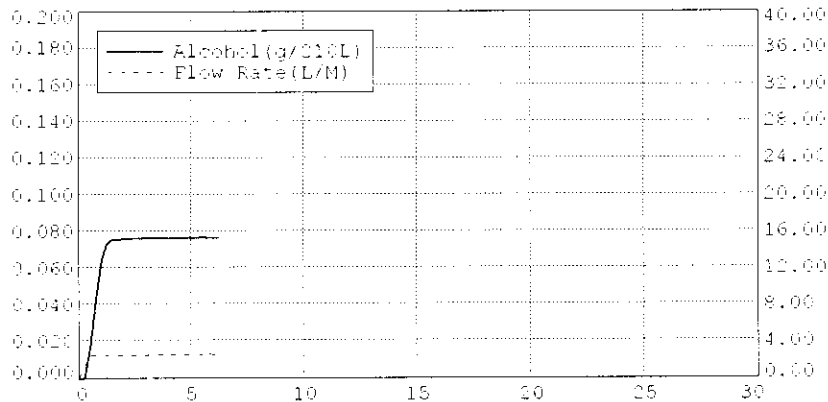
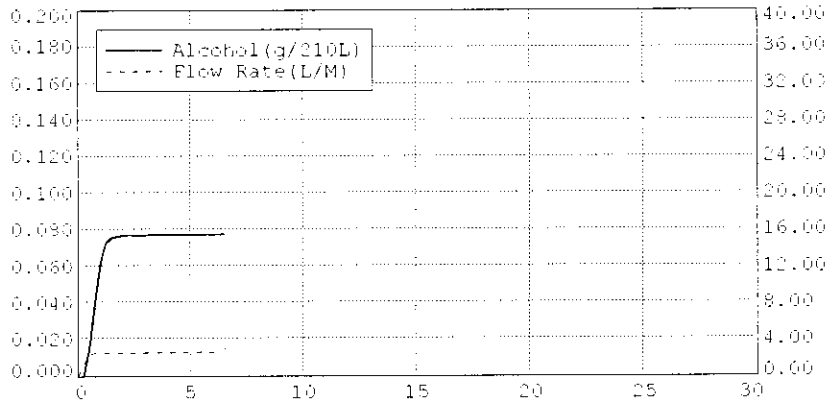
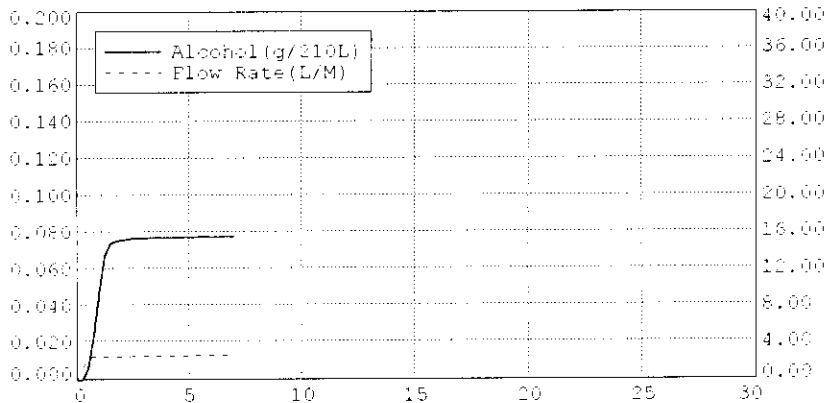
Date: 04/18/2019  
 Time: 09:20:38

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.16: 0.078  
 LOT #: AG826101  
 EXPIRATION: ~~11/18/2020~~ 9/18/2020 BMB  
 TANK PRESSURE: 702 psi

BLANK TEST	0.000	09:21
INTERNAL STANDARD	VERIFIED	09:21
EXTERNAL STANDARD	0.079	09:22
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.079	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.078	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.078	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.079	09:26
BLANK TEST	0.000	09:27

Average = 0.0786  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

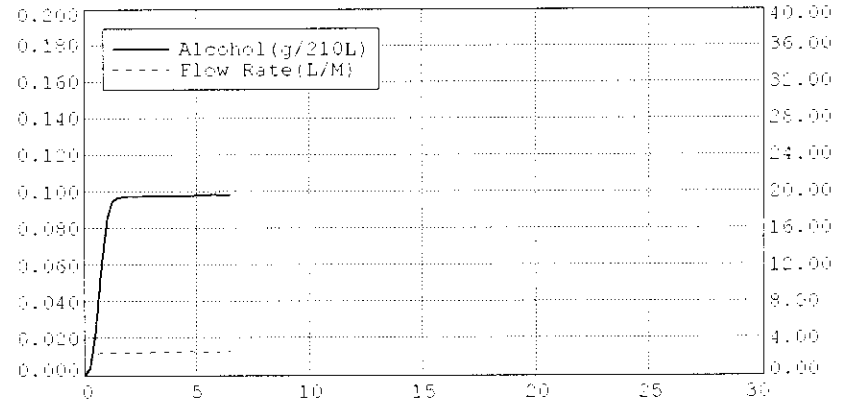
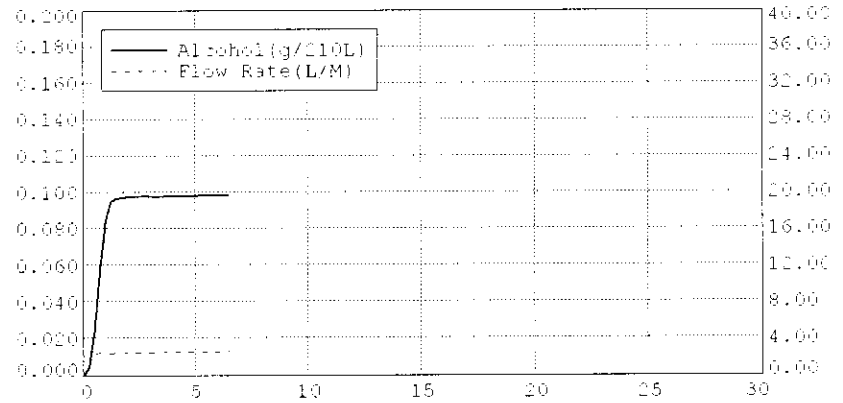
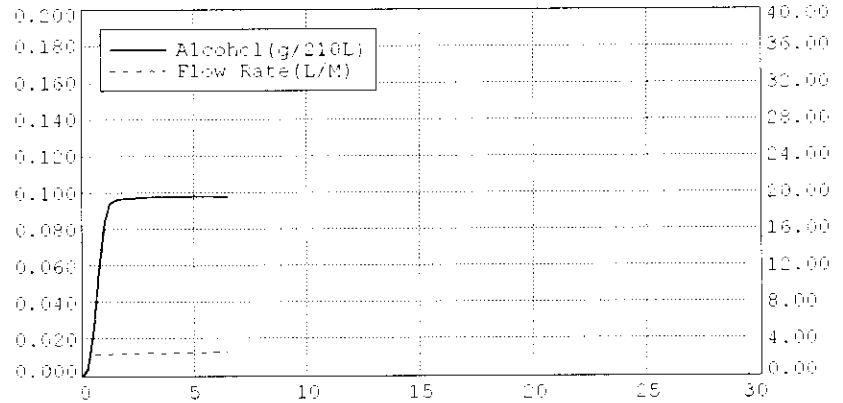
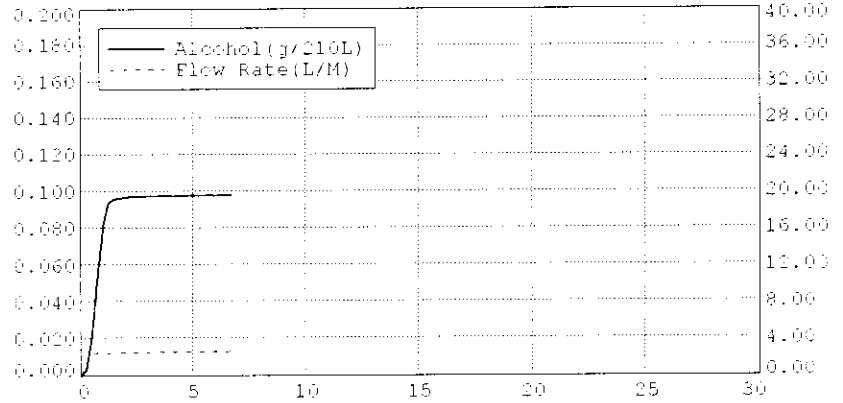
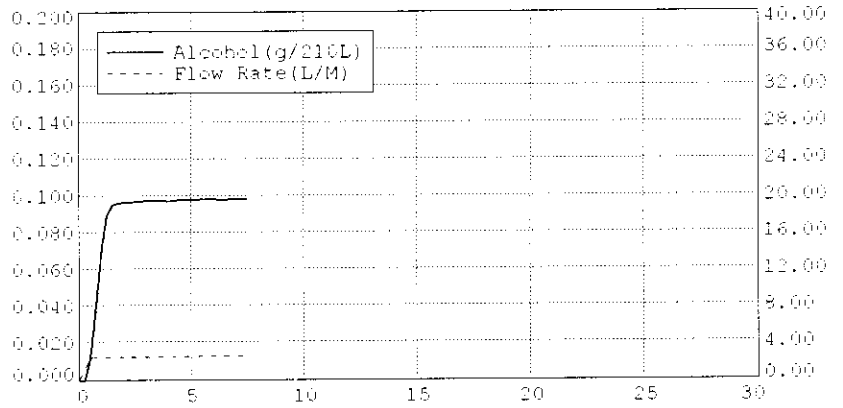
Date: 04/18/2019  
Time: 09:45:01

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 29.16: 0.097  
LOT #: AG805903  
EXPIRATION: 02/28/2020  
TANK PRESSURE: 712 psi

BLANK TEST	0.000	09:46
INTERNAL STANDARD	VERIFIED	09:46
EXTERNAL STANDARD	0.099	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.099	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.099	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.099	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.099	09:50
BLANK TEST	0.000	09:51

Average = 0.0990  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

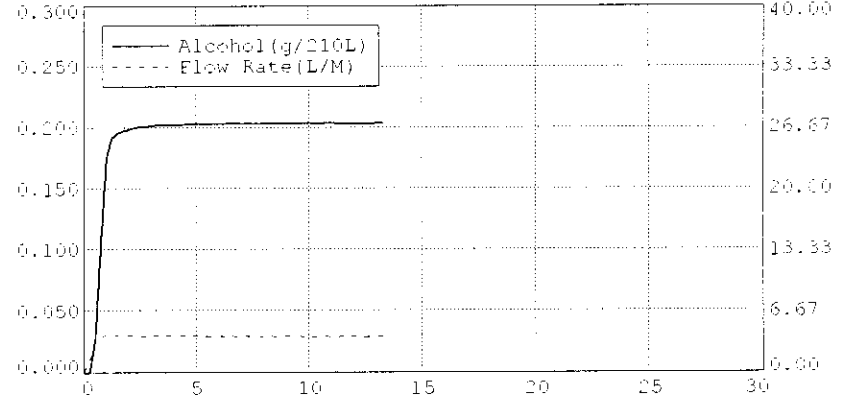
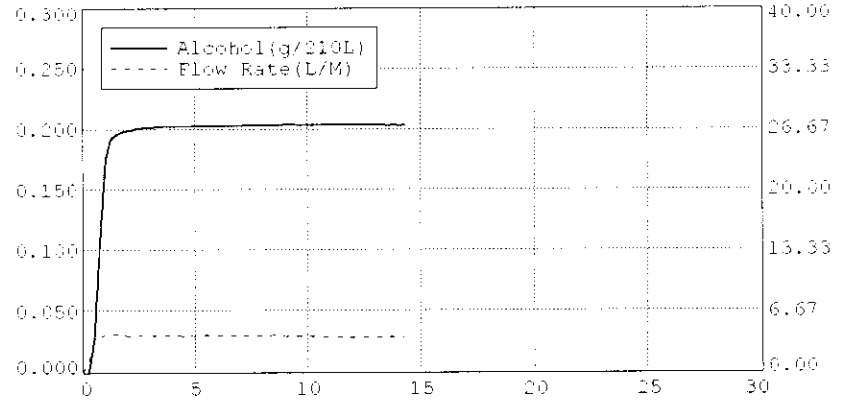
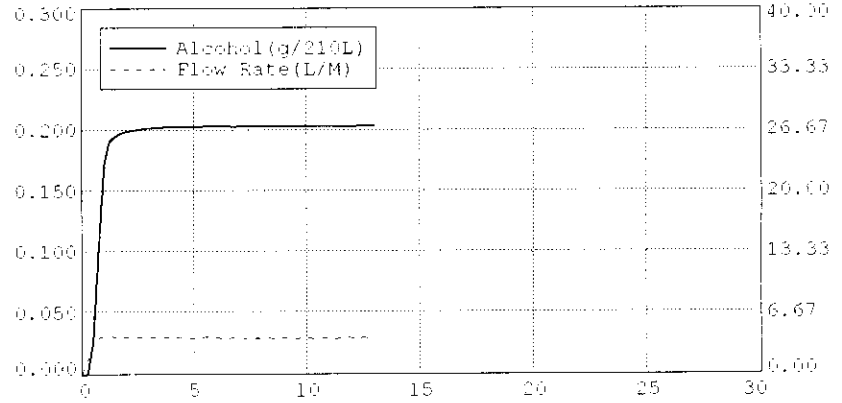
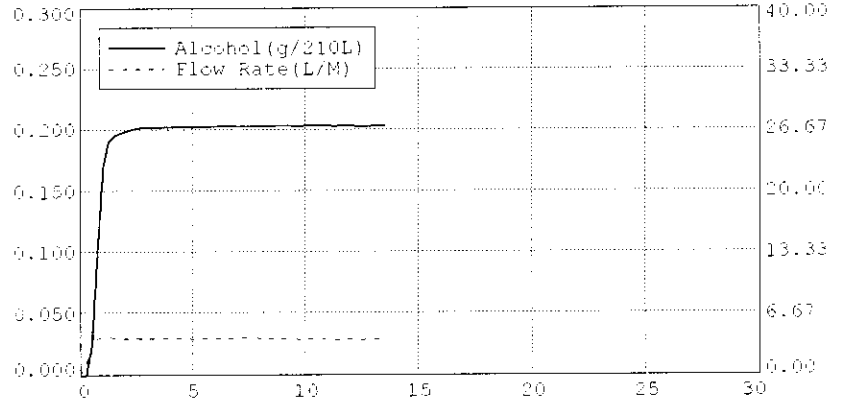
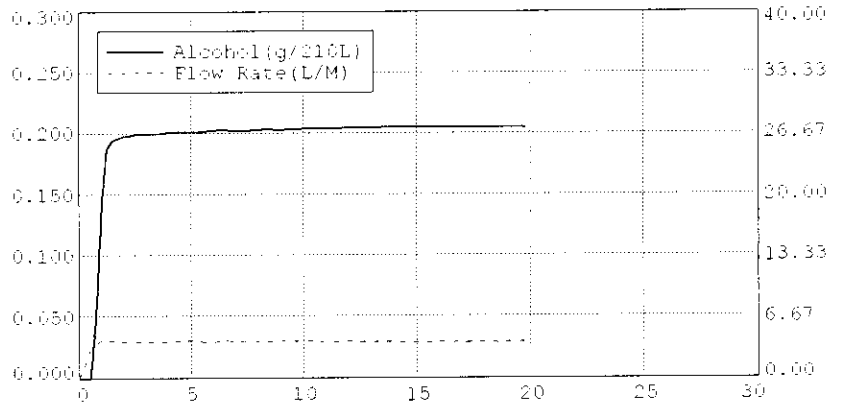
Alaska Department of Public Safety  
 DATAMASTER dmt: 100390

Date: 04/18/2019  
 Time: 09:56:49

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: GUTH 17340  
 EXPIRATION: 10/09/2019

BLANK TEST	0.000	09:57
INTERNAL STANDARD	VERIFIED	09:58
EXTERNAL STANDARD	0.205	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.203	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.204	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.204	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.204	10:03
BLANK TEST	0.000	10:04

Average = 0.2040  
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 6

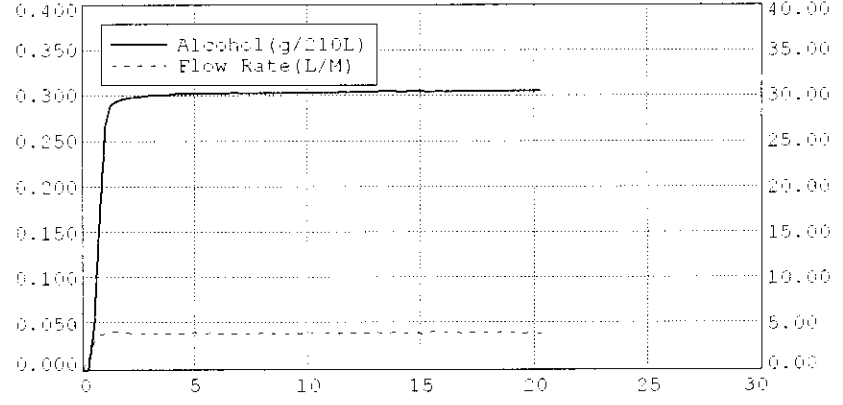
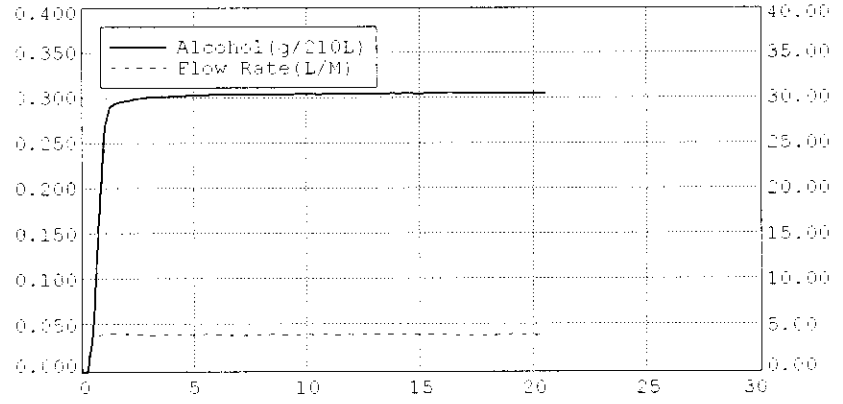
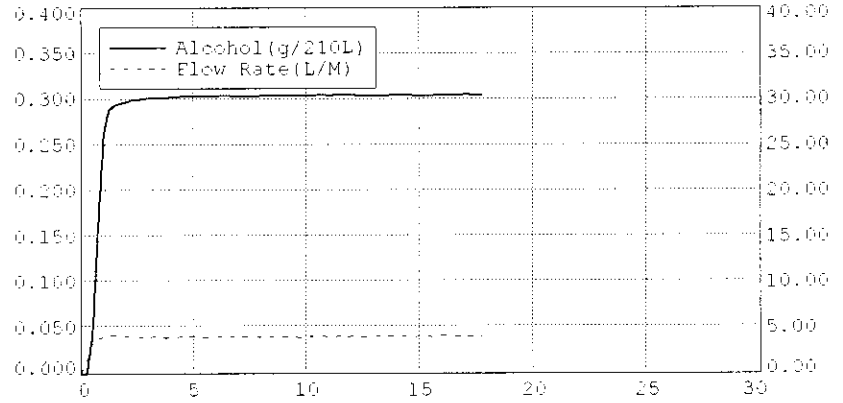
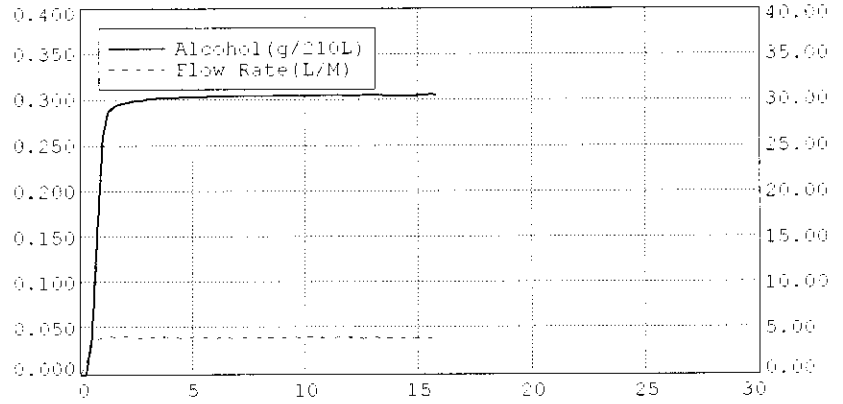
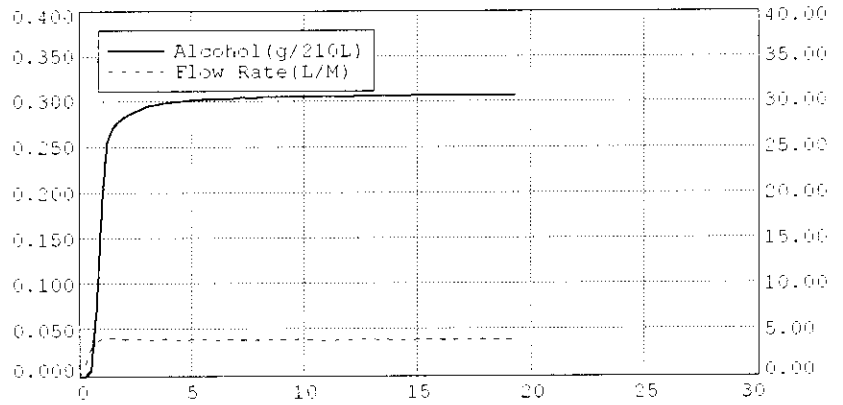
Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/18/2019  
Time: 10:06:48

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.300  
LOT #: GUTH 17350  
EXPIRATION: 10/11/2019

BLANK TEST	0.000	10:07
INTERNAL STANDARD	VERIFIED	10:08
EXTERNAL STANDARD	0.307	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.306	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.305	10:11
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.306	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.305	10:13
BLANK TEST	0.000	10:14

Average = 0.3058  
Std Dev = 0.0008



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 12:31:56

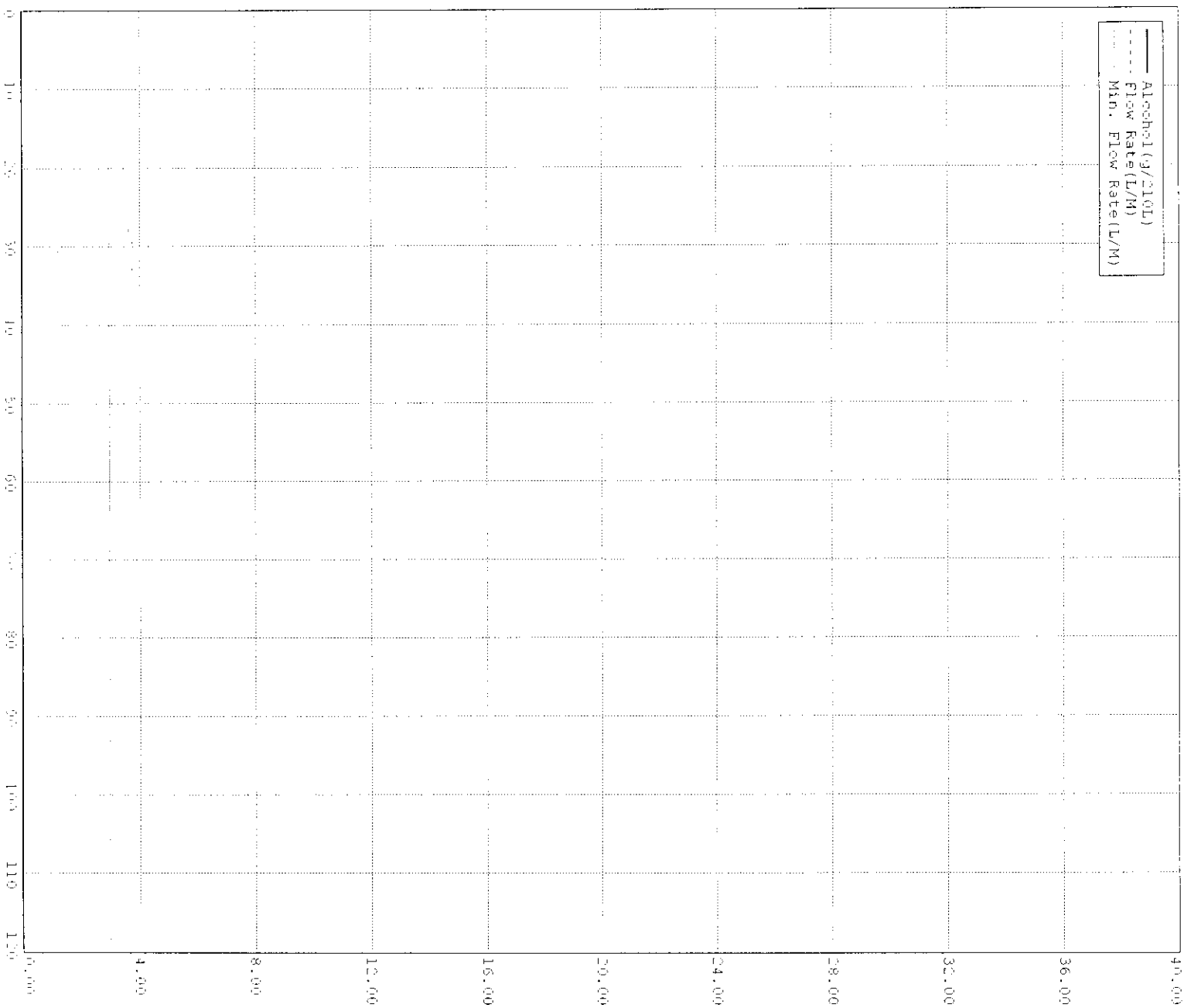
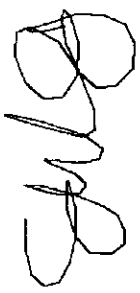
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:33
BLANK TEST	0.000	12:33
INTERNAL STANDARD	VERIFIED	12:33
EXTERNAL STANDARD	0.079	12:34
BLANK TEST	0.000	12:35
SUBJECT SAMPLE	INCOMPLETE	12:37



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 12:40:59

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

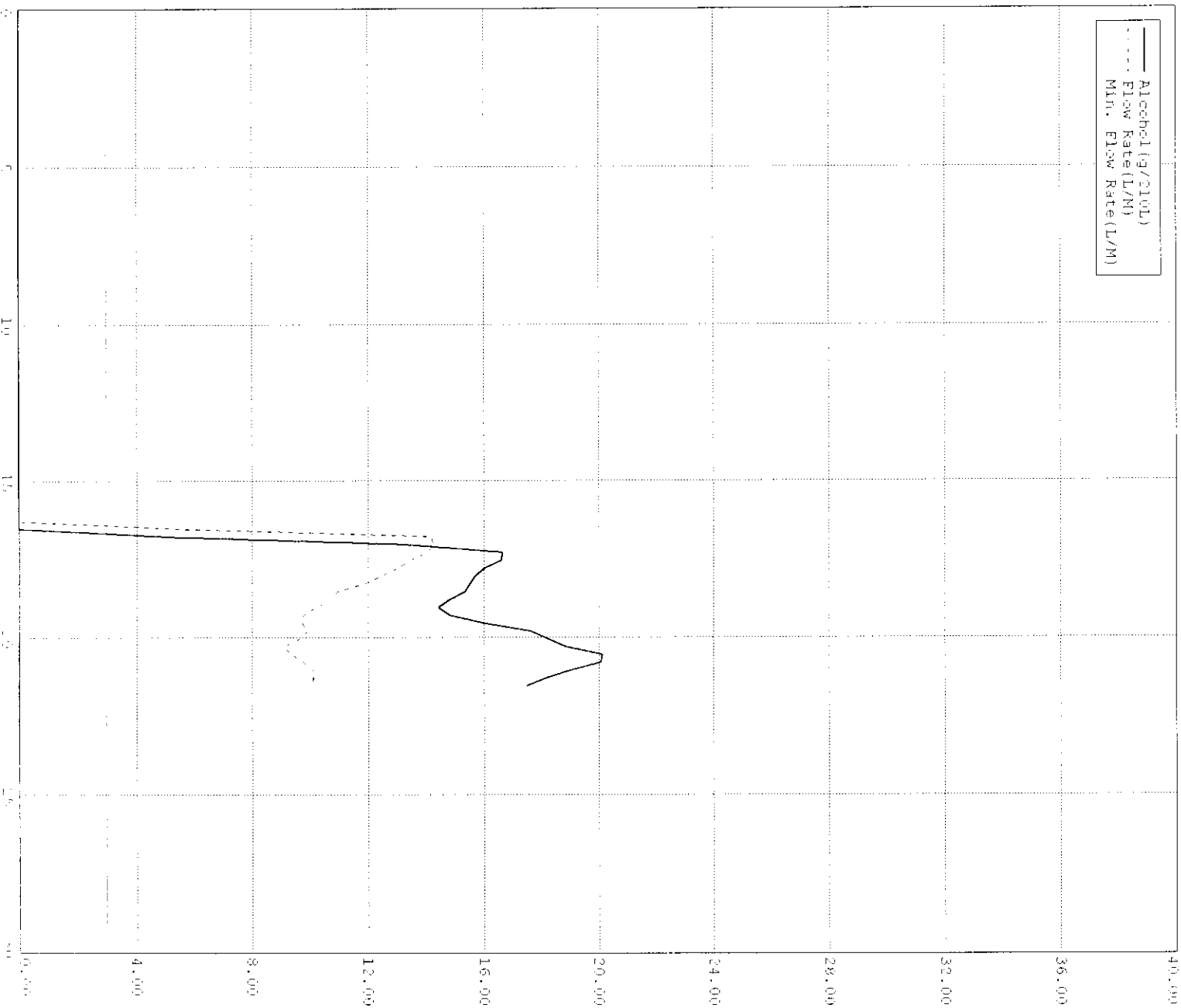
OPERATOR NAME:  
BRANDI M BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:41
BLANK TEST	0.000	12:42
INTERNAL STANDARD	VERIFIED	12:42
EXTERNAL STANDARD	0.079	12:42
BLANK TEST	0.000	12:43
SUBJECT SAMPLE	INVALID	12:43

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 12:46:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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

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

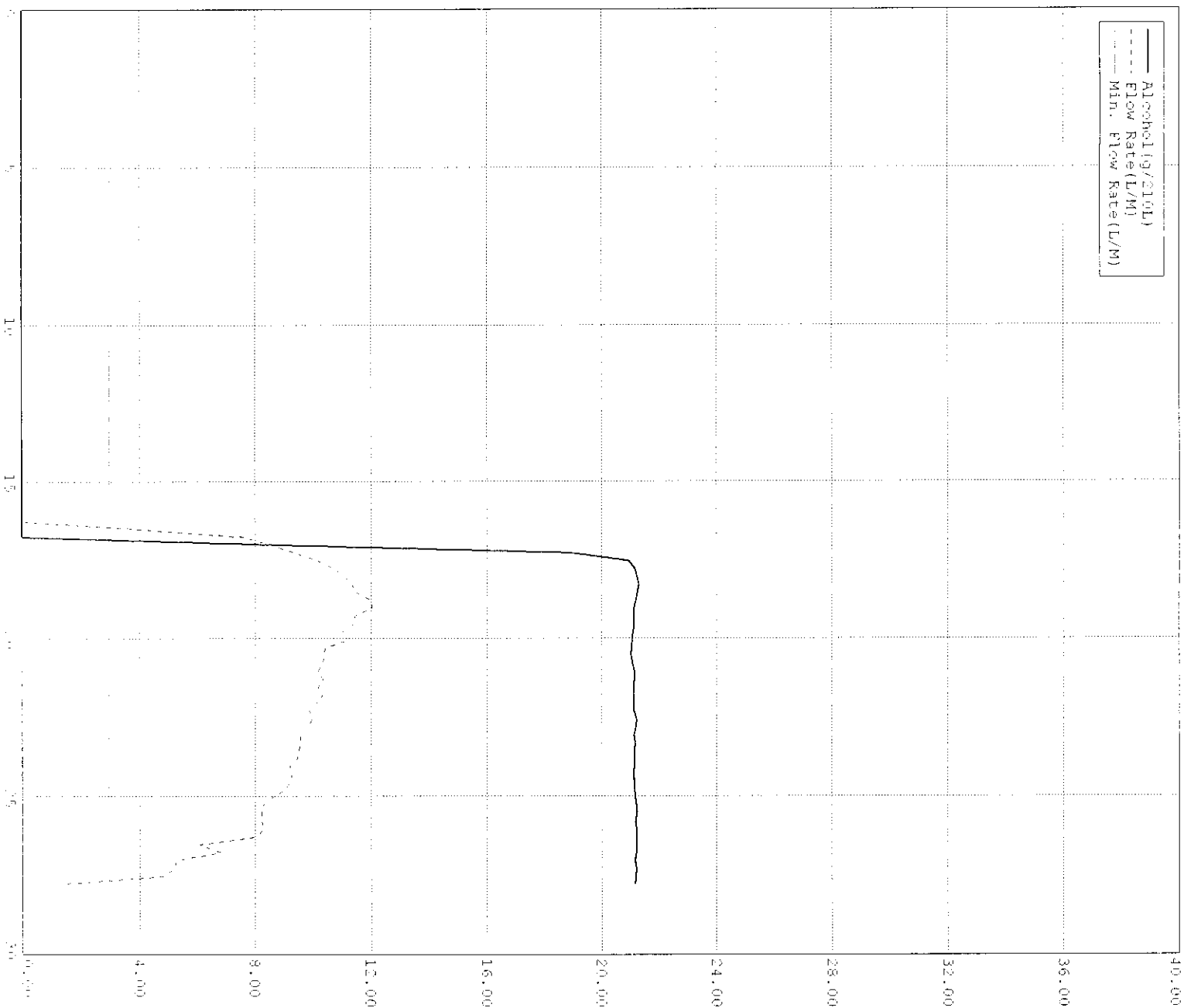
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	12:47
BLANK TEST	0.000	12:47
INTERNAL STANDARD	VERIFIED	12:47
Xq = 0.097 (0.91%)		
EXTERNAL STANDARD	0.080	12:47
X[1] = 0.0798 (0.0004)	(0.0025)	
BLANK TEST	0.000	12:48
SUBJECT SAMPLE	XXX	12:49
X[1] = 0.1069 (-0.0166)	(0.0009)	

Interference Detected

Filter 2 Avg: 0.0000  
Filter 3 Avg: 0.0022  
BMB 4/19/19

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 12:53:49

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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

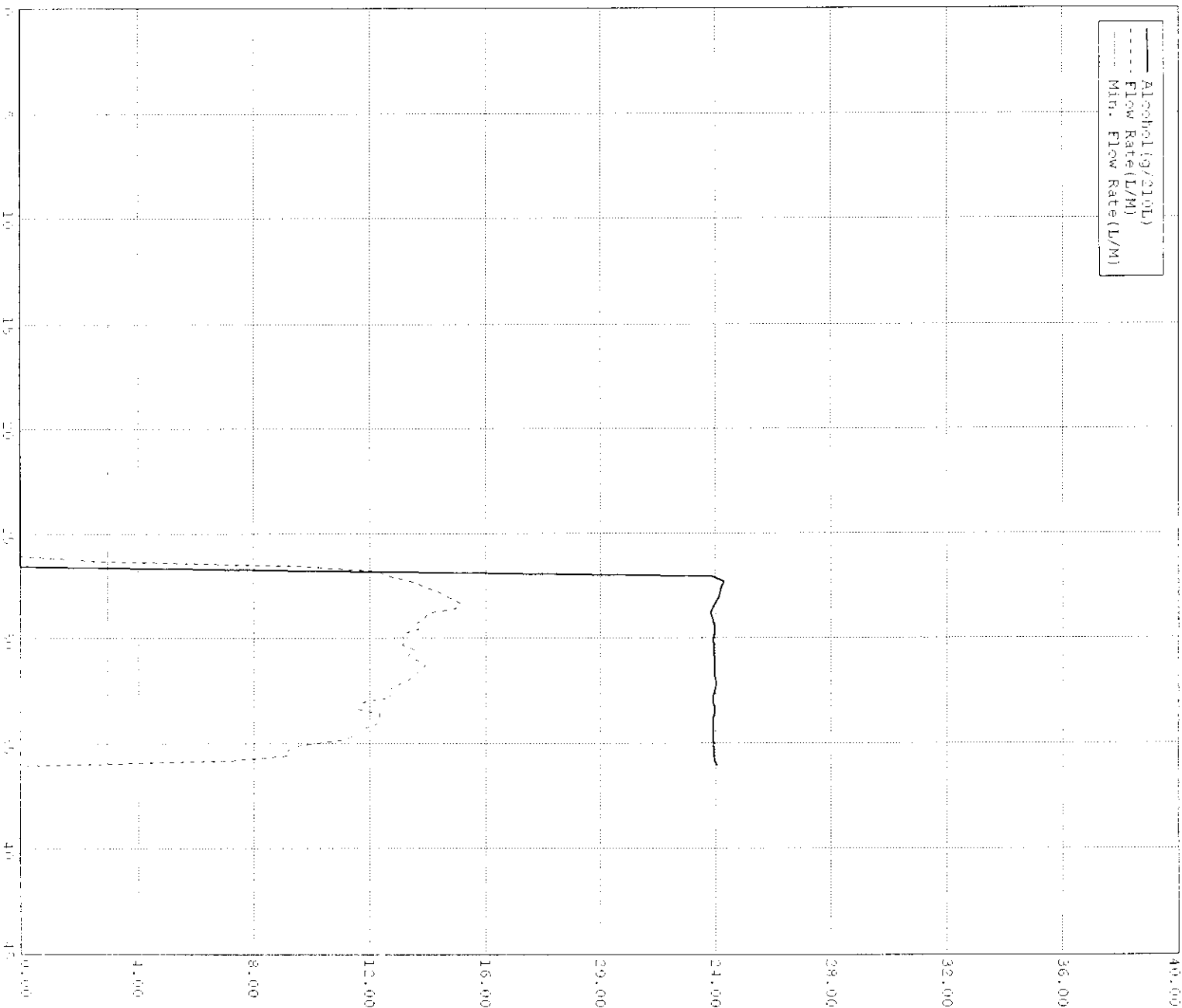
DEPT/AGENCY:  
INTERFERENCE ISOPROPANOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	12:54
BLANK TEST	0.000	12:55
INTERNAL STANDARD	VERIFIED	12:55
Xq = 0.096 (0.55%)		
EXTERNAL STANDARD	0.080	12:55
X[1] = 0.0798 (0.0002)	(0.0020)	
BLANK TEST	0.000	12:56
SUBJECT SAMPLE	XXX	12:56
X[1] = 0.1207 (-0.0243)	(0.0019)	

Interference Detected

*BMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 13:02:35

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

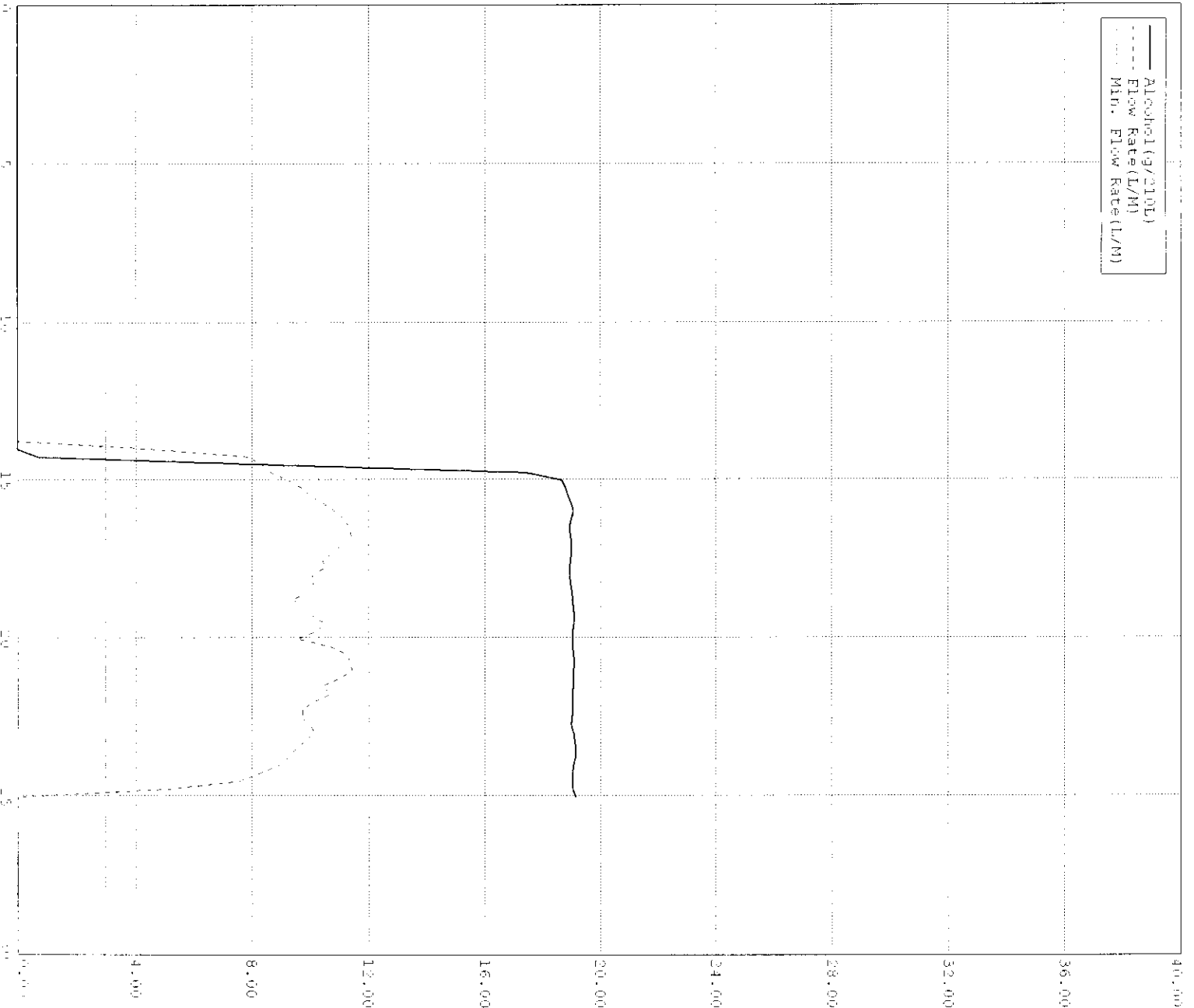
OPERATOR NAME:  
BRANDI M BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	13:03
BLANK TEST	0.000	13:04
INTERNAL STANDARD	VERIFIED	13:04
Xq = 0.097 (0.82%)		
EXTERNAL STANDARD	0.080	13:04
X[1] = 0.0795 (0.0000)	(0.0027)	
BLANK TEST	0.000	13:05
SUBJECT SAMPLE (Vol=1.80L)	0.096	13:05
X[1] = 0.0965 (0.0001)	(0.0009)	
BLANK TEST	0.000	13:06
EXTERNAL STANDARD	0.079	13:07
X[1] = 0.0793 (-0.0006)	(0.0017)	
BLANK TEST	0.000	13:07

*Handwritten signature: BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 13:10:11

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

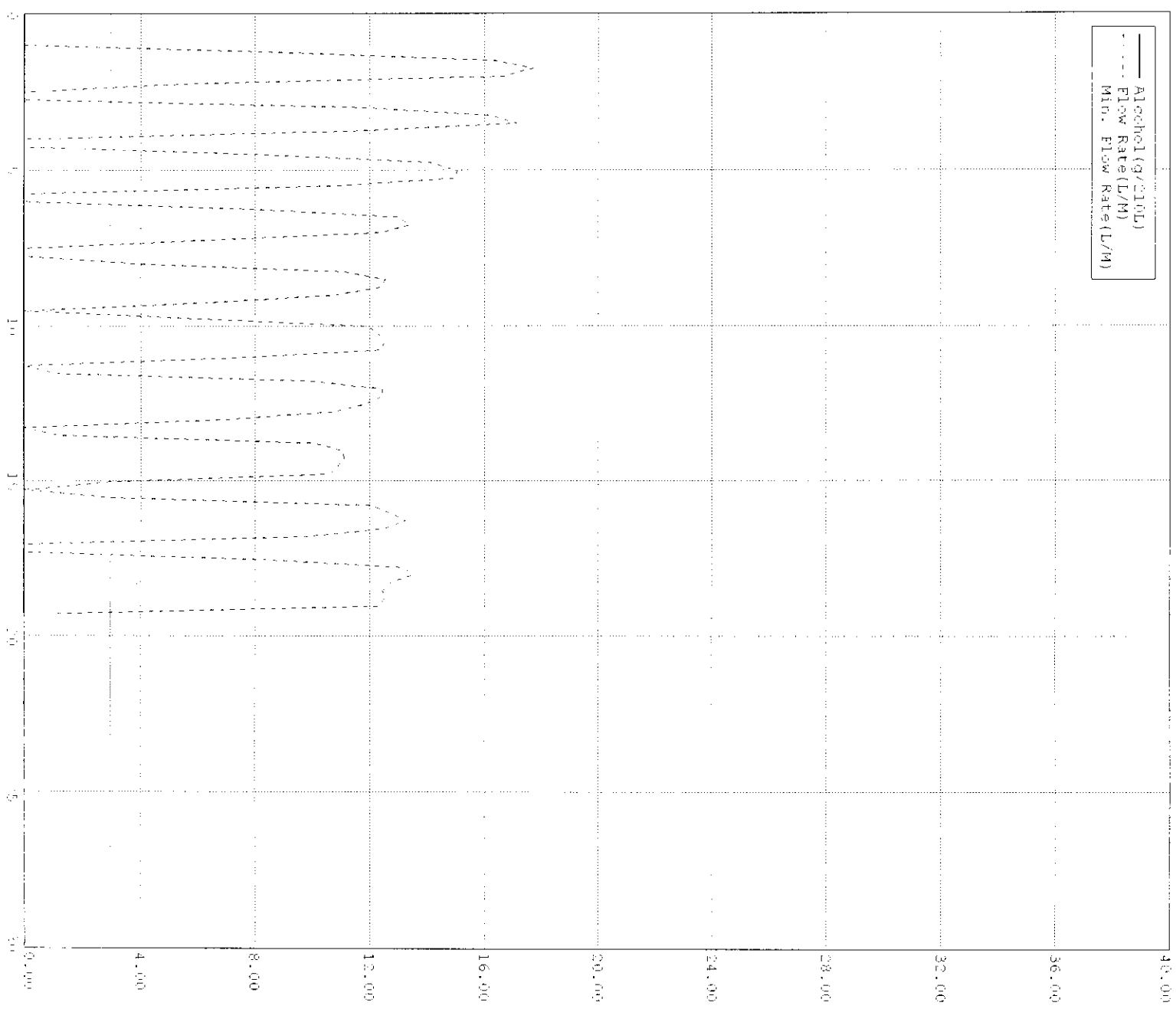
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:12
BLANK TEST	0.000	13:12
INTERNAL STANDARD	VERIFIED	13:12
EXTERNAL STANDARD	0.080	13:12
BLANK TEST	0.000	13:13
SUBJECT SAMPLE	XXX	13:13

Maximum Attempts Exceeded

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100390

Date: 04/19/2019  
Time: 13:17:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

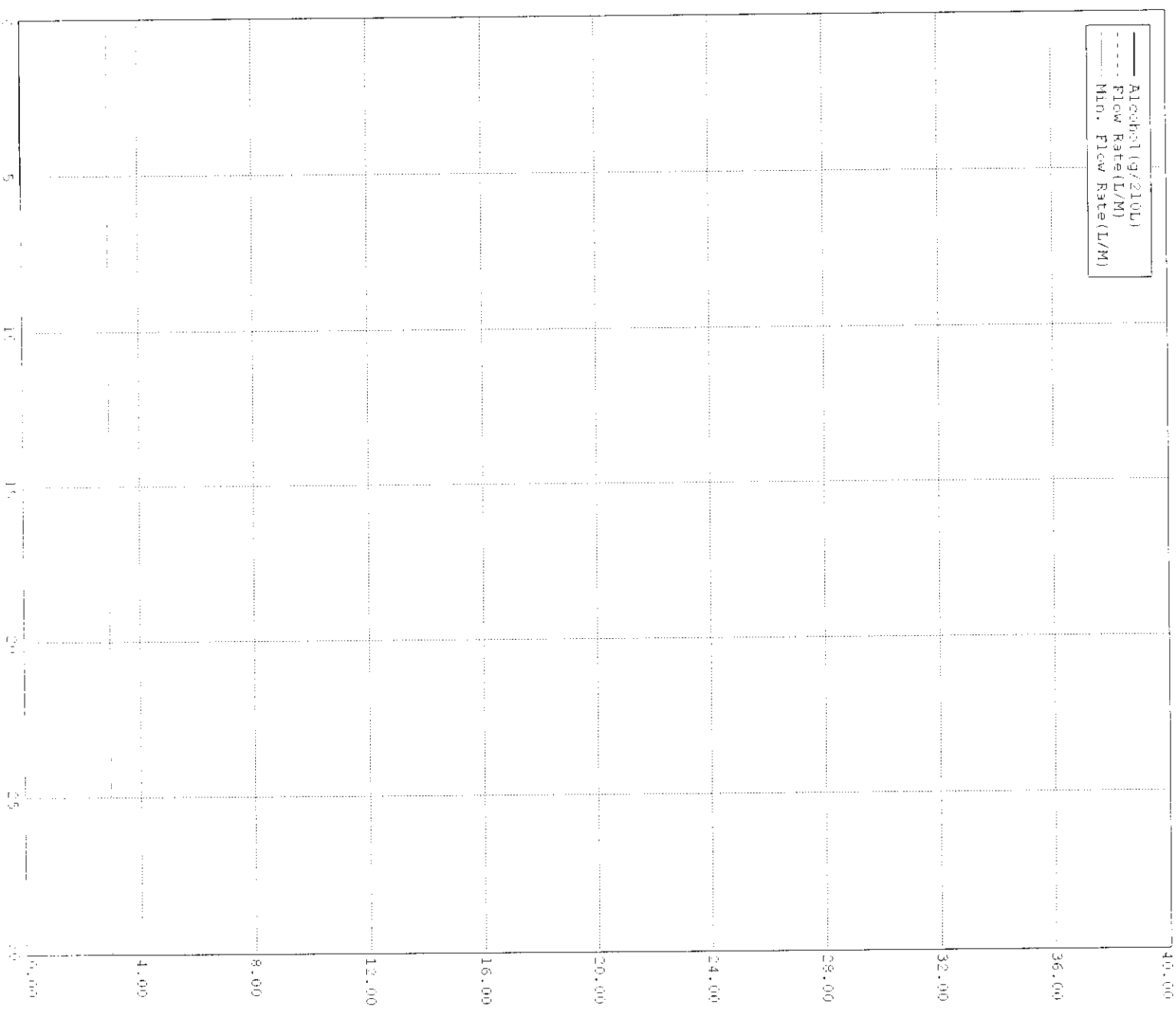
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

DIAGNOSTIC CHECK	PASSED	13:22
BLANK TEST	0.000	13:22
INTERNAL STANDARD	VERIFIED	13:22
EXTERNAL STANDARD	0.080	13:22
BLANK TEST	0.000	13:23

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DAPAMASTER dmt: 100390

Date: 04/19/2019  
Time: 13:40:57

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 29.51: 0.079  
LOT #: AG826101  
EXPIRATION: 09/18/2020

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	13:42
BLANK TEST	0.000	13:42
INTERNAL STANDARD	VERIFIED	13:42
EXTERNAL STANDARD	0.079	13:42
BLANK TEST	0.000	13:43
SUBJECT SAMPLE (Vol=1.86L)	0.000	13:43
BLANK TEST	0.000	13:44
EXTERNAL STANDARD	0.080	13:44
BLANK TEST	0.000	13:45

