

# 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 100696 Analyst Brandi Barnett Start Date 8/8/17

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 AG616504 Exp 6/13/18
- ii. 0.040g/210L Mnf Airgas Lot AG630101 Exp 10/27/18
- iii. 0.080g/210L Mnf Airgas Lot AG634001 Exp 12/05/18
- iv. 0.100g/210L Mnf Airgas Lot AG629304 Exp 10/19/18
- v. 0.200g/210L Mnf Guth Lot 16190 Exp 8/15/18
  - 1. Simulator S/N DR5298 Date Calibrated 9/14/16
- vi. 0.300g/210L Mnf Guth Lot 16410 Exp 12/19/18
  - 1. Simulator S/N SD1177 Date Calibrated 9/13/16

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18
  - 1. Simulator S/N SD1199 Date Calibrated 9/13/16
- ii. Isopropanol - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18
  - 1. Simulator S/N SD1088 Date Calibrated 9/13/16
- iii. Negative Control - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18
  - 1. Simulator S/N DR4161 Date Calibrated 9/14/16

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 8/10/17

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100696  
-----

Date: 08/08/2017  
Time: 13:52:50

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        = 46.2°C                PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage     = 1.74 V                   PASSED  
(1.04 V - 2.44 V)  
Cooler Voltage   = 1.74 V                   PASSED  
(1.06 V - 2.48 V)  
Bias Voltage     = 80 V                      PASSED  
(48 V - 112 V)  
Chopper Freq    = 527 Hz                      PASSED  
(475 Hz - 575 Hz)  
Barometer        = 30.0 in

PUMP INFO

Flow Rate = 4.703 L/M                    PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON                                    PASSED  
(0.002 V <= 0.010 V)  
PUMP OFF                                  PASSED  
(0.001 V <= 0.010 V)

FILTER INFO

Filter 1                                   PASSED  
Filter 2                                   PASSED  
Filter 3                                   PASSED

INTERNAL STANDARD

Xq = 0.105 1.02% (0.00% - 4.00%)      PASSED

Technician Screen

-----  
DATAMASTER dmt: 100696  
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Date: 08/09/2017  
Time: 9:02 AM

Temperatures (°C)

Sample Cell: 49.0°C  
Breath Tube: 46.2°C

Current Barometer 29.8 in  
Volume (Ltr) 1.50

Settings

Lamp: 1.74 V  
Bias: 80 V  
Cooler: 1.74 V  
Chopper: 527 Hz

Voltages (V)

Flow: 1.04 V  
Detector: -0.036 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100696  
-----

Date: 02/11/2016  
Time: 09:57:19

OPERATOR NAME:  
NPAS TECH  
CERTIFICATE #: G12921, 15200, 34.0C

Ca	=	0.1010			
CAL	=	1.002703	0.800	<=	CAL < 1.200
b1	=	0.0006	0.0000	<=	b1 < 0.0040
b2	=	0.0062	0.0010	<=	b2 < 0.0100
b3	=	0.0001	0.0000	<=	b3 < 0.0040
Xq	=	0.1037	0.0500	<=	Xq < 0.2000
a21	=	1.171655	1.050	<=	a21 < 1.300
a31	=	0.482404	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/09/2017  
Time: 09:06:14

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

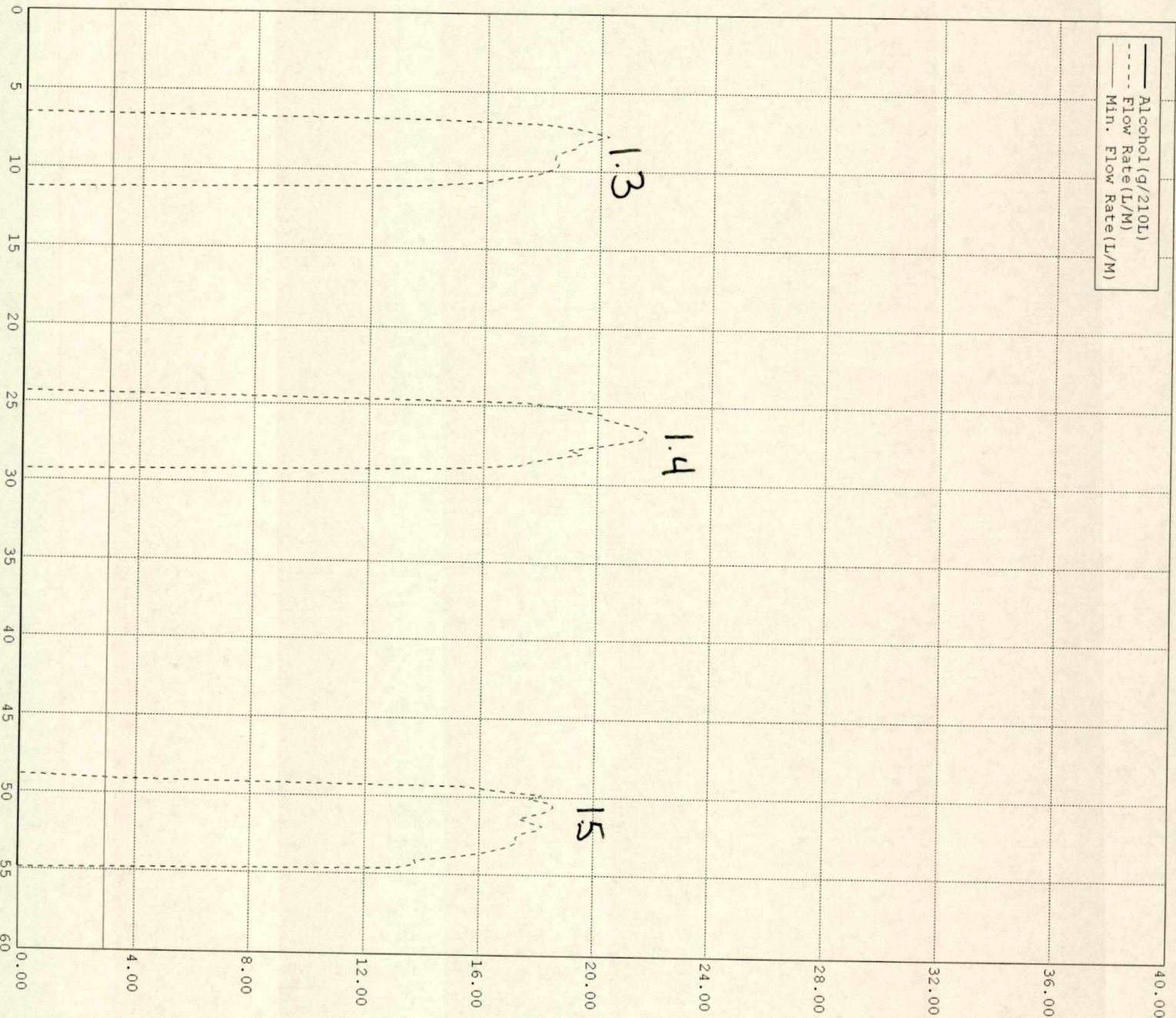
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:07
BLANK TEST	0.000	09:07
INTERNAL STANDARD	VERIFIED	09:07
EXTERNAL STANDARD	0.080	09:08
BLANK TEST	0.000	09:09
SUBJECT SAMPLE (Vol=1.56L)	0.000	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.080	09:11
BLANK TEST	0.000	09:11

*Handwritten signature: BMB*



LINEARITY CHECK

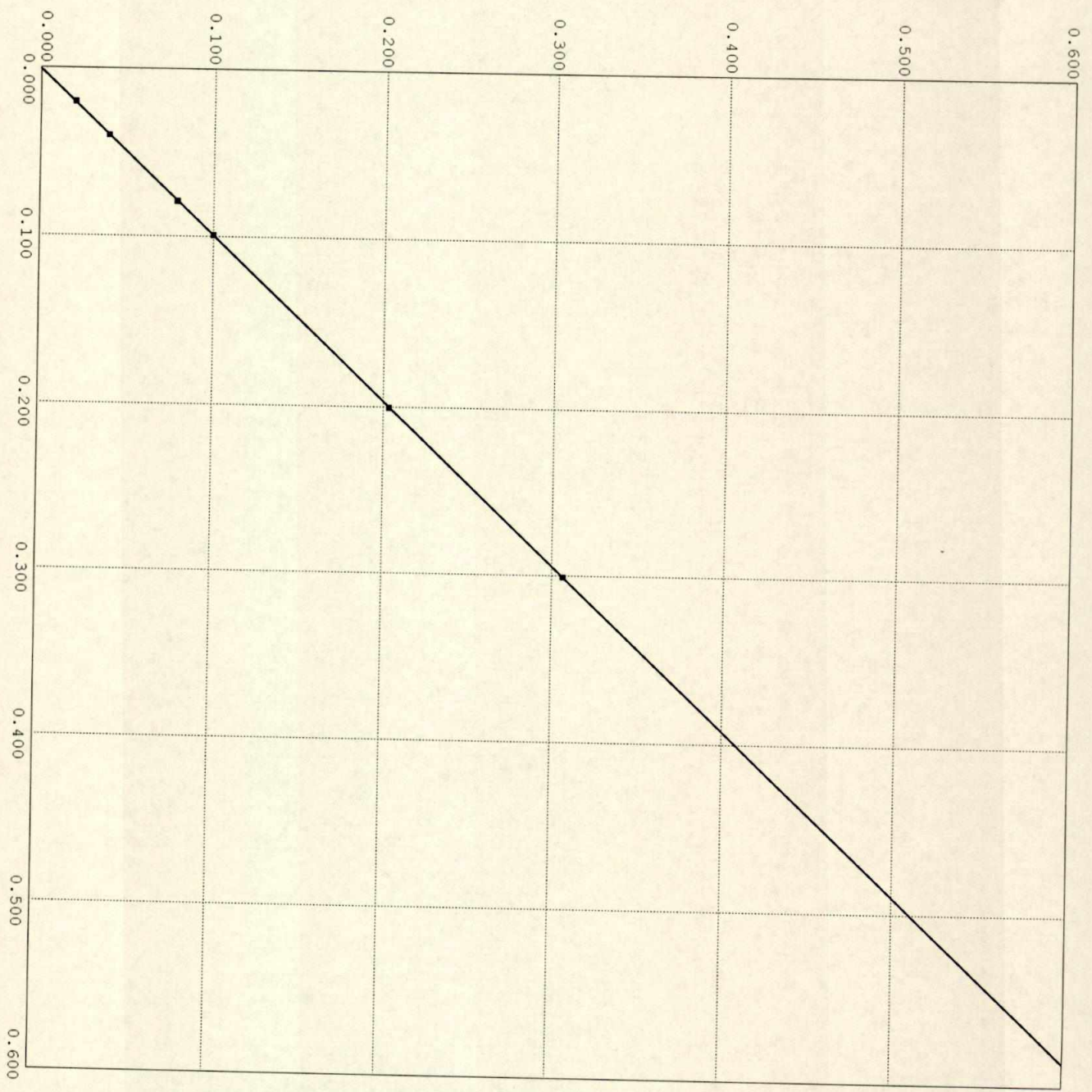
Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

Date: 08/09/2017  
 Time: 10:03:55

SUPERVISOR NAME:  
 BRANDI BARNETT  
 OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0206	0.0005
0.040	0.0402	0.0004
0.079	0.0800	0.0000
0.099	0.1010	0.0000
0.200	0.2042	0.0004
0.300	0.3072	0.0004

SLOPE = 1.024925  
 R<sup>2</sup> = 0.999987



*BMB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

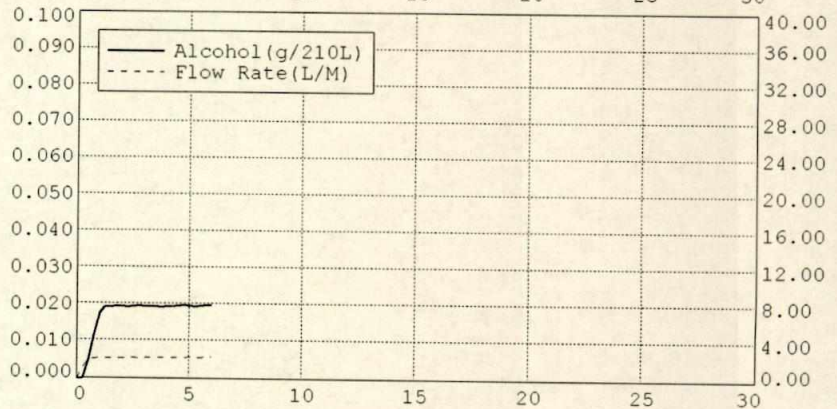
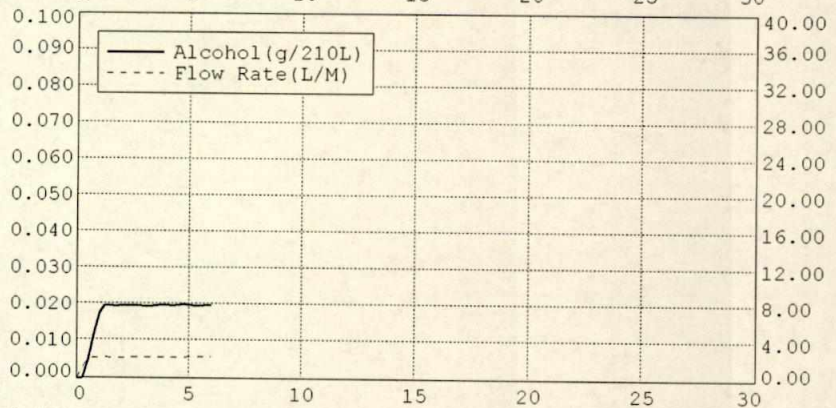
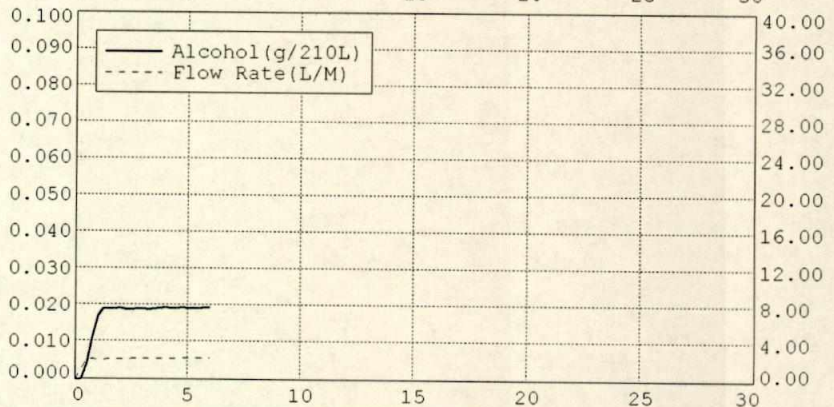
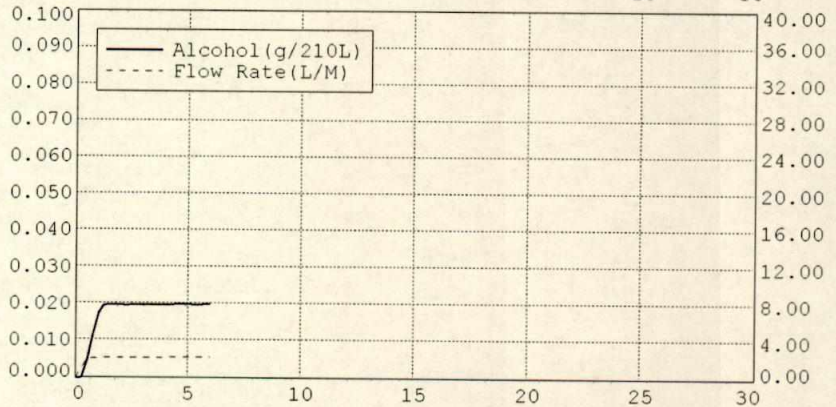
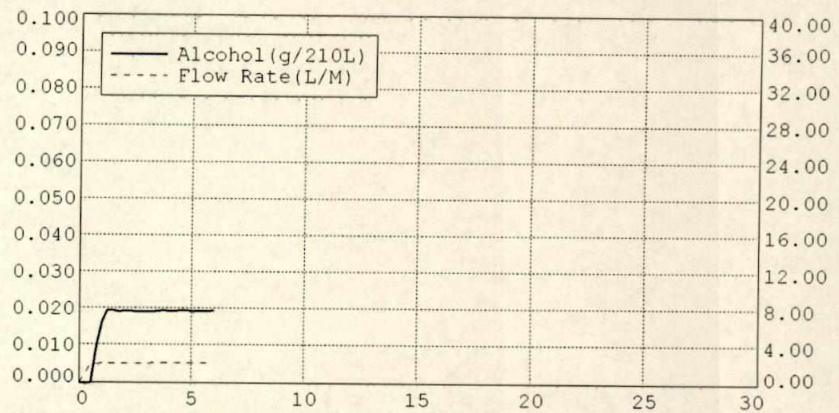
Date: 08/09/2017  
 Time: 10:03:57

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.73: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 744 psi

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.020	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.021	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.020	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.021	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.021	10:09
BLANK TEST	0.000	10:10

Average = 0.0206  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

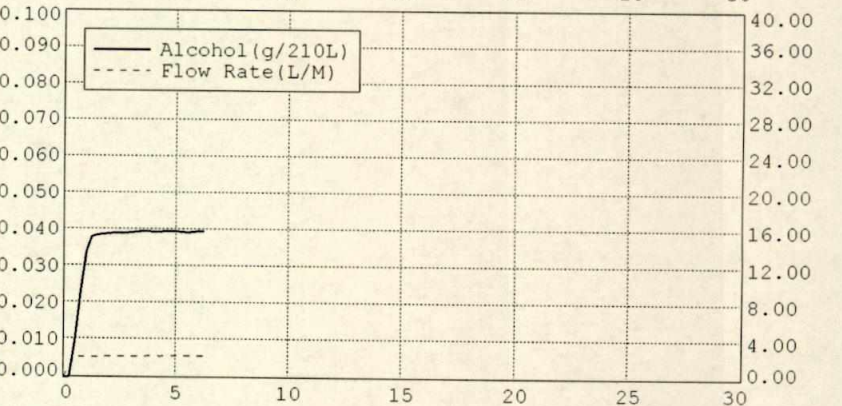
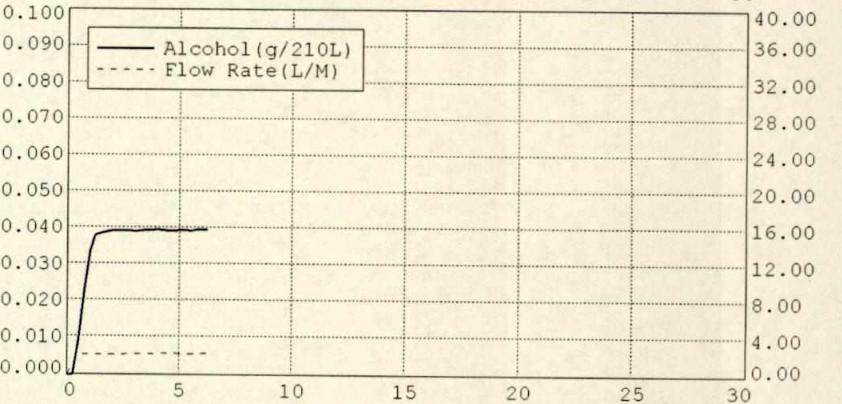
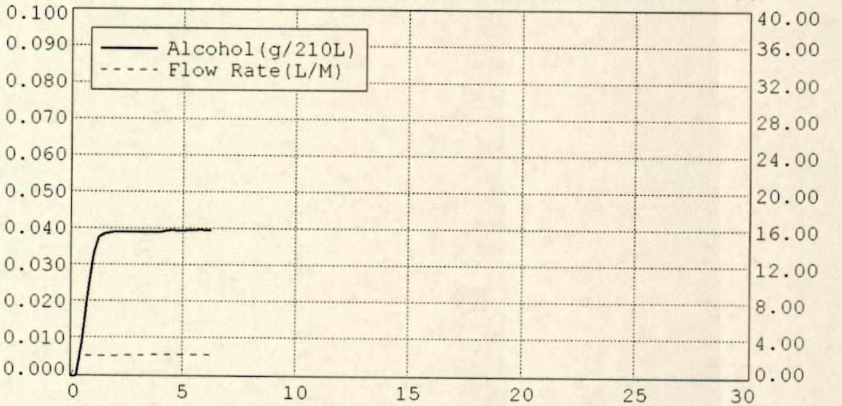
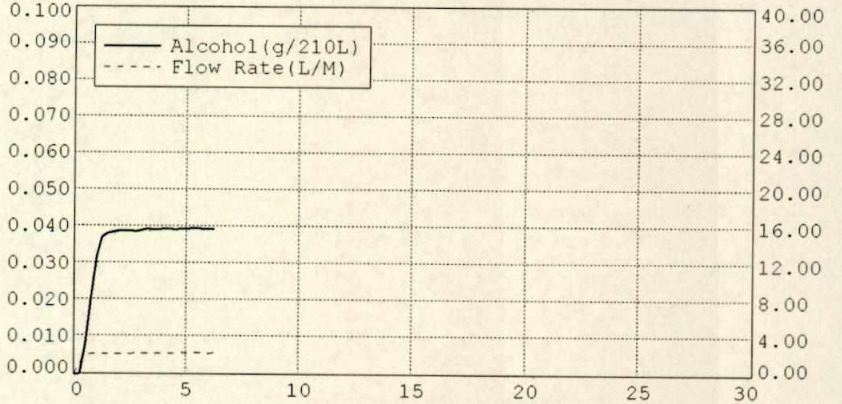
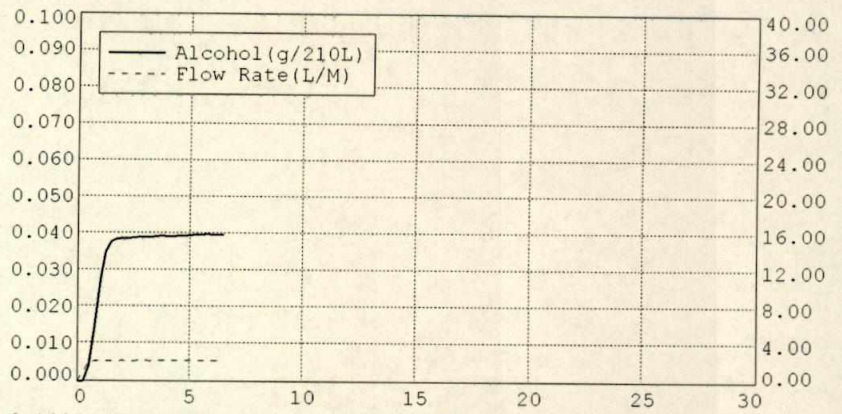
Date: 08/09/2017  
 Time: 10:14:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.73: 0.040  
 LOT #: AG630101  
 EXPIRATION: 10/27/2018  
 TANK PRESSURE: 735 psi

BLANK TEST	0.000	10:16
INTERNAL STANDARD	VERIFIED	10:16
EXTERNAL STANDARD	0.040	10:16
BLANK TEST	0.000	10:17
EXTERNAL STANDARD	0.040	10:18
BLANK TEST	0.000	10:18
EXTERNAL STANDARD	0.041	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.040	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.040	10:21
BLANK TEST	0.000	10:22

Average = 0.0402  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

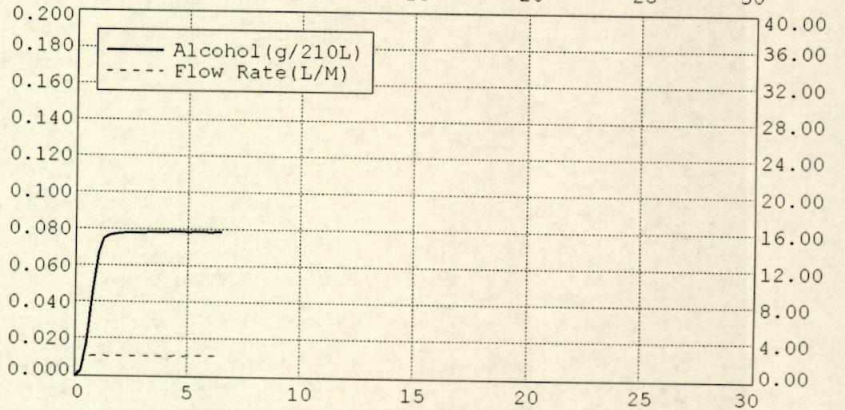
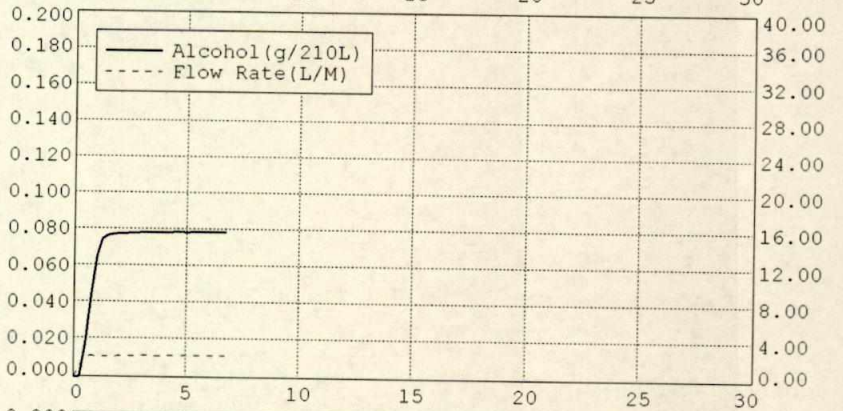
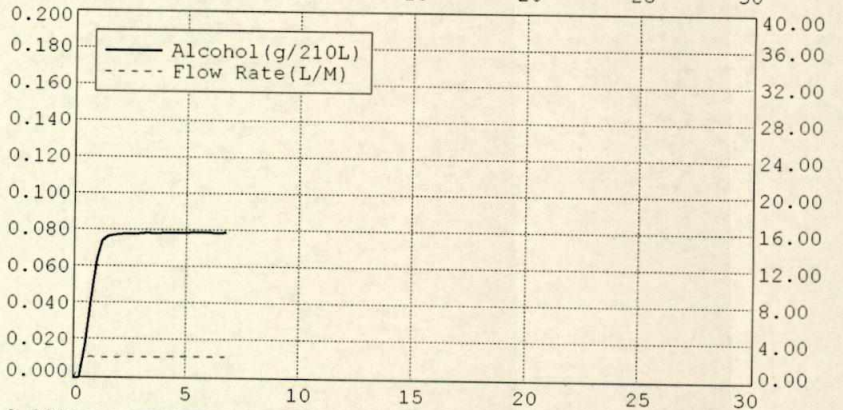
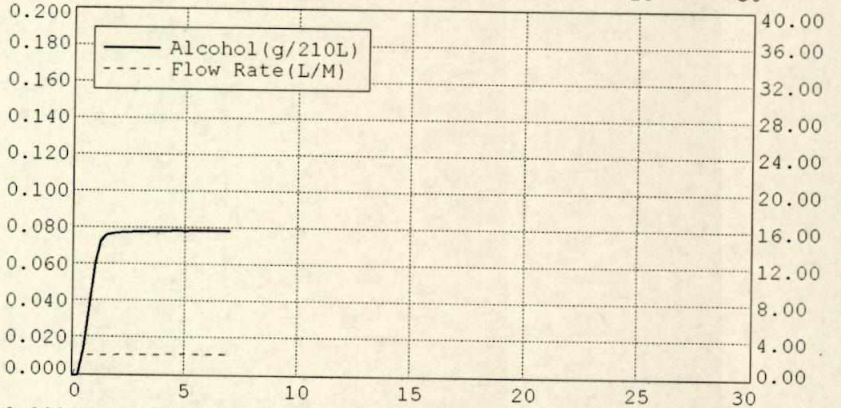
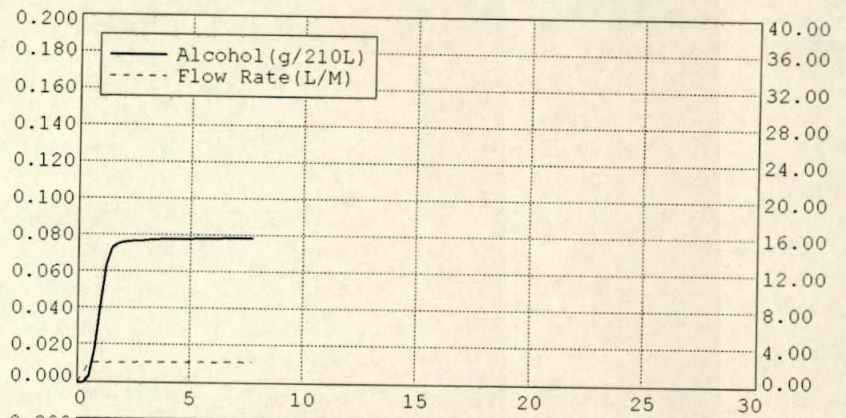
Date: 08/09/2017  
 Time: 12:43:11

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.70: 0.079  
 LOT #: AG634001  
 EXPIRATION: 12/05/2018  
 TANK PRESSURE: 766 psi

BLANK TEST	0.000	12:45
INTERNAL STANDARD	VERIFIED	12:45
EXTERNAL STANDARD	0.080	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.080	12:46
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.080	12:48
BLANK TEST	0.000	12:48
EXTERNAL STANDARD	0.080	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.080	12:50
BLANK TEST	0.000	12:51

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

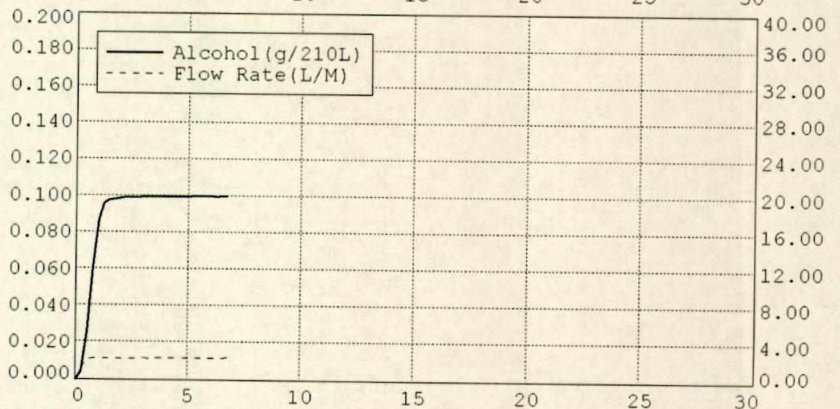
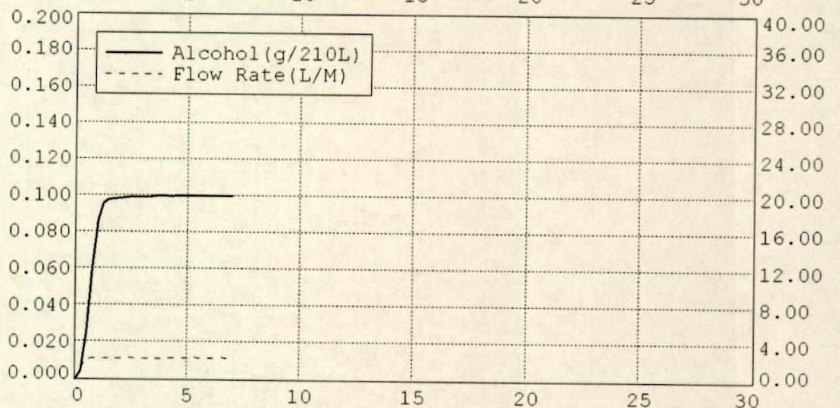
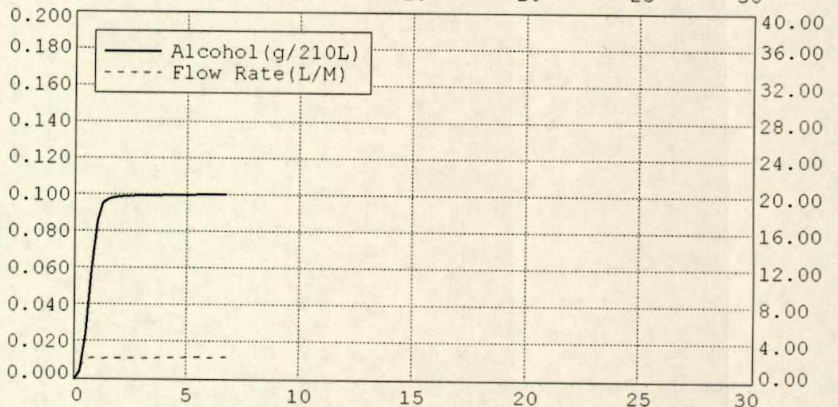
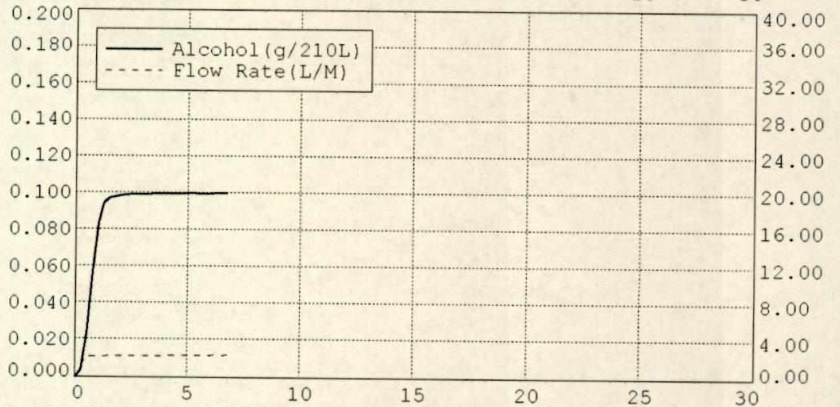
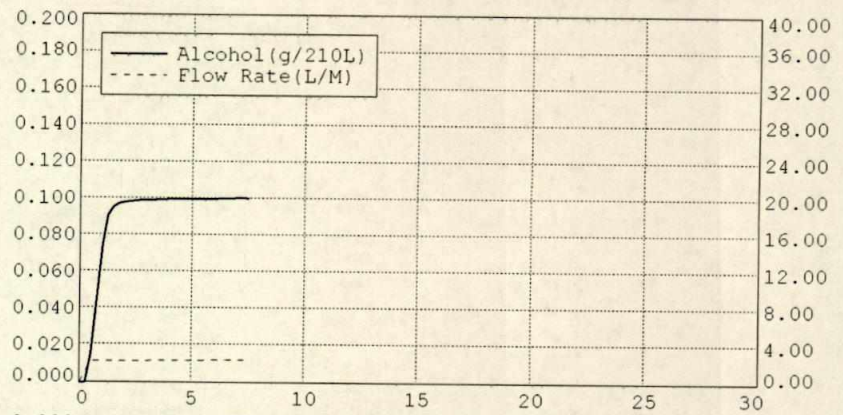
Date: 08/09/2017  
 Time: 13:03:34

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.70: 0.099  
 LOT #: AG629304  
 EXPIRATION: 10/19/2018  
 TANK PRESSURE: 1031 psi

BLANK TEST	0.000	13:04
INTERNAL STANDARD	VERIFIED	13:04
EXTERNAL STANDARD	0.101	13:05
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.101	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.101	13:07
BLANK TEST	0.000	13:08
EXTERNAL STANDARD	0.101	13:08
BLANK TEST	0.000	13:09
EXTERNAL STANDARD	0.101	13:09
BLANK TEST	0.000	13:10

Average = 0.1010  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

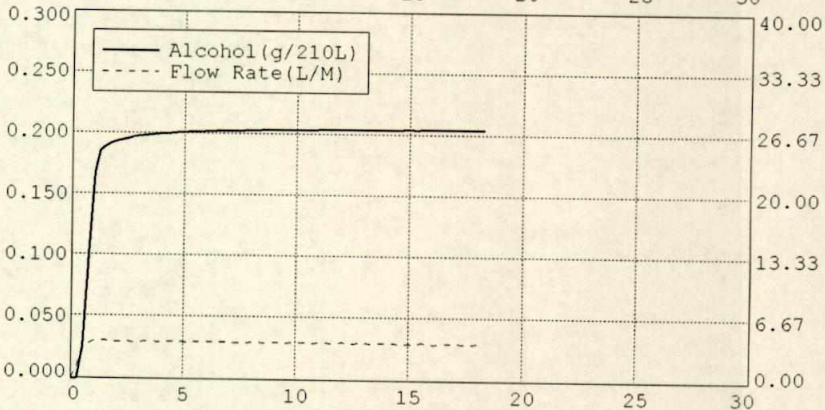
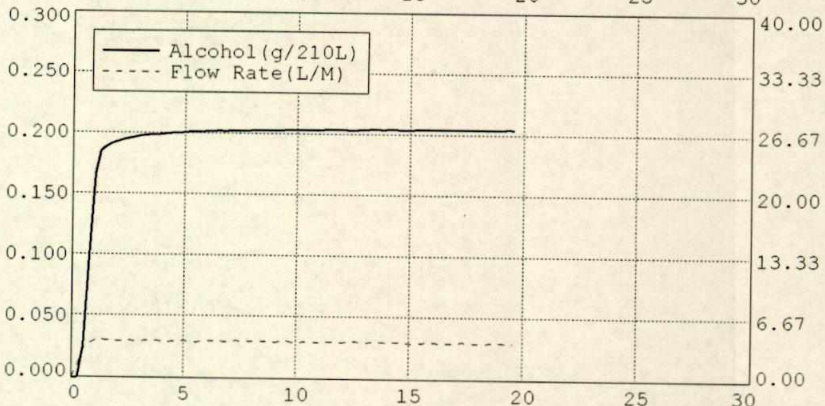
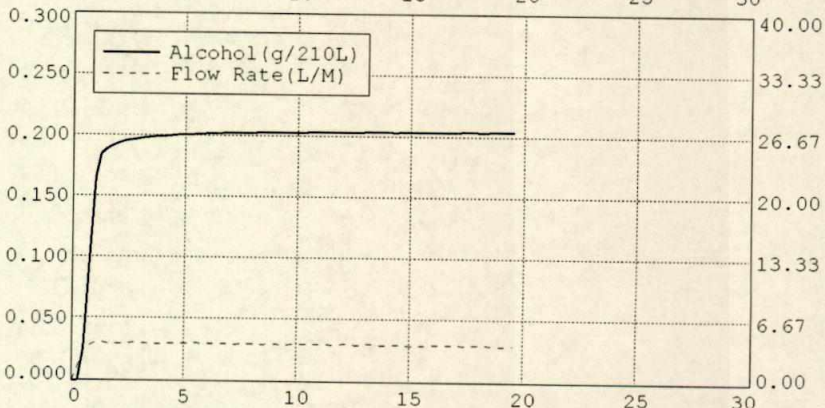
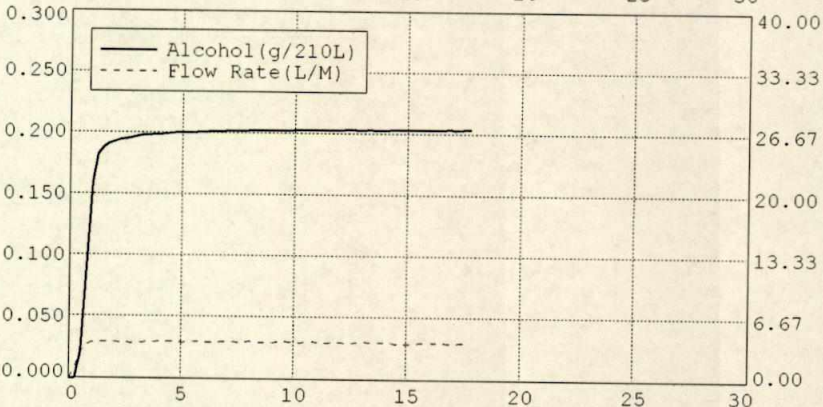
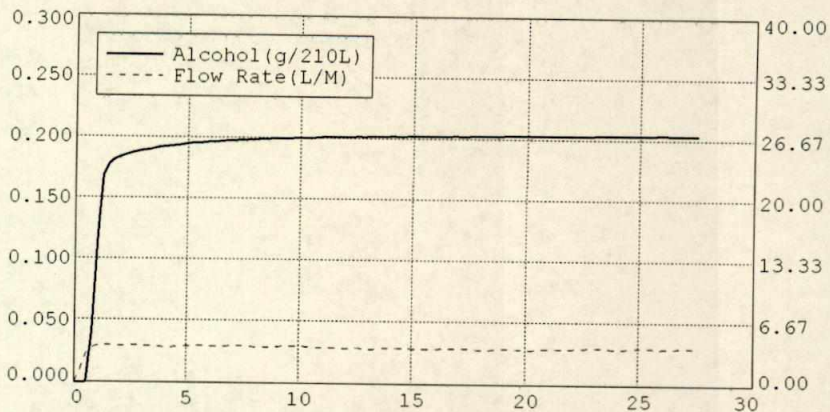
Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

Date: 08/09/2017  
 Time: 13:12:16

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.200  
 LOT #: GUTH 16190  
 EXPIRATION: 08/15/2018

BLANK TEST	0.000	13:15
INTERNAL STANDARD	VERIFIED	13:15
EXTERNAL STANDARD	0.204	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.204	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.204	13:19
BLANK TEST	0.000	13:20
EXTERNAL STANDARD	0.205	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.204	13:21
BLANK TEST	0.000	13:22

Average = 0.2042  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100696

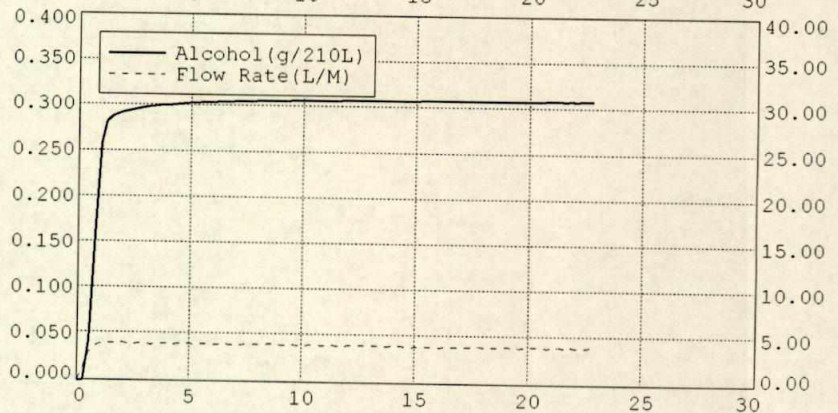
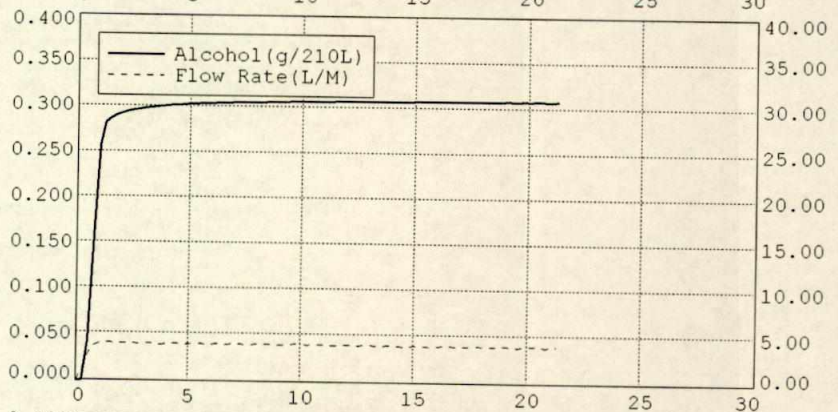
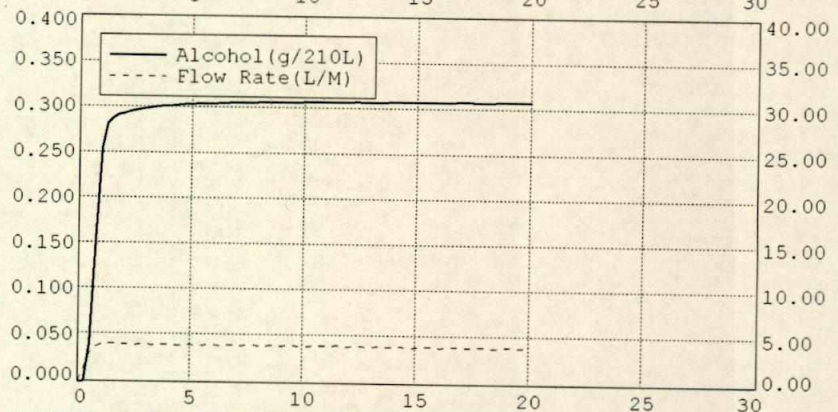
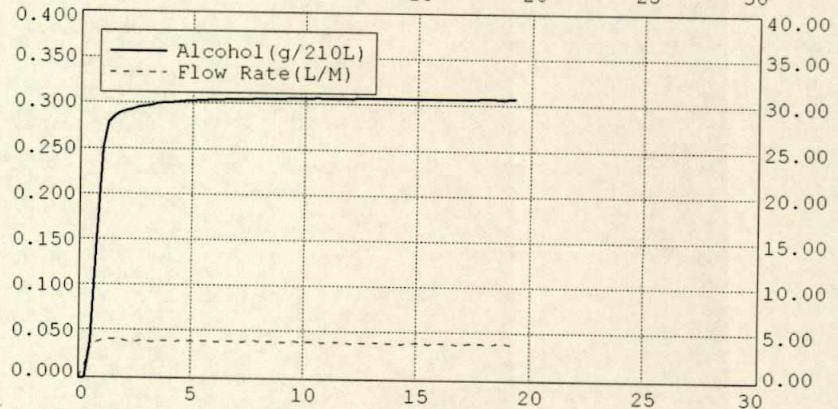
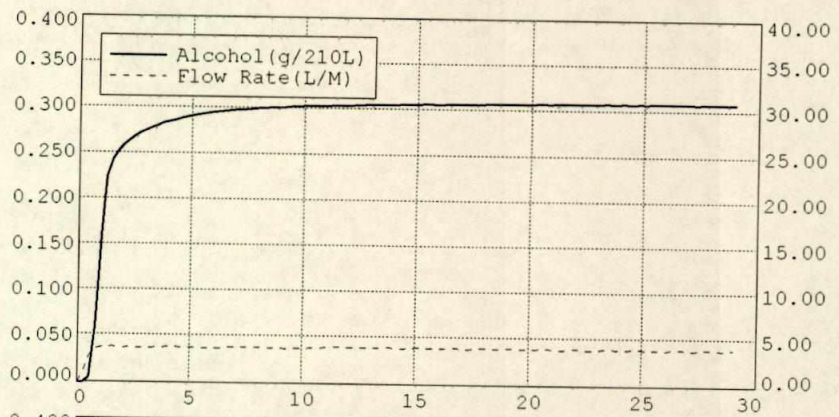
Date: 08/09/2017  
 Time: 13:25:15

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: GUTH 16410  
 EXPIRATION: 12/19/2018

BLANK TEST	0.000	13:26
INTERNAL STANDARD	VERIFIED	13:26
EXTERNAL STANDARD	0.308	13:27
BLANK TEST	0.000	13:28
EXTERNAL STANDARD	0.307	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.307	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.307	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.307	13:32
BLANK TEST	0.000	13:33

Average = 0.3072  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 08:42:59

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

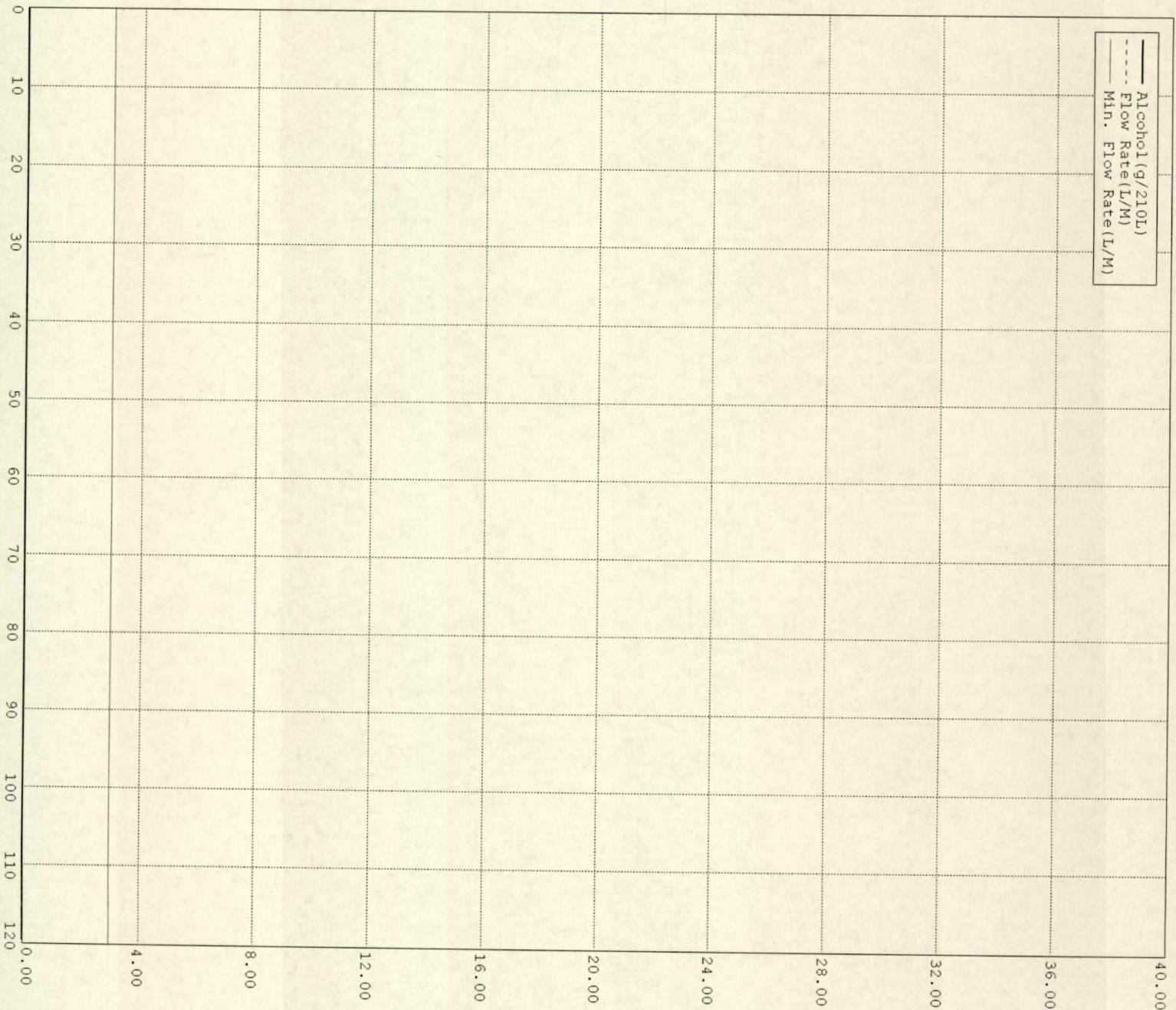
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:44
BLANK TEST	0.000	08:44
INTERNAL STANDARD	VERIFIED	08:44
EXTERNAL STANDARD	0.079	08:44
BLANK TEST	0.000	08:45
SUBJECT SAMPLE	INCOMPLETE	08:47

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SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 08:51:27

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

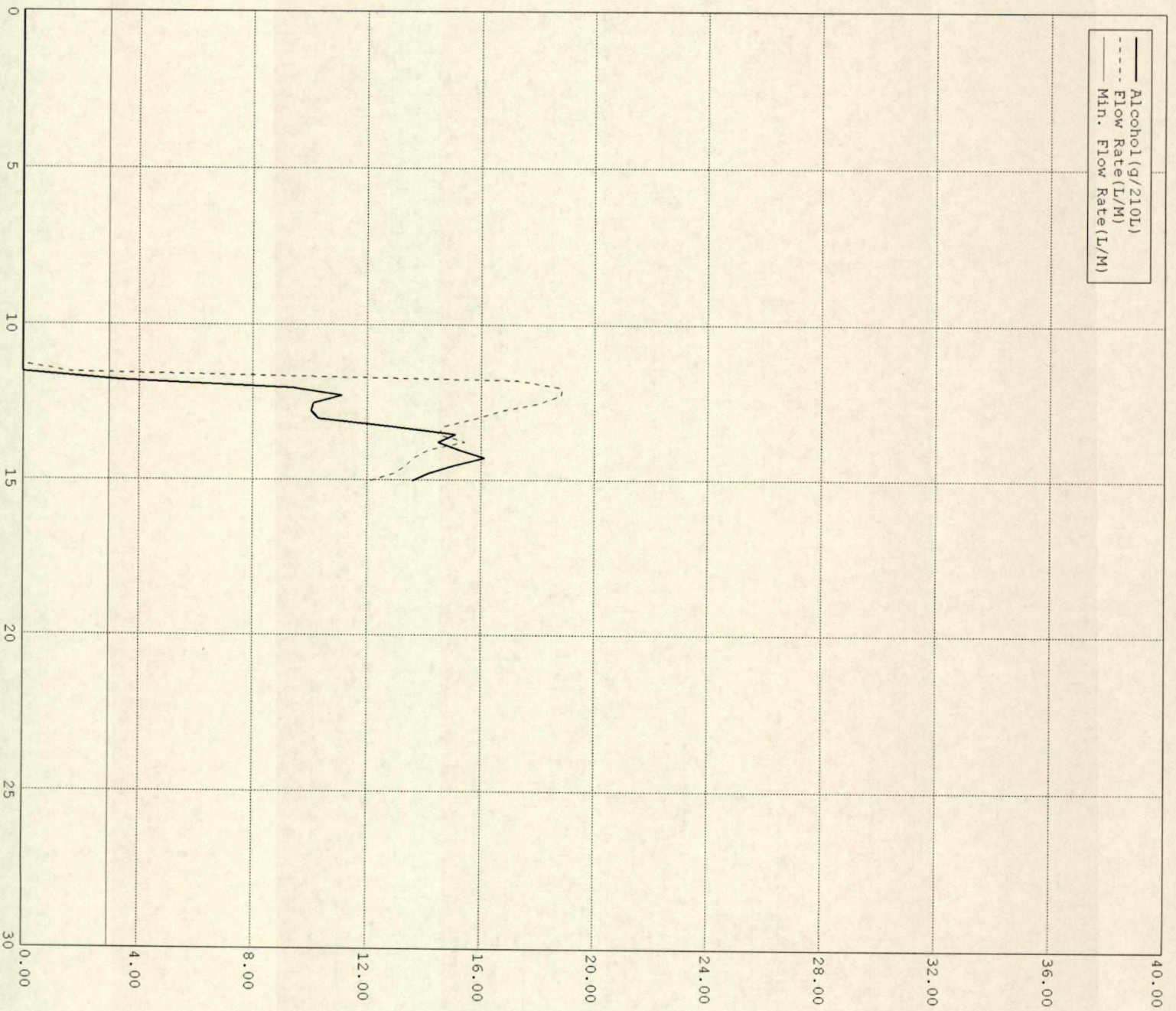
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	08:55
BLANK TEST	0.000	08:55
INTERNAL STANDARD	VERIFIED	08:55
EXTERNAL STANDARD	0.080	08:55
BLANK TEST	0.000	08:56
SUBJECT SAMPLE	INVALID	08:57

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 09:23:32

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 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

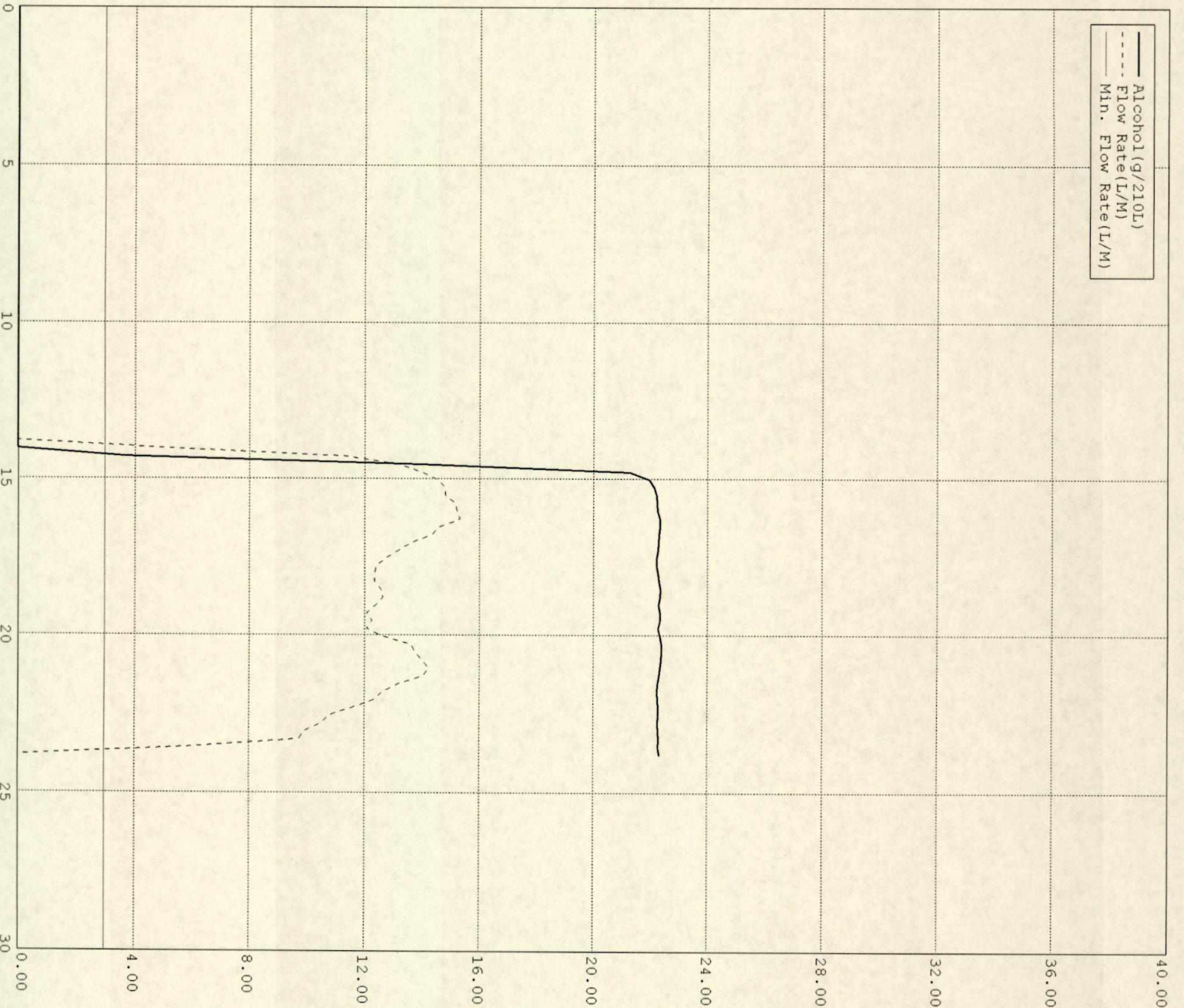
DIAGNOSTIC CHECK  
BLANK TEST PASSED 09:25  
INTERNAL STANDARD VERIFIED 09:25  
Xq = 0.106 (1.78%)  
EXTERNAL STANDARD 0.080 09:25  
X[1] = 0.0801 (0.0006) (0.0030)  
BLANK TEST 0.000 09:26  
SUBJECT SAMPLE XXX 09:27  
X[1] = 0.1121 (-0.0155) (0.0016)

Interference Detected

Filter 2 Avg: 0.0001  
Filter 3 Avg: 0.0028

BMB 8/10/17

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 09:30:06

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

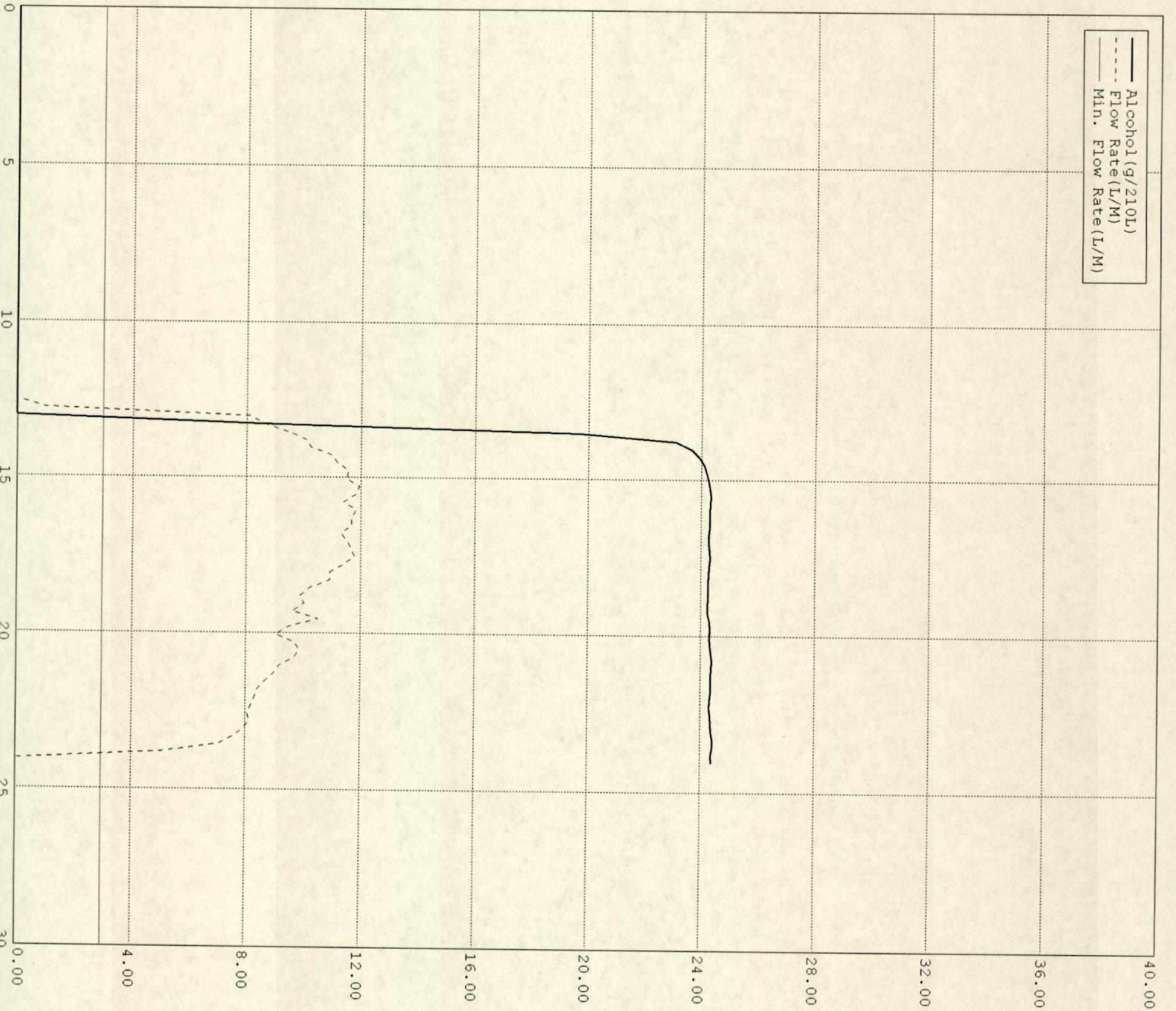
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:31
BLANK TEST	0.000	09:31
INTERNAL STANDARD	VERIFIED	09:31
Xq = 0.105 (1.27%)		
EXTERNAL STANDARD	0.080	09:31
X[1] = 0.0799 (0.0000)	(0.0027)	
BLANK TEST	0.000	09:32
SUBJECT SAMPLE	XXX	09:33
X[1] = 0.1223 (-0.0261)	(0.0014)	

Interference Detected

BMB





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 09:36:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

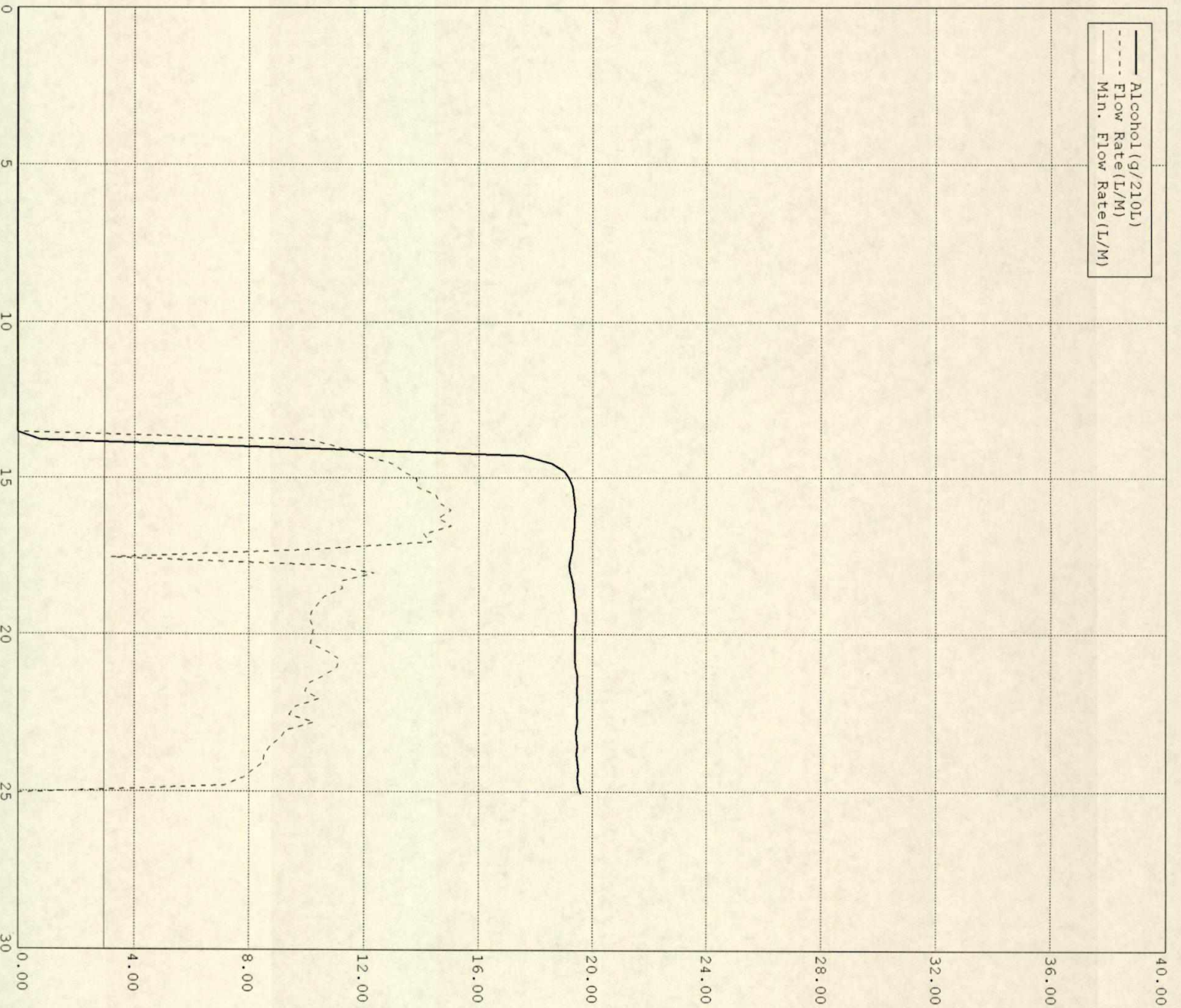
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:39
BLANK TEST	0.000	09:39
INTERNAL STANDARD	VERIFIED	09:39
Xq = 0.105 (1.44%)		
EXTERNAL STANDARD	0.080	09:40
X[1] = 0.0799 (-0.0002)	(0.0027)	
BLANK TEST	0.000	09:41
SUBJECT SAMPLE (Vol=2.05L)	0.098	09:41
X[1] = 0.0984 (0.0022)	(0.0002)	
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.079	09:42
X[1] = 0.0793 (-0.0002)	(0.0029)	
BLANK TEST	0.000	09:43

*BRB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 09:12:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

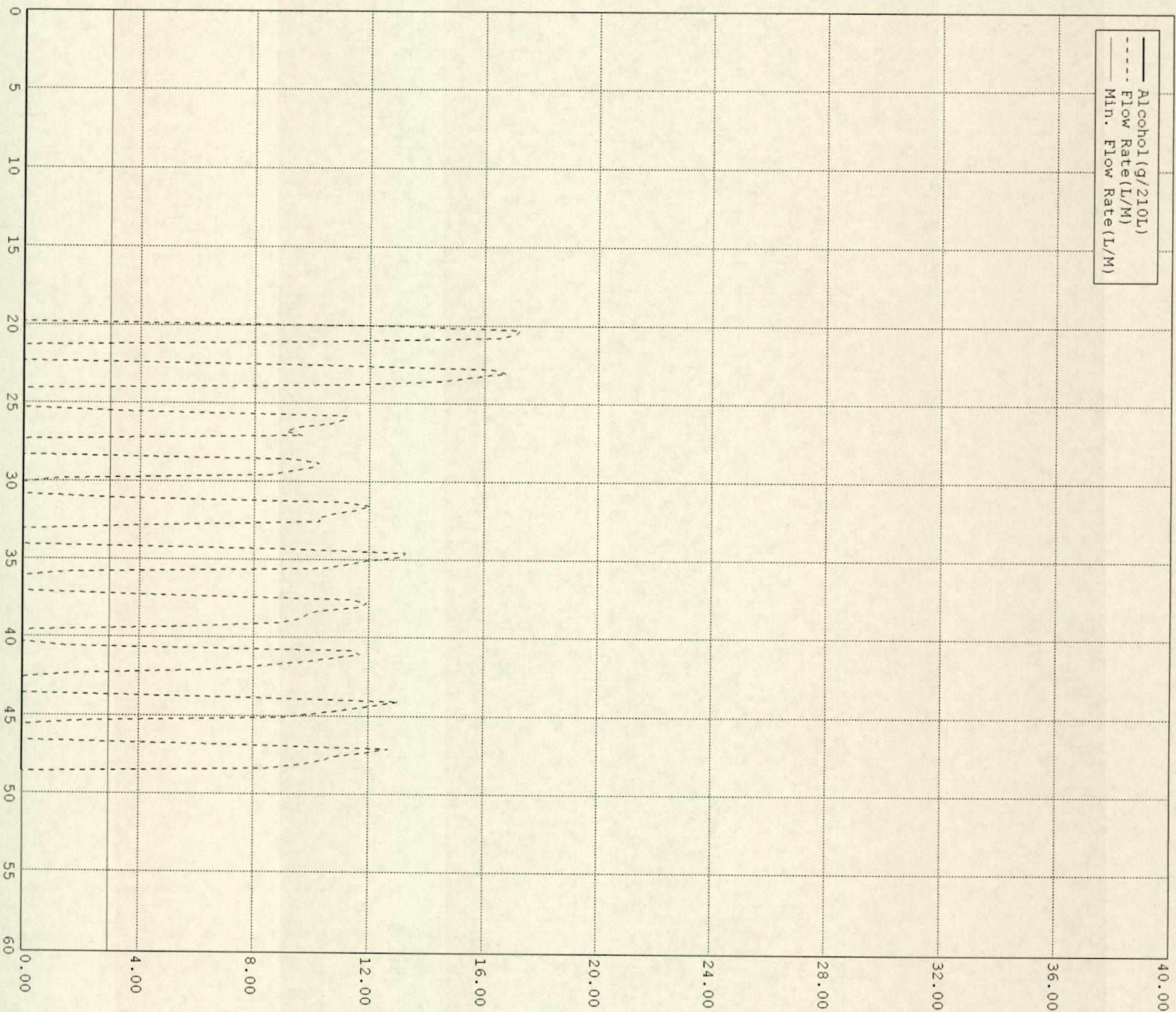
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	09:13
BLANK TEST	0.000	09:13
INTERNAL STANDARD	VERIFIED	09:14
EXTERNAL STANDARD	0.081	09:14
BLANK TEST	0.000	09:15
SUBJECT SAMPLE	XXX	09:16

Maximum Attempts Exceeded

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 08:59:44

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

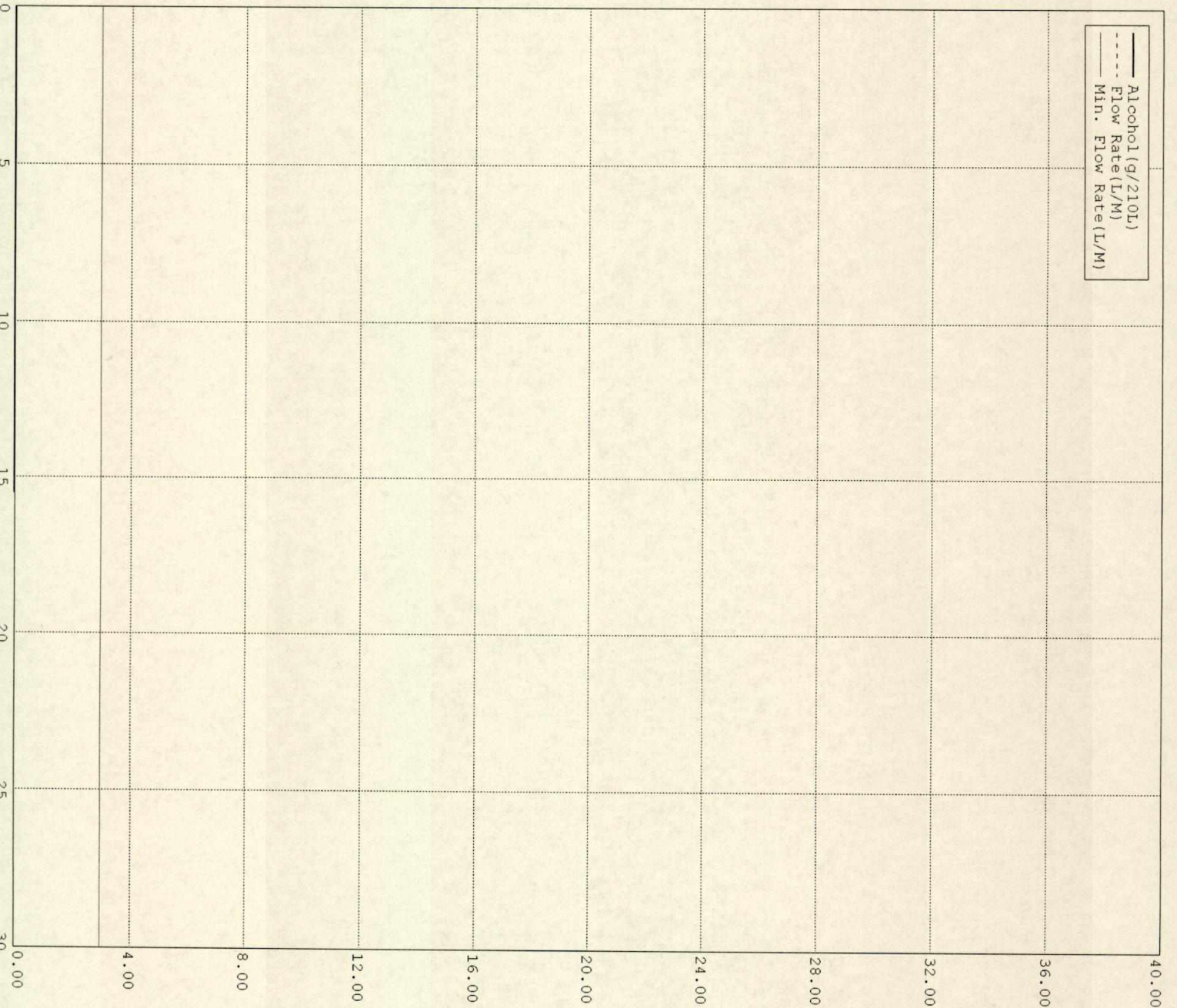
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK  
BLANK TEST PASSED 09:01  
INTERNAL STANDARD VERIFIED 09:01  
EXTERNAL STANDARD 0.080 09:01  
BLANK TEST 0.000 09:02

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100696

Date: 08/10/2017  
Time: 10:00:54

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 29.72: 0.079  
LOT #: AG634001  
EXPIRATION: 12/05/2018

DIAGNOSTIC CHECK	PASSED	10:02
BLANK TEST	0.000	10:02
INTERNAL STANDARD	VERIFIED	10:03
EXTERNAL STANDARD	0.081	10:03
BLANK TEST	0.000	10:04
SUBJECT SAMPLE (Vol=1.58L)	0.000	10:05
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.080	10:06
BLANK TEST	0.000	10:07

BMB

