

# 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 100406 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 AG600504 Exp 3/25/18
- 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 09/14/16
- 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 116160 Level 0.100 Exp 7/19/18
  - 1. Simulator S/N SD1199 Date Calibrated 9/13/16
- ii. Isopropanol - Mnf Guth Lot 116160 Level 0.100 Exp 7/19/18
  - 1. Simulator S/N SD1088 Date Calibrated 9/13/16
- iii. Negative Control - Mnf Guth Lot 116160 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: 100406  
-----

Date: 08/08/2017  
Time: 13:44:26

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 = 44.6°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.76 V PASSED  
(1.09 V - 2.55 V)  
Cooler Voltage = 1.76 V PASSED  
(1.06 V - 2.46 V)  
Bias Voltage = 80 V PASSED  
(47 V - 111 V)  
Chopper Freq = 536 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 30.0 in

PUMP INFO

Flow Rate = 4.921 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 = 0.104 2.87% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100406  
-----

Date: 08/08/2017  
Time: 1:49 PM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 44.4°C

Current Barometer 29.9 in  
Volume (Ltr) 1.55

Settings  
Lamp: 1.82 V  
Bias: 80 V  
Cooler: 1.76 V  
Chopper: 534 Hz

Voltages (V)  
Flow: 1.07 V  
Detector: -0.026 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100406  
-----

Date: 10/05/2011  
Time: 09:07:21

Ca	=	0.1000			
CAL	=	0.988221	0.800	<=	CAL < 1.200
b1	=	0.0007	0.0000	<=	b1 < 0.0040
b2	=	0.0060	0.0010	<=	b2 < 0.0100
b3	=	0.0003	0.0000	<=	b3 < 0.0040
Xq	=	0.1008	0.0500	<=	Xq < 0.2000
a21	=	1.202874	1.050	<=	a21 < 1.300
a31	=	0.480296	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/09/2017  
Time: 08:46:19

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

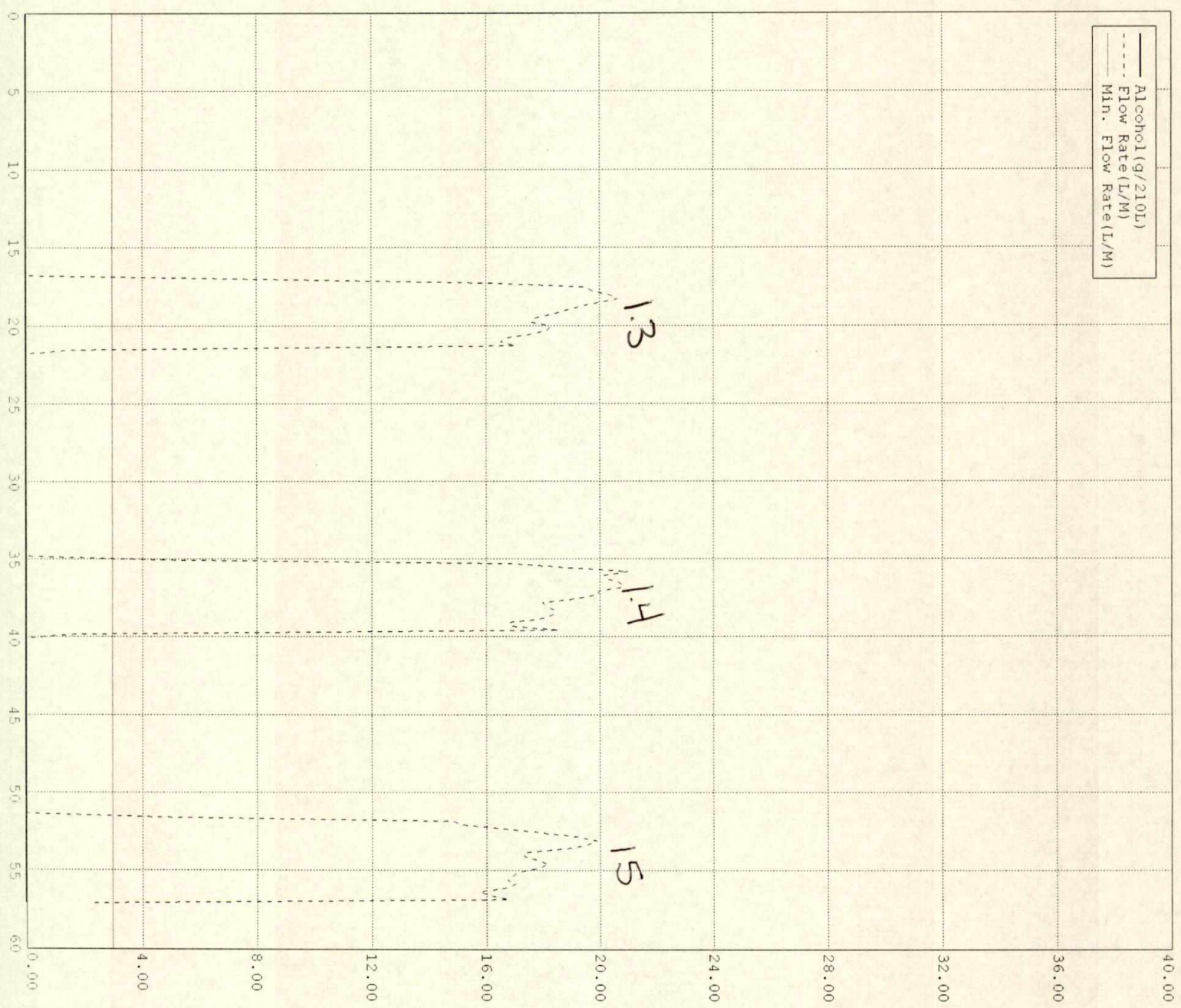
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	08:47
BLANK TEST	0.000	08:47
INTERNAL STANDARD	VERIFIED	08:47
EXTERNAL STANDARD	0.080	08:47
BLANK TEST	0.000	08:48
BLANK TEST	0.000	08:48
SUBJECT SAMPLE (Vol=1.54L)	0.000	08:49
BLANK TEST	0.000	08:50
EXTERNAL STANDARD	0.080	08:50
BLANK TEST	0.000	08:51

*BMB*



LINEARITY CHECK

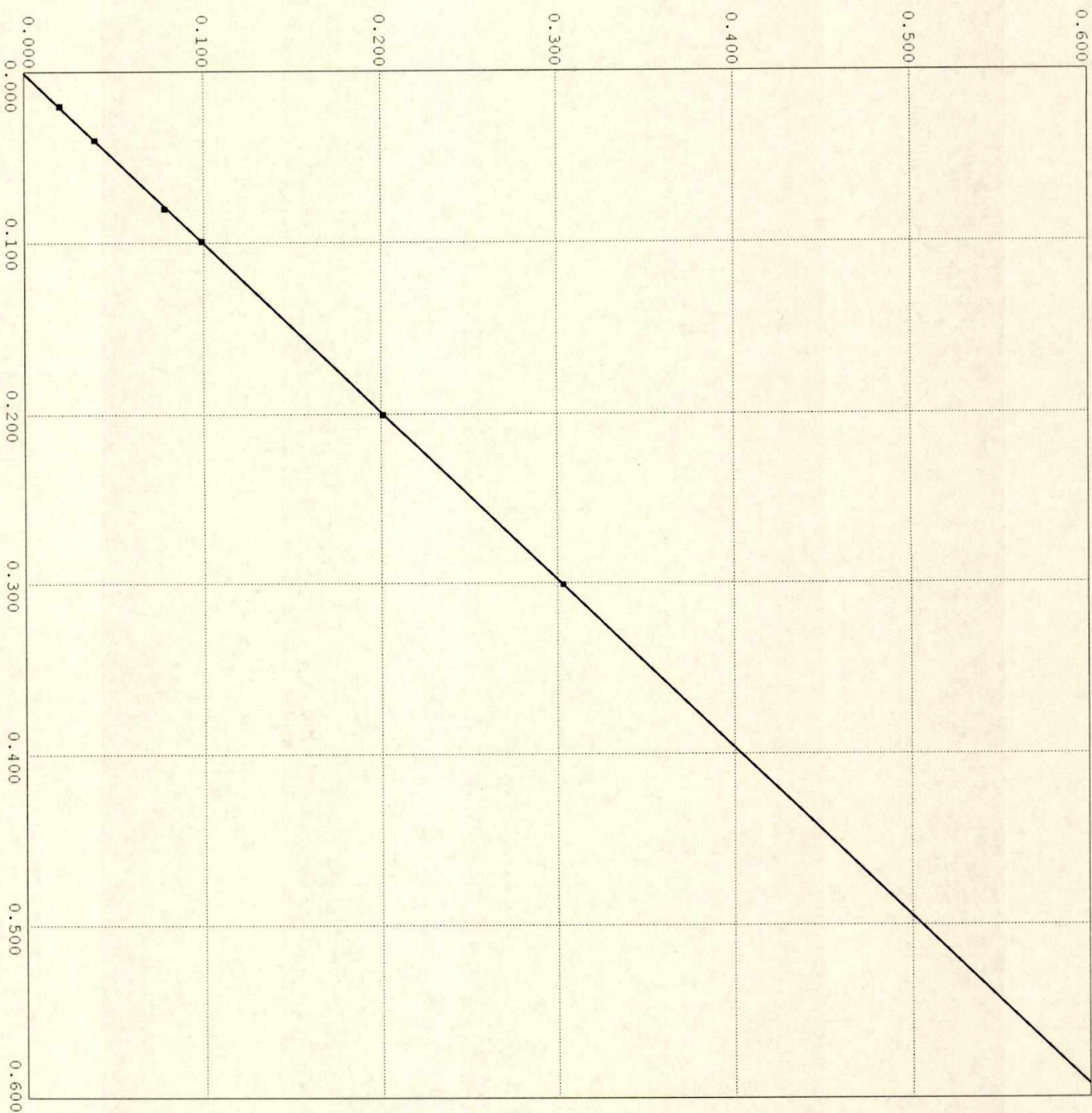
Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/09/2017  
Time: 09:26:12

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0400	0.0000
0.080	0.0792	0.0004
0.099	0.1000	0.0000
0.200	0.2020	0.0000
0.300	0.3040	0.0010

SLOPE = 1.014517  
 $R^2$  = 0.999958



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

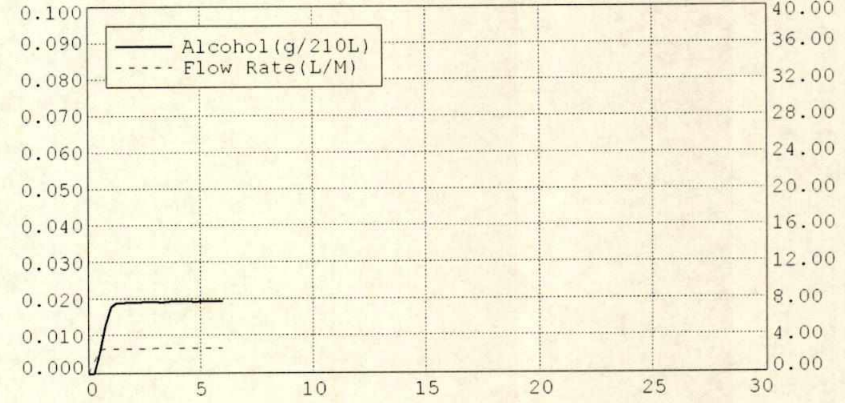
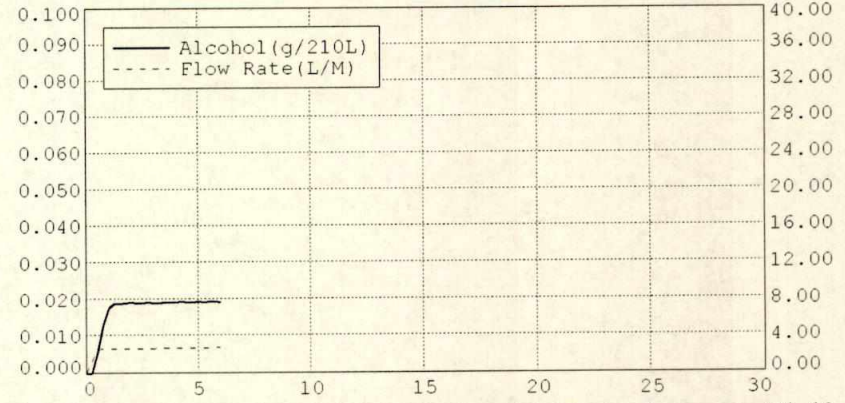
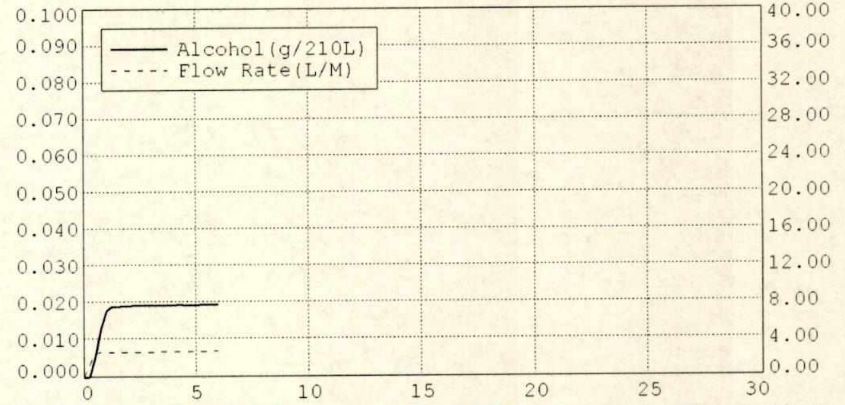
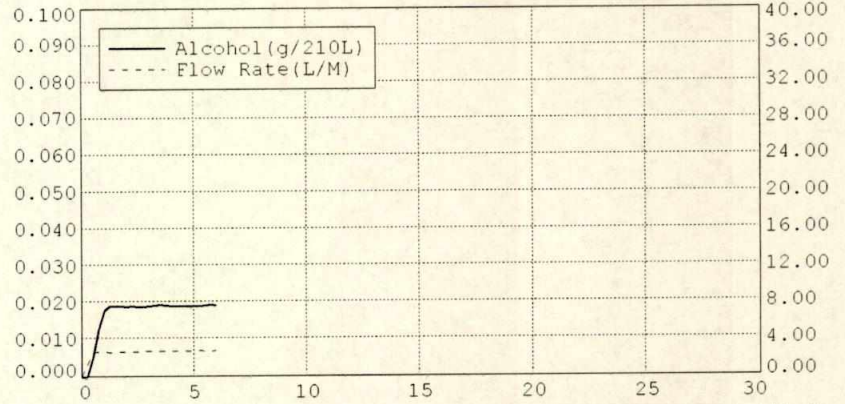
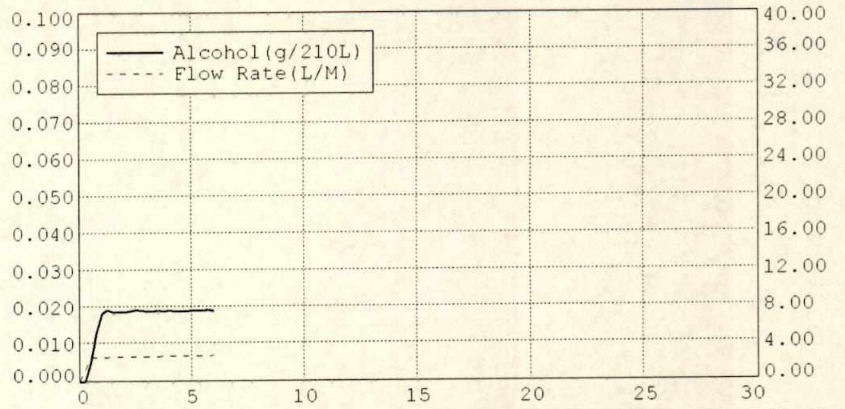
Date: 08/09/2017  
 Time: 09:26:13

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.74: 0.020  
 LOT #: AG616504  
 EXPIRATION: 06/13/2018  
 TANK PRESSURE: 765 psi

BLANK TEST	0.000	09:27
INTERNAL STANDARD	VERIFIED	09:27
EXTERNAL STANDARD	0.020	09:28
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.020	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.020	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.021	09:31
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.021	09:32
BLANK TEST	0.000	09:33

Average = 0.0204  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

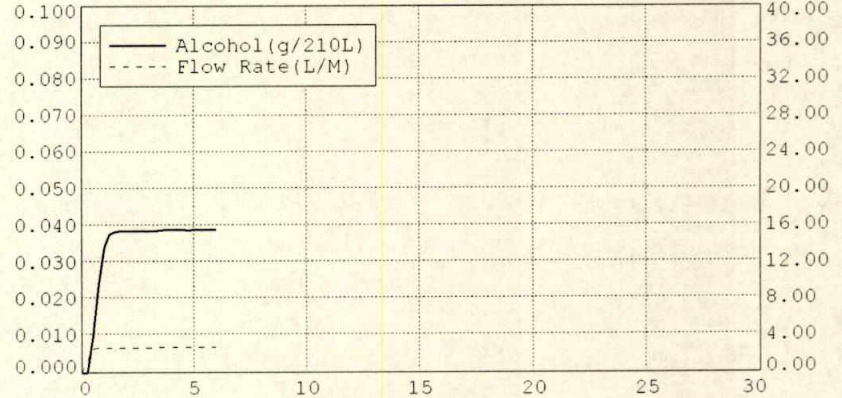
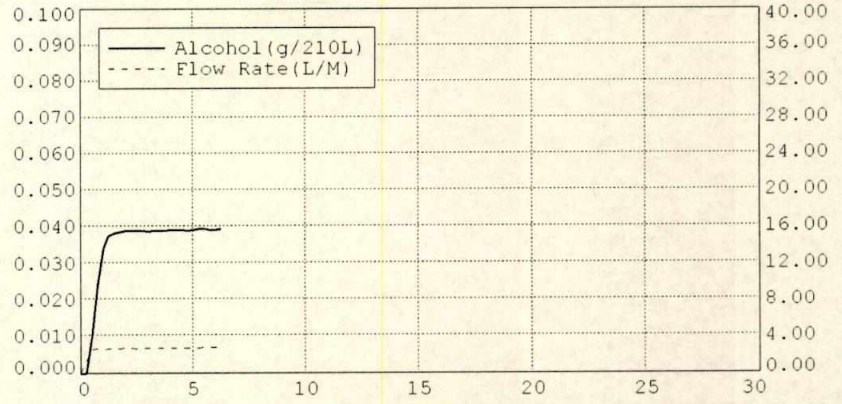
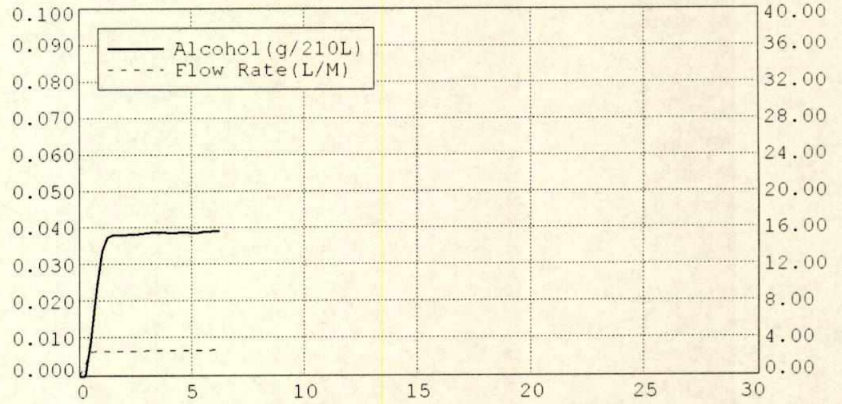
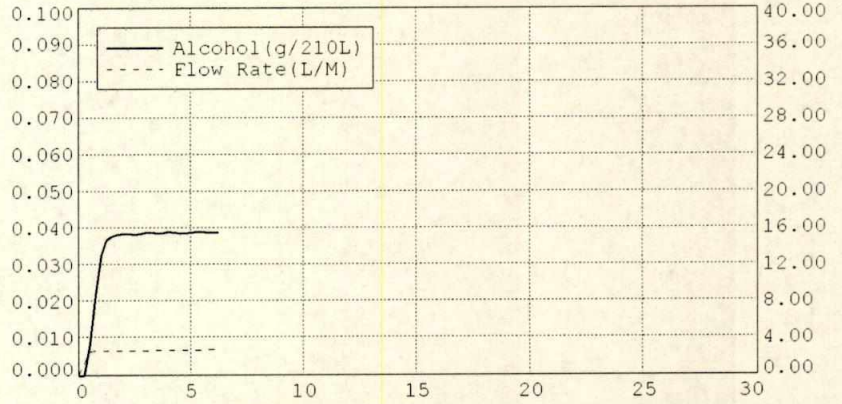
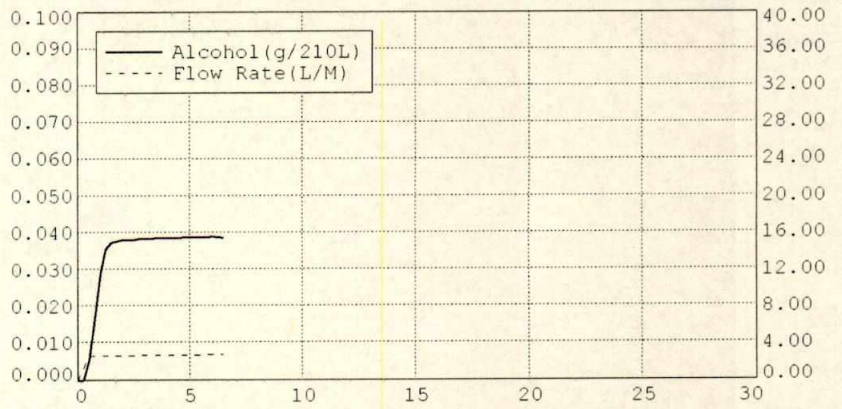
Date: 08/09/2017  
 Time: 09:40:25

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.74: 0.040  
 LOT #: AG630101  
 EXPIRATION: 10/27/2018  
 TANK PRESSURE: 761 psi

BLANK TEST	0.000	09:42
INTERNAL STANDARD	VERIFIED	09:42
EXTERNAL STANDARD	0.040	09:43
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.040	09:44
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.040	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.040	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.040	09:47
BLANK TEST	0.000	09:48

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

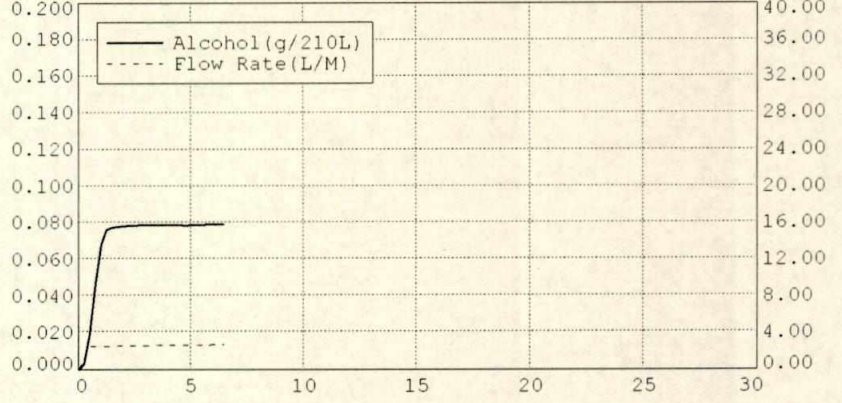
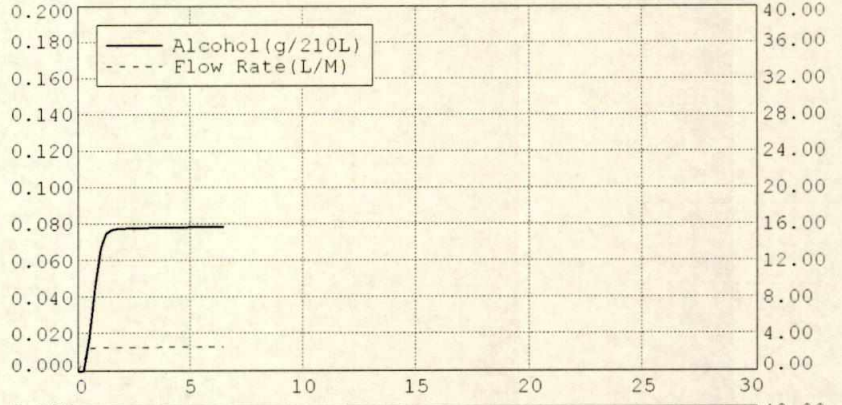
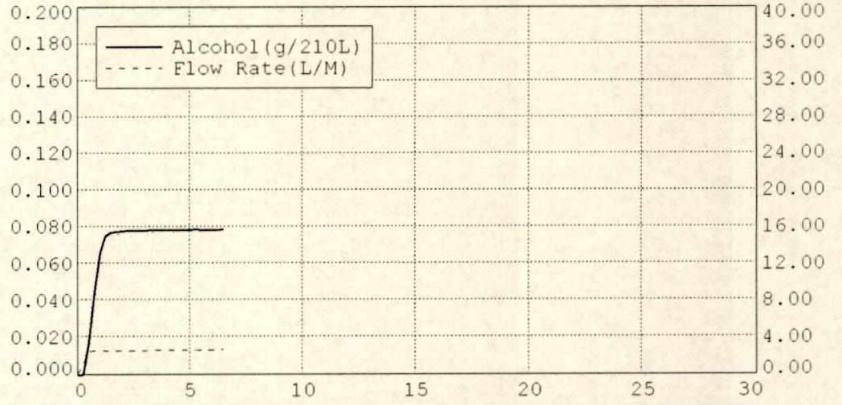
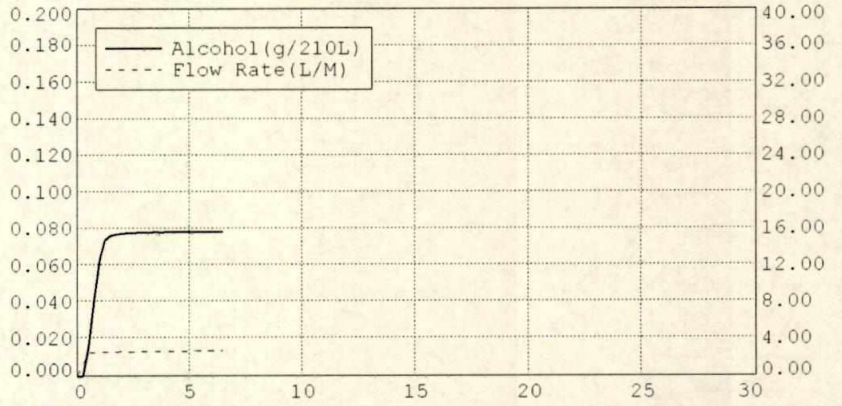
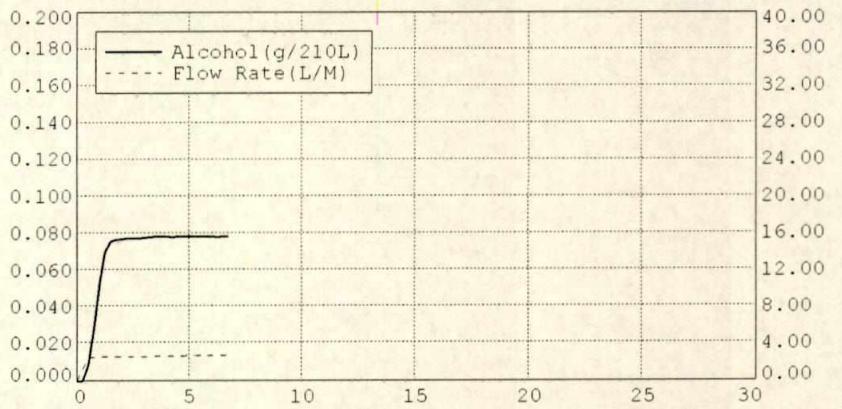
Date: 08/09/2017  
 Time: 09:54:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.74: 0.080  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 661 psi

BLANK TEST	0.000	09:57
INTERNAL STANDARD	VERIFIED	09:57
EXTERNAL STANDARD	0.079	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.079	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.079	10:00
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.079	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.080	10:02
BLANK TEST	0.000	10:03

Average = 0.0792  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

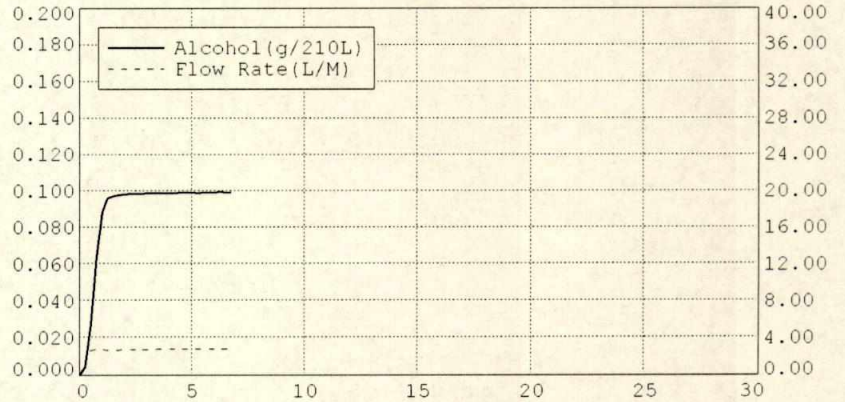
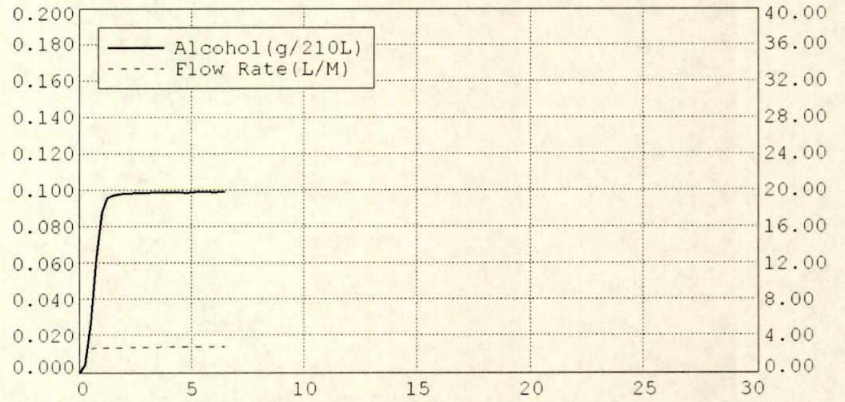
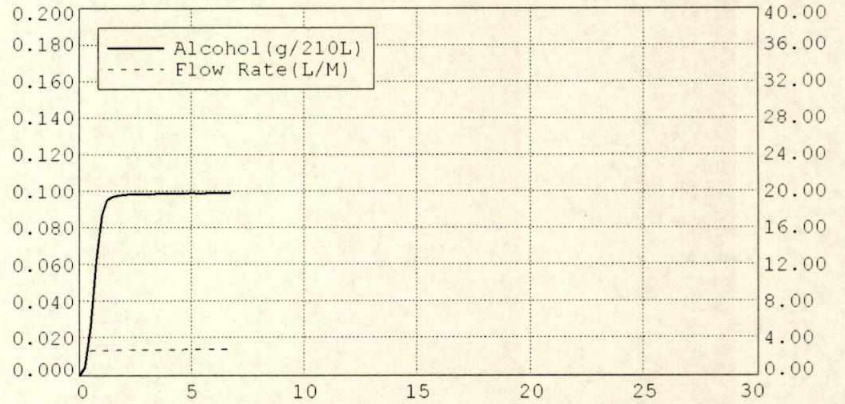
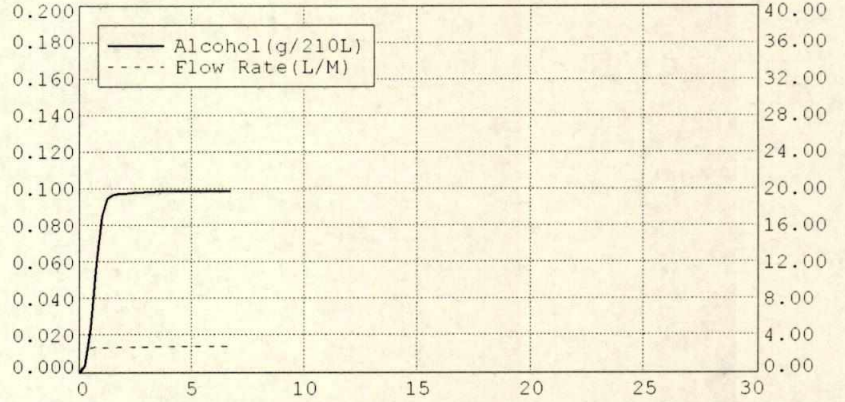
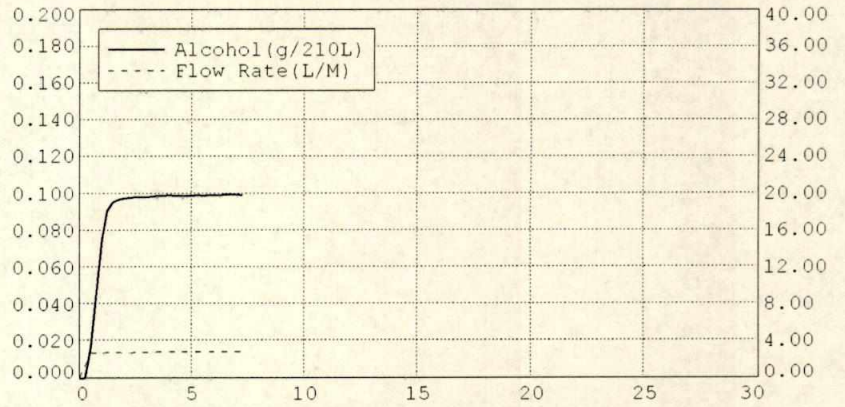
Date: 08/09/2017  
Time: 10:04:28

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
TARGET AT 29.74: 0.099  
LOT #: AG629304  
EXPIRATION: 10/19/2018  
TANK PRESSURE: 1061 psi

BLANK TEST	0.000	10:08
INTERNAL STANDARD	VERIFIED	10:08
EXTERNAL STANDARD	0.100	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.100	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.100	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.100	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.100	10:13
BLANK TEST	0.000	10:14

Average = 0.1000  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

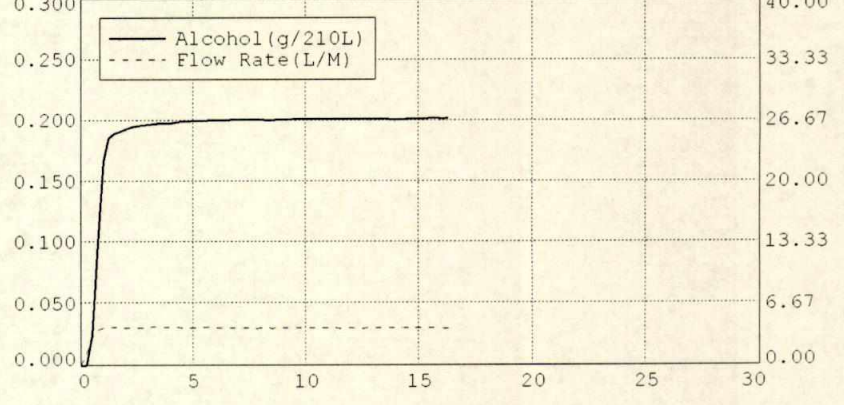
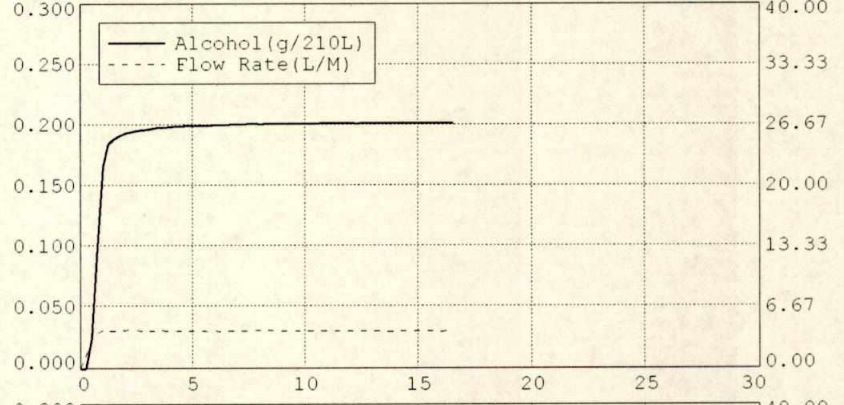
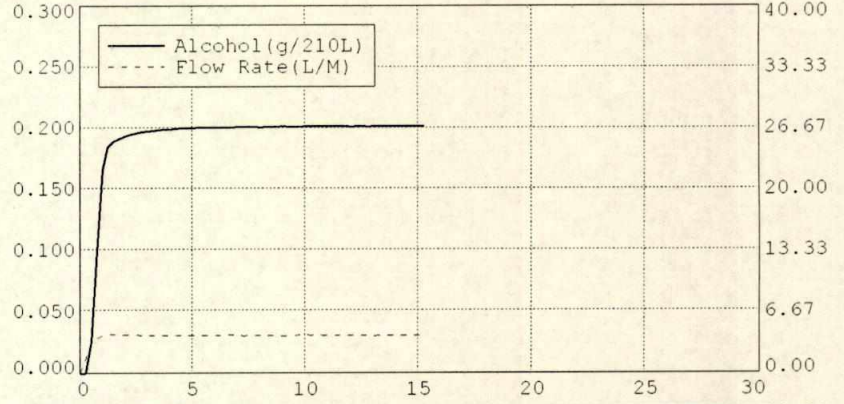
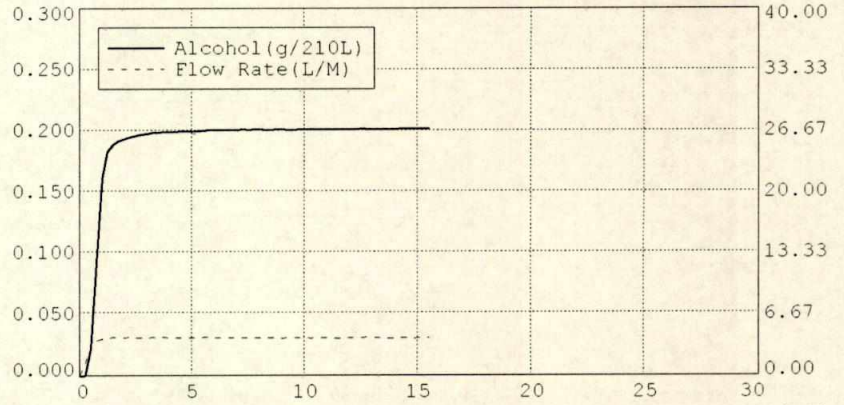
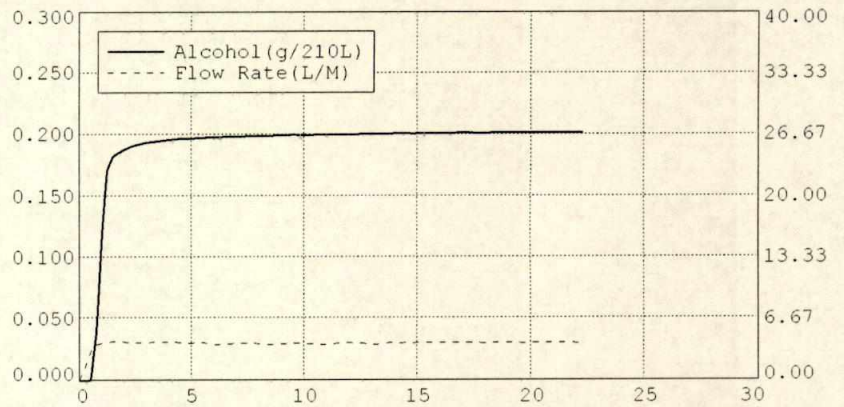
Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

Date: 08/09/2017  
 Time: 12:32:38

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

BLANK TEST	0.000	12:37
INTERNAL STANDARD	VERIFIED	12:37
EXTERNAL STANDARD	0.202	12:38
BLANK TEST	0.000	12:39
EXTERNAL STANDARD	0.202	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.202	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.202	12:42
BLANK TEST	0.000	12:42
EXTERNAL STANDARD	0.202	12:43
BLANK TEST	0.000	12:44

Average = 0.2020  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

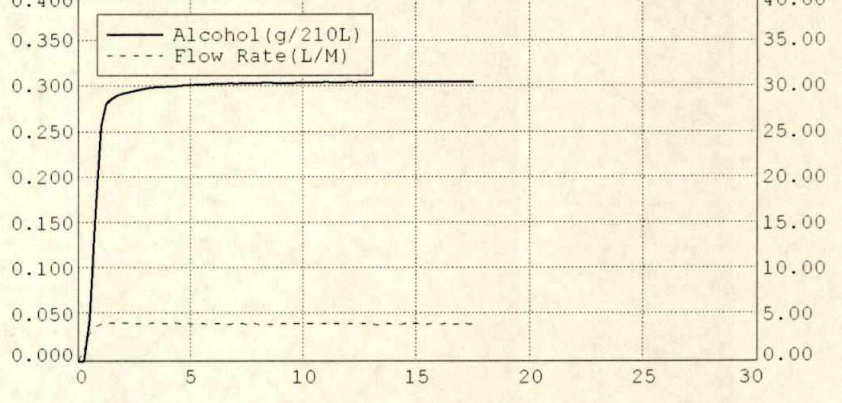
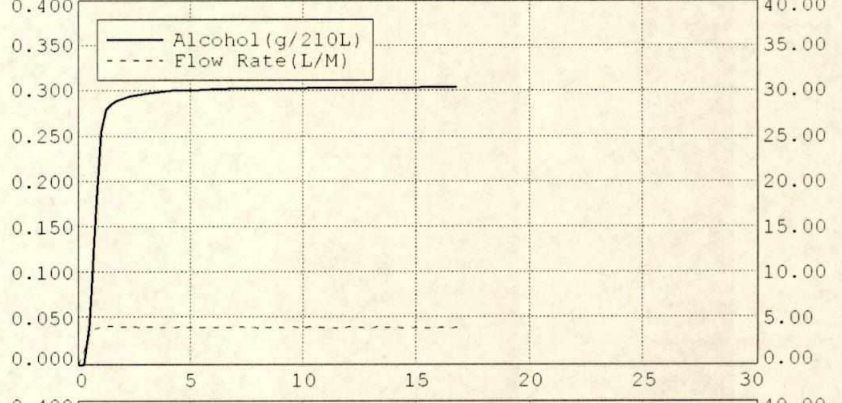
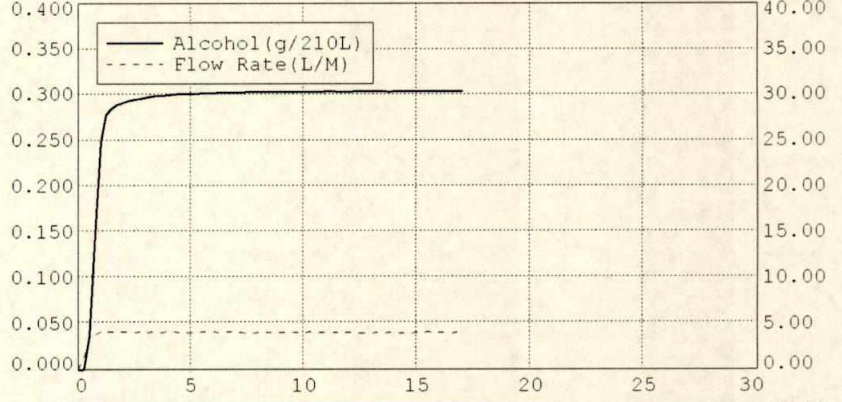
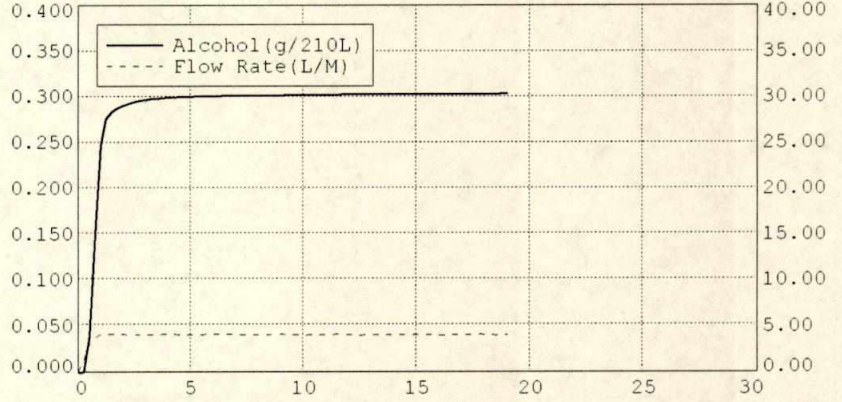
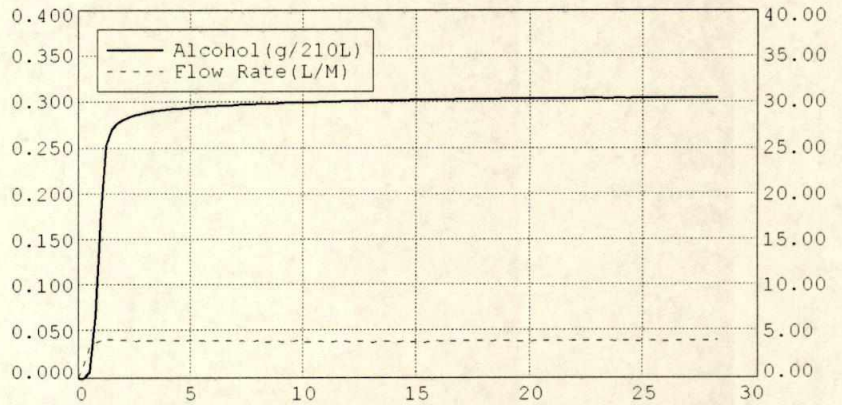
Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

Date: 08/09/2017  
 Time: 12:53:44

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

BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
EXTERNAL STANDARD	0.305	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.303	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.303	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.304	12:59
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.305	13:00
BLANK TEST	0.000	13:01

Average = 0.3040  
 Std Dev = 0.0010



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 08:34:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

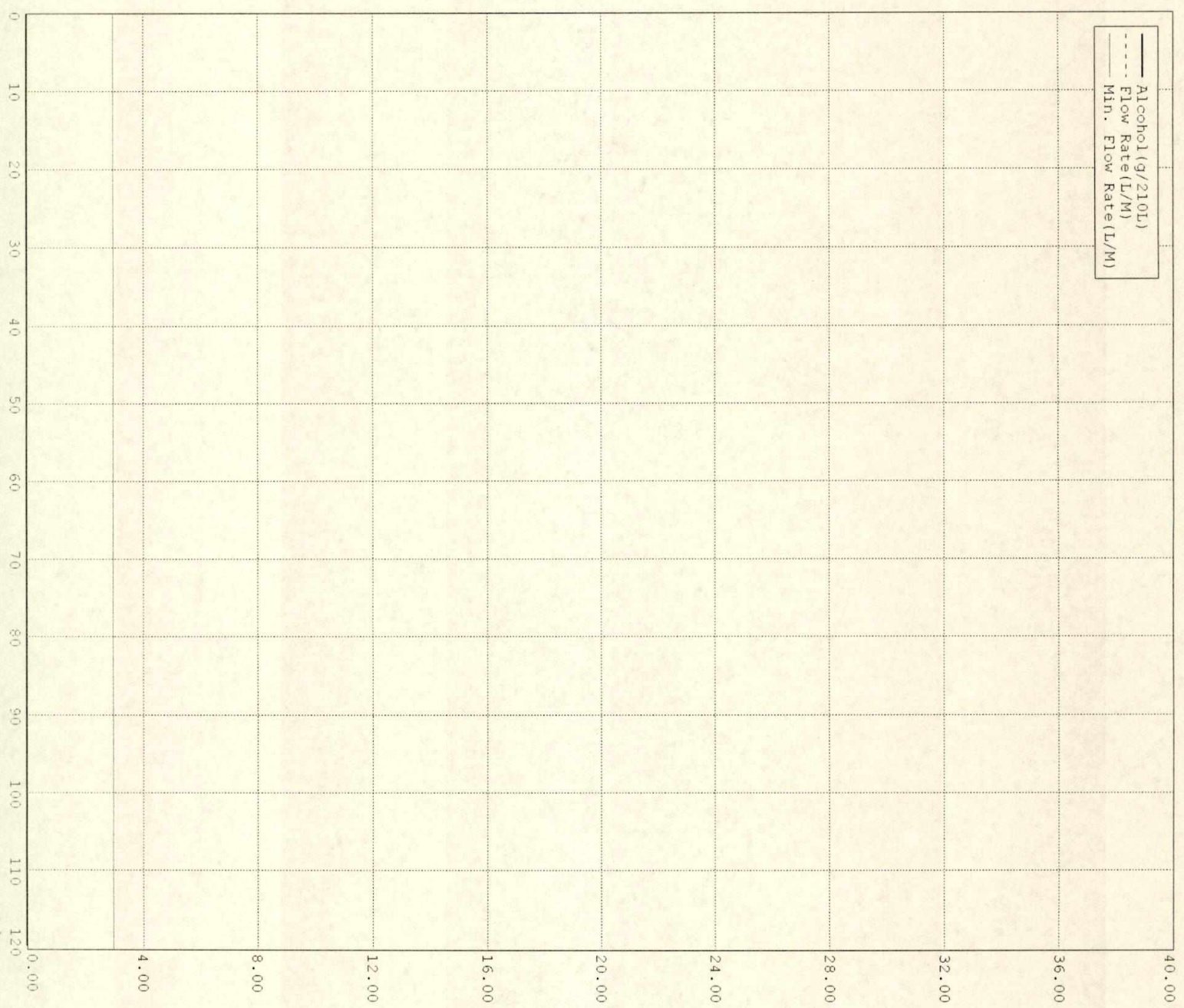
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	08:36
BLANK TEST	0.000	08:36
INTERNAL STANDARD	VERIFIED	08:36
EXTERNAL STANDARD	0.079	08:36
BLANK TEST	0.000	08:37
SUBJECT SAMPLE	INCOMPLETE	08:39

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 08:46:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

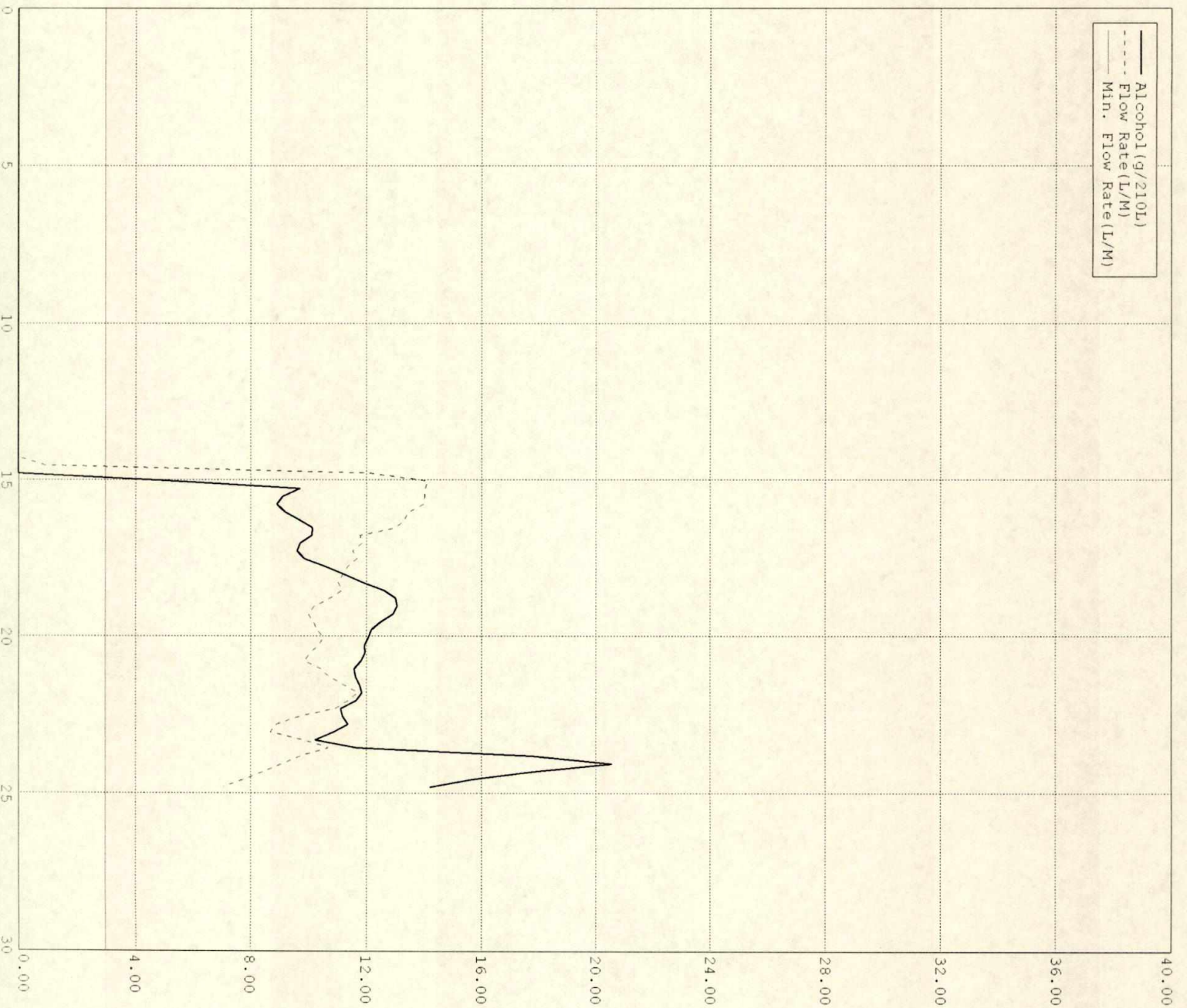
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	08:47
BLANK TEST	0.000	08:48
INTERNAL STANDARD	VERIFIED	08:48
EXTERNAL STANDARD	0.079	08:48
BLANK TEST	0.000	08:49
SUBJECT SAMPLE	INVALID	08:49

Handwritten signature: BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt : 100406

Date: 08/10/2017  
Time: 09:07:14

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 29.73: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:10
BLANK TEST	0.000	09:10
INTERNAL STANDARD	VERIFIED	09:10
Xq = 0.103 (2.61%)		
EXTERNAL STANDARD	0.080	09:10
X[1] = 0.0800 (0.0012)	(0.0033)	
BLANK TEST	0.000	09:11
SUBJECT SAMPLE	XXX	09:12
X[1] = 0.1121 (-0.0158)	(0.0019)	

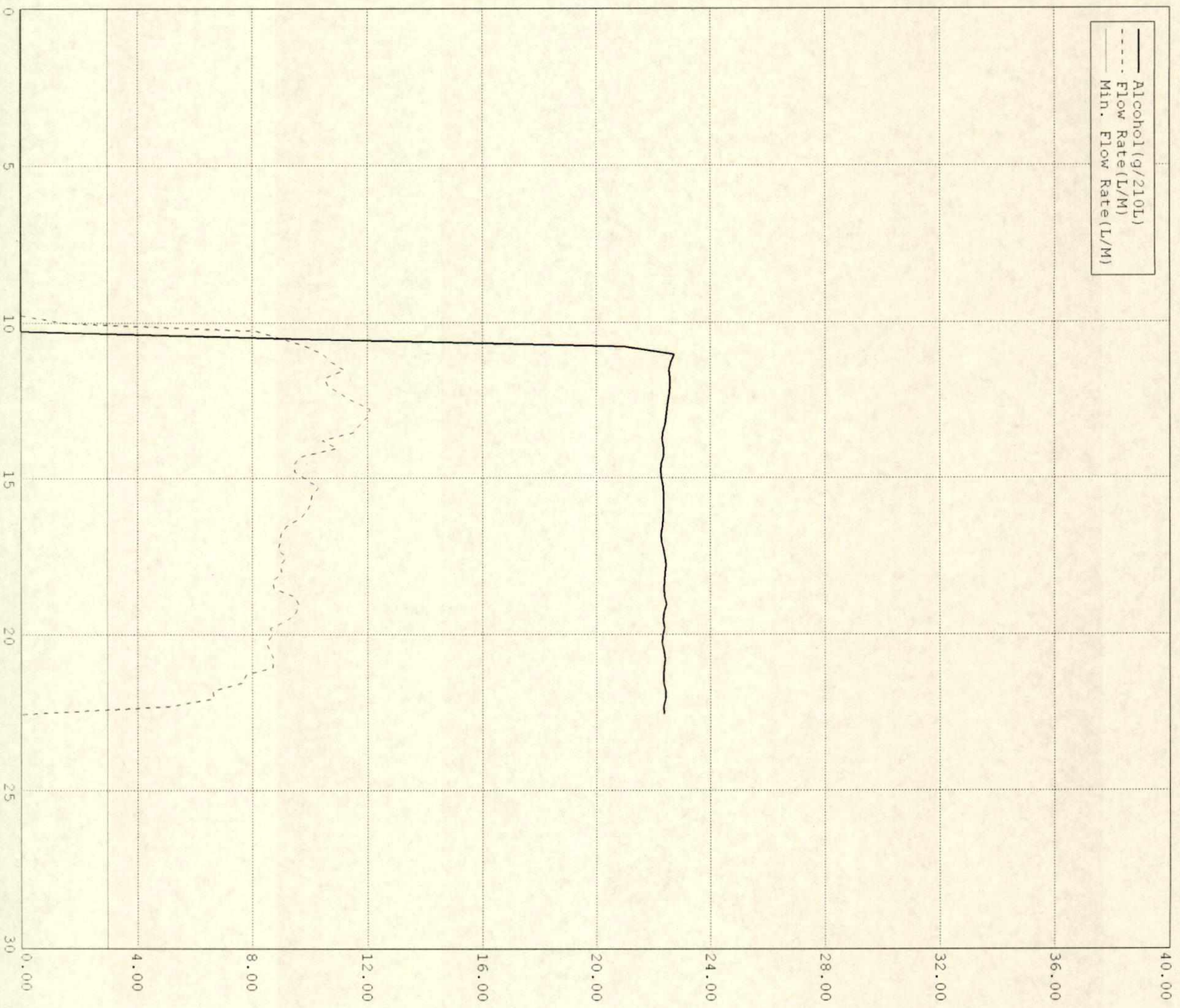
Interference Detected

Filter 2 Avg: 0.0013

Filter 3 Avg: 0.0036

BWB 8/10/17

*Handwritten signature*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 09:20:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

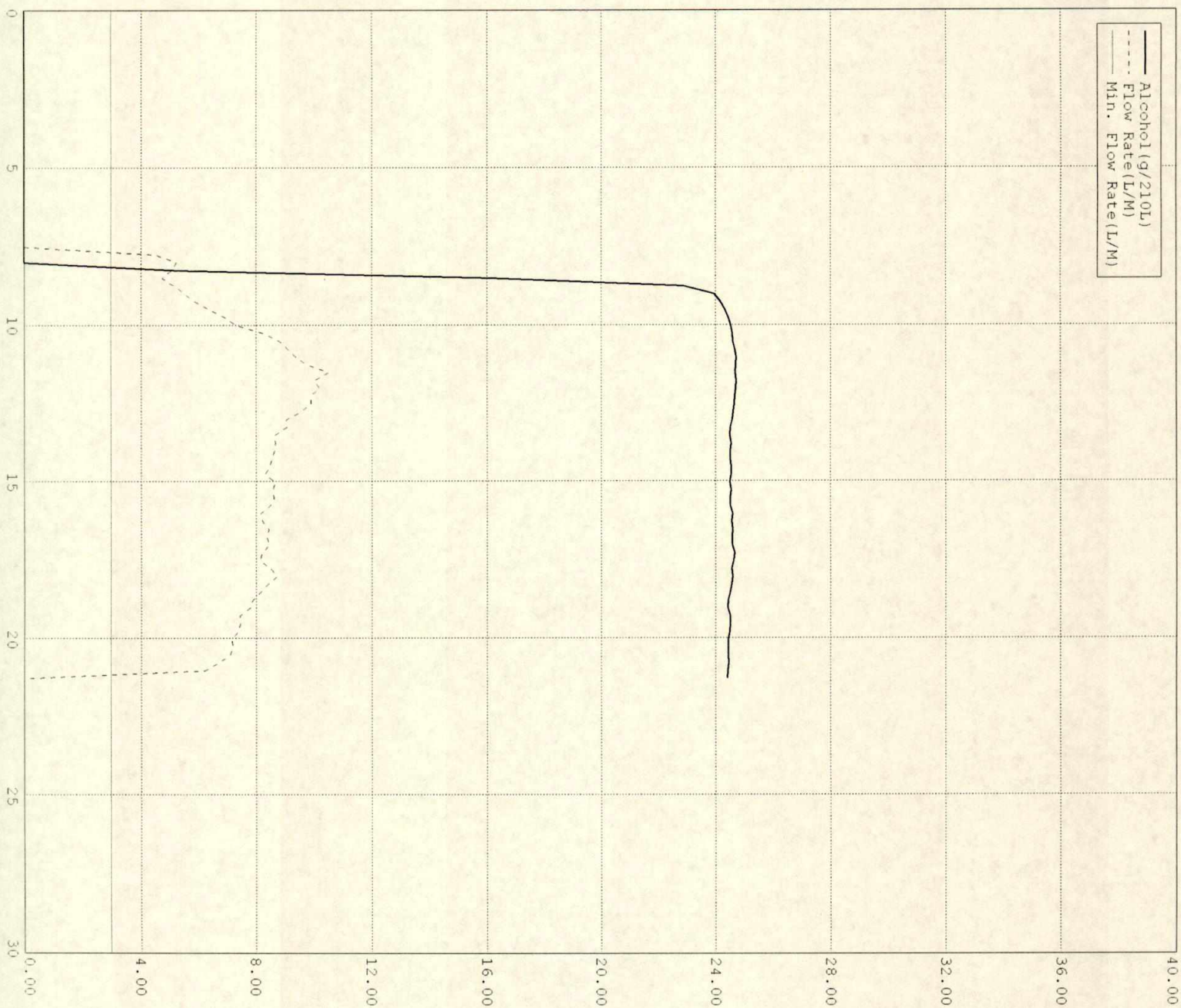
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

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

DIAGNOSTIC CHECK PASSED 09:22  
BLANK TEST 0.000 09:22  
INTERNAL STANDARD VERIFIED 09:22  
Xq = 0.104 (2.70%)  
EXTERNAL STANDARD 0.080 09:22  
X[1] = 0.0799 (0.0012) (0.0042)  
BLANK TEST 0.000 09:23  
SUBJECT SAMPLE XXX 09:24  
X[1] = 0.1227 (-0.0262) (0.0036)

Interference Detected

*Handwritten signature*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 09:28:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

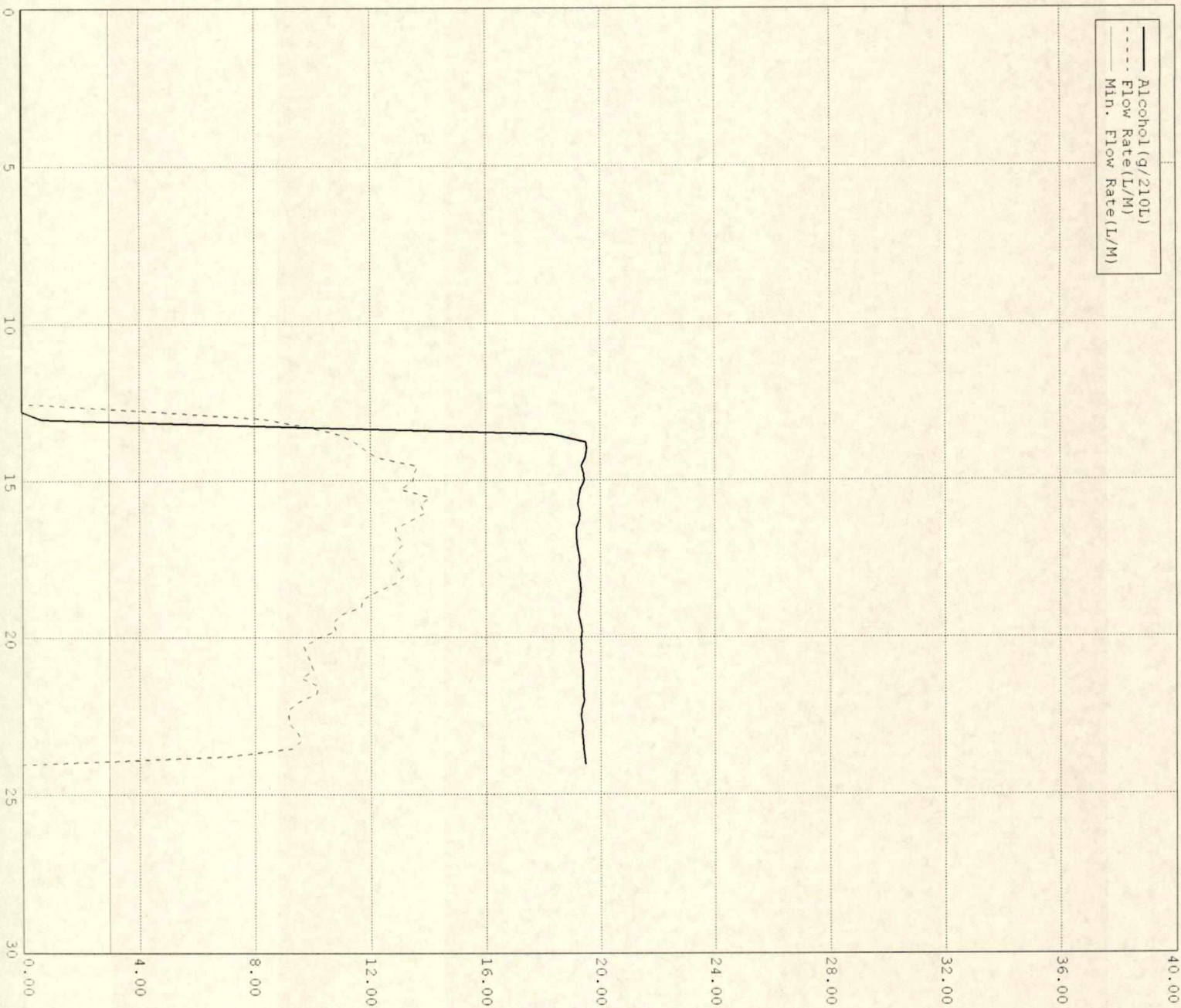
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.73: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:29
BLANK TEST	0.000	09:30
INTERNAL STANDARD	VERIFIED	09:30
Xq = 0.104 (2.96%)		
EXTERNAL STANDARD	0.080	09:30
X[1] = 0.0798 (0.0016)	(0.0039)	
BLANK TEST	0.000	09:31
SUBJECT SAMPLE (Vol=2.10L)	0.097	09:31
X[1] = 0.0975 (0.0018)	(0.0011)	
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.079	09:33
X[1] = 0.0793 (0.0013)	(0.0029)	
BLANK TEST	0.000	09:33

*BNB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 09:00:10

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

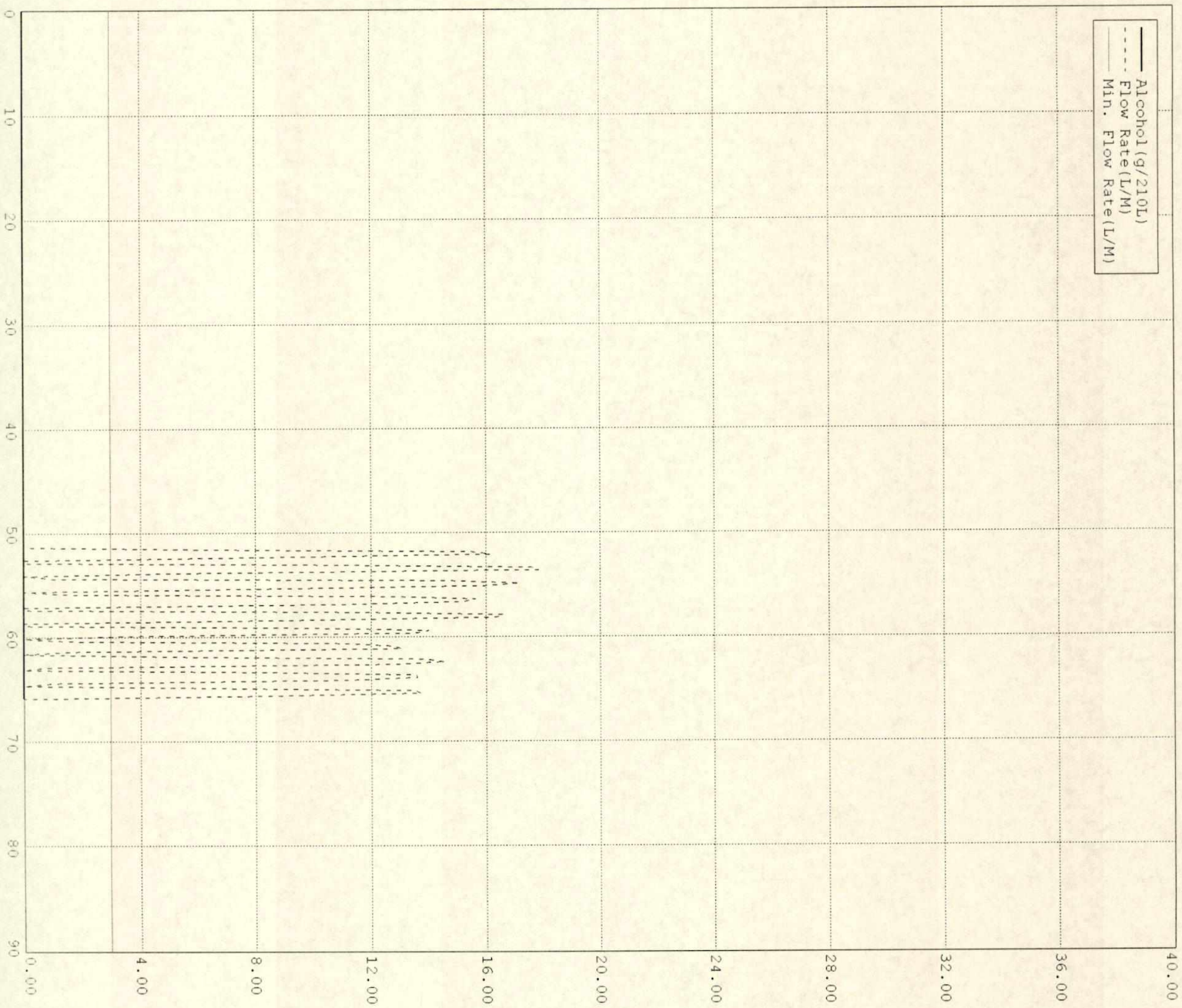
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
EXCEEDED ATTEMPT  
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	09:01
BLANK TEST	0.000	09:01
INTERNAL STANDARD	VERIFIED	09:01
EXTERNAL STANDARD	0.080	09:01
BLANK TEST	0.000	09:02
SUBJECT SAMPLE	XXX	09:03

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 08:51:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

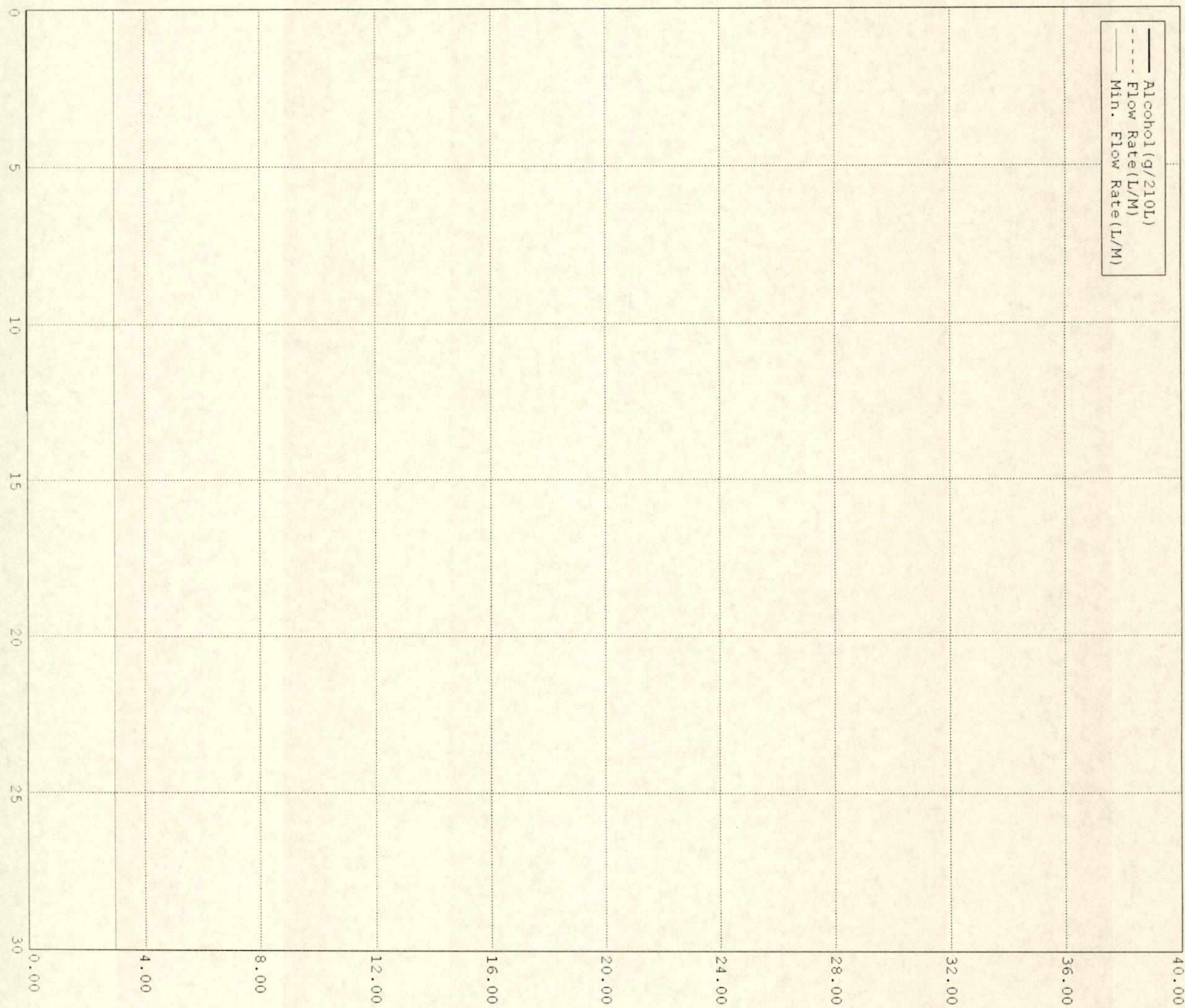
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

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

DIAGNOSTIC CHECK	PASSED	08:53
BLANK TEST	0.000	08:53
INTERNAL STANDARD	VERIFIED	08:53
EXTERNAL STANDARD	0.080	08:53
BLANK TEST	0.000	08:54

RFI DETECTED

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 08/10/2017  
Time: 09:51:52

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 29.74: 0.080  
LOT #: AG608504  
EXPIRATION: 03/25/2018

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	09:54
BLANK TEST	0.000	09:55
INTERNAL STANDARD	VERIFIED	09:55
EXTERNAL STANDARD	0.080	09:55
BLANK TEST	0.000	09:56
SUBJECT SAMPLE (Vol=2.06L)	0.000	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.080	09:57
BLANK TEST	0.000	09:58

*BMB*

