

# 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 100669 Analyst Brandi Barnett Start Date 11/30/16

1. Diagnostic Test (attached)  Internal Standard value  $\leq 3.00\%$  Yes

1. Voltage Checks

a. Adjust voltages, if needed

i. Lamp (2.6V Maximum)

ii. Bias

iii. Cooler (2.0V Maximum)

iv. Chopper Frequency

v. Detector Voltage (-0.100V to 0.100V)

b. Set RFI

c. Adjust barometer reading to match NIST traceable barometer

d. Adjust volume setting, if needed (1.5L +/- 0.1L)

e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

i. 0.020g/210L Mnf ILMO Lot 02915020A2 Exp 3/5/17

ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17

iii. 0.080g/210L Mnf Airgas Lot 608504 <sup>ng 608504</sup> <sub>gms 12/8/16</sub> Exp 3/25/18

iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17

v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/11/17

1. Simulator S/N DR6267 Date Calibrated 3/3/16

vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17

1. Simulator S/N DR4176 Date Calibrated 3/3/16

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17

1. Simulator S/N DR4162 Date Calibrated 3/2/16

ii. Isopropanol - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17

1. Simulator S/N DR4163 Date Calibrated 3/2/16

iii. Negative Control - Mnf Guth Lot 16160 Level 0.100 Exp 7/19/18

1. Simulator S/N SD1176 Date Calibrated 3/4/16

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 12/1/16

DIAGNOSTIC RECORD

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100669  
 -----

Date: 11/30/2016  
 Time: 08:27:34

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.7°C PASSED  
 (44.0°C - 52.0°C)  
 Breath Tube = 46.1°C PASSED  
 (38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.66 V PASSED  
 (1.00 V - 2.32 V)  
 Cooler Voltage = 1.40 V PASSED  
 (0.98 V - 2.28 V)  
 Bias Voltage = 79 V PASSED  
 (48 V - 112 V)  
 Chopper Freq = 529 Hz PASSED  
 (475 Hz - 575 Hz)  
 Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.462 L/M PASSED  
 (3.500 L/M - 6.500 L/M)

DETECTOR INFO

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

FILTER INFO

Filter 1 PASSED  
 Filter 2 PASSED  
 Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.086 0.30% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100669  
-----

Date: 11/30/2016  
Time: 8:38 AM

Temperatures (°C)

Sample Cell: 48.8°C  
Breath Tube: 46.2°C

Current Barometer 29.2 in  
Volume (Ltr) 1.58

Settings

Lamp: 1.72 V  
Bias: 79 V  
Cooler: 1.40 V  
Chopper: 529 Hz

Voltages (V)

Flow: 1.06 V  
Detector: 0.037 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100669  
-----

Date: 09/21/2011  
Time: 14:08:59

Ca = 0.1500  
CAL = 0.993059 0.800 <= CAL < 1.200  
b1 = 0.0000 0.0000 <= b1 < 0.0040  
b2 = 0.0013 0.0010 <= b2 < 0.0100  
b3 = 0.0001 0.0000 <= b3 < 0.0040  
Xq = 0.0858 0.0500 <= Xq < 0.2000  
a21 = 1.151866 1.050 <= a21 < 1.300  
a31 = 0.509629 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 11/30/2016  
Time: 08:47:36

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

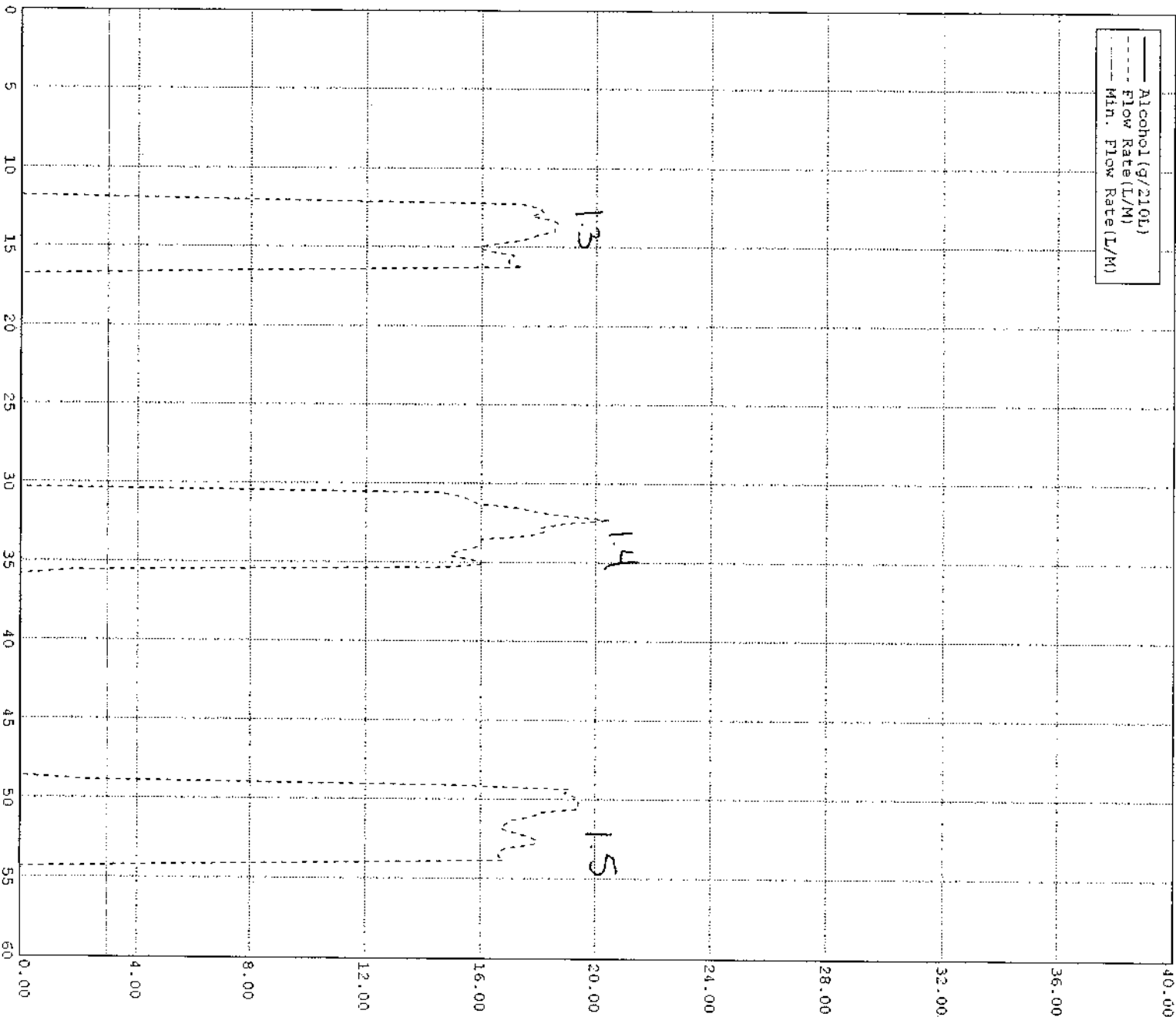
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.22: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	08:49
BLANK TEST	0.006	08:49
INTERNAL STANDARD	VERIFIED	08:49
EXTERNAL STANDARD	0.079	08:50
BLANK TEST	0.000	08:51
SUBJECT SAMPLE (Vol=1.52L)	0.000	08:52
BLANK TEST	0.000	08:52
EXTERNAL STANDARD	0.079	08:53
BLANK TEST	0.000	08:54

BMB



LINEARITY CHECK

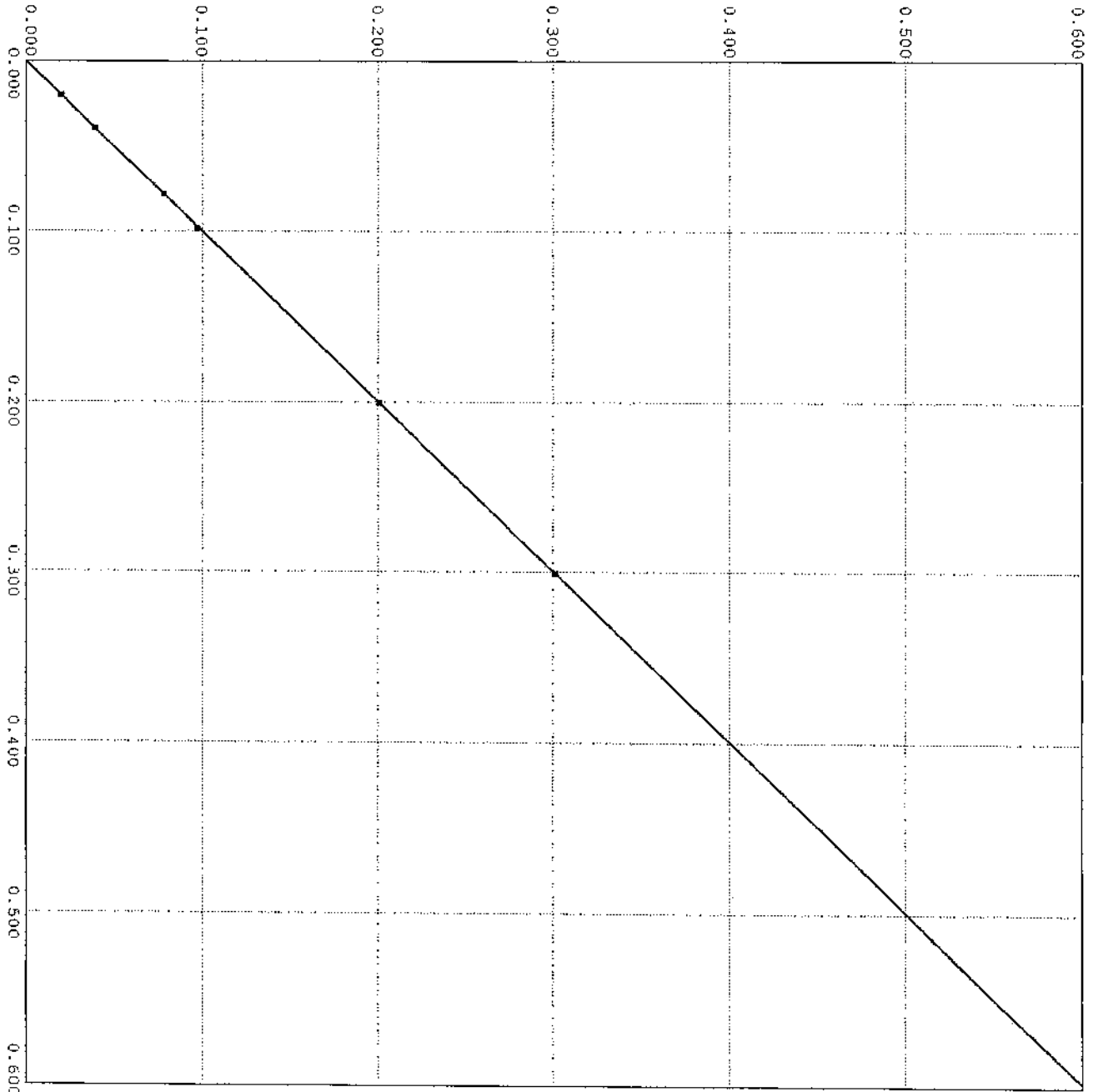
Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 11/30/2016  
Time: 09:48:39

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0208	0.0004
0.039	0.0400	0.0000
0.078	0.0790	0.0000
0.098	0.0980	0.0000
0.200	0.2016	0.0005
0.300	0.3020	0.0000

SLOPE = 1.004672  
R<sup>2</sup> = 0.999981



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

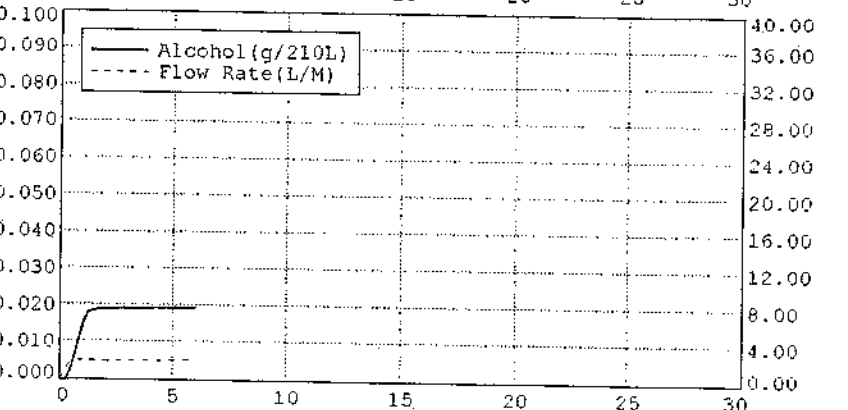
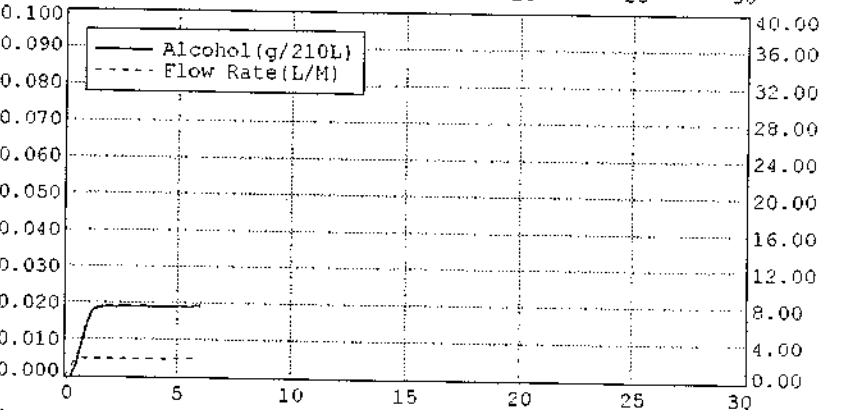
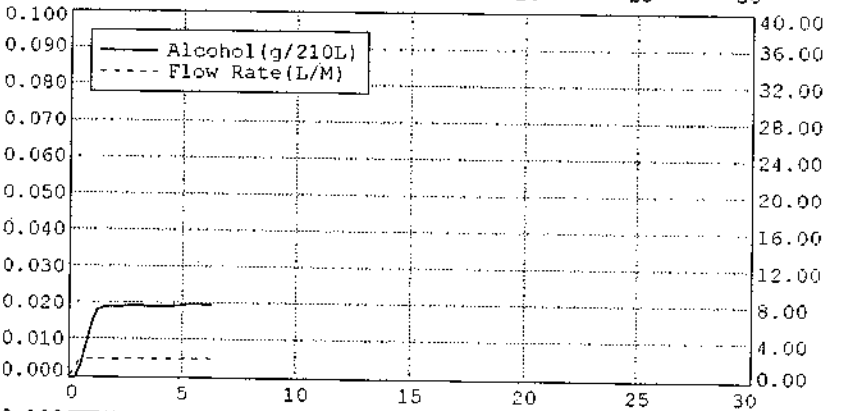
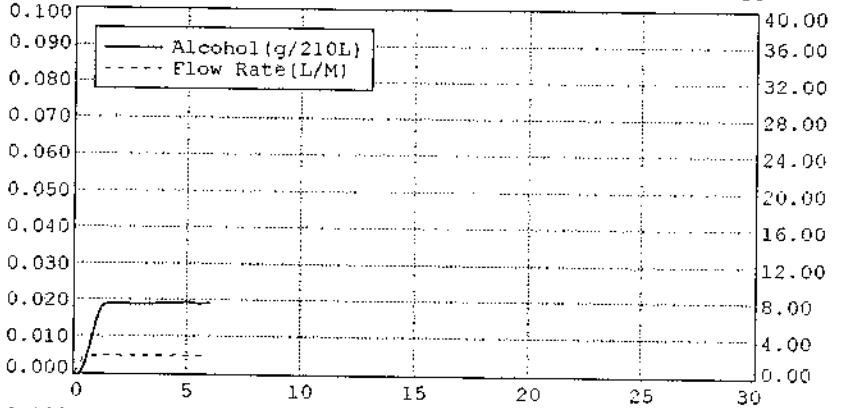
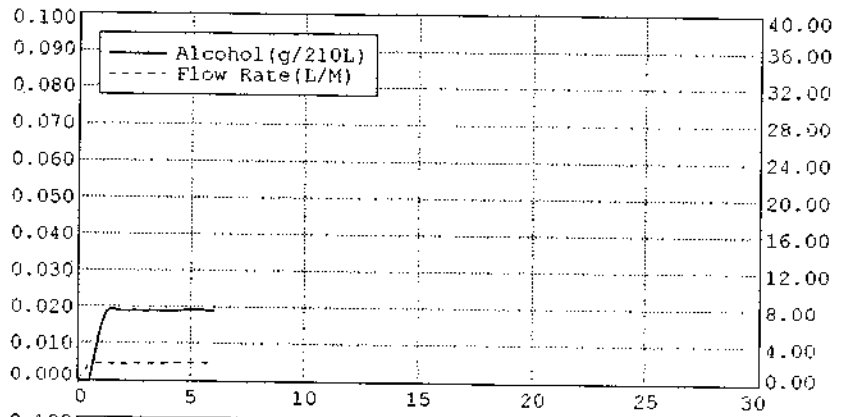
Date: 11/30/2016  
 Time: 09:48:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.22: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 305 psi

BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.020	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.021	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.021	09:59
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.021	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.021	10:01
BLANK TEST	0.000	10:02

Average = 0.0208  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

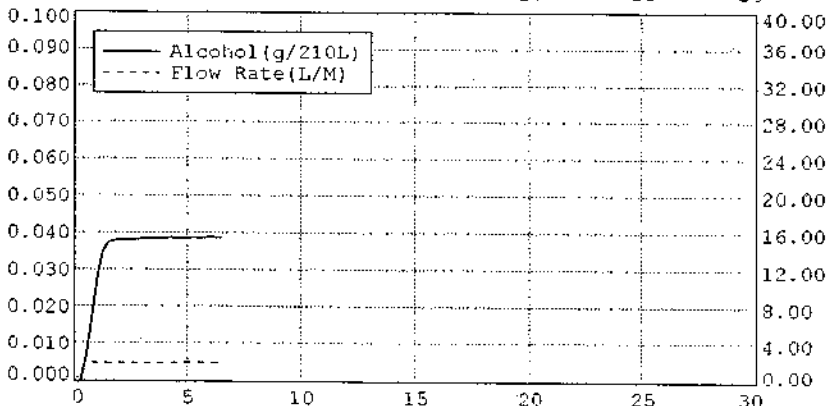
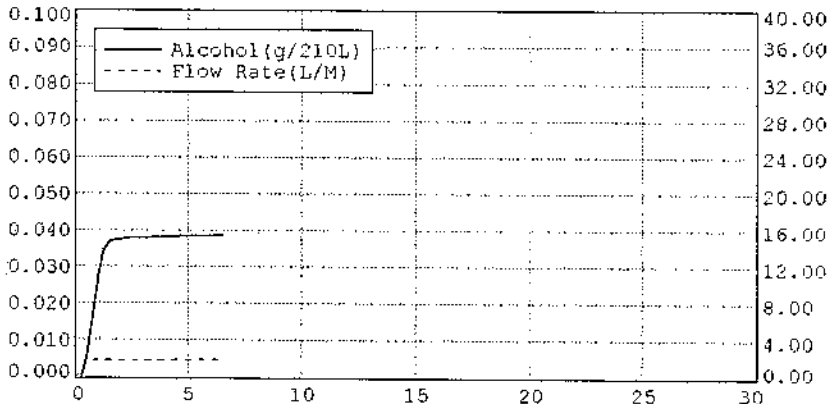
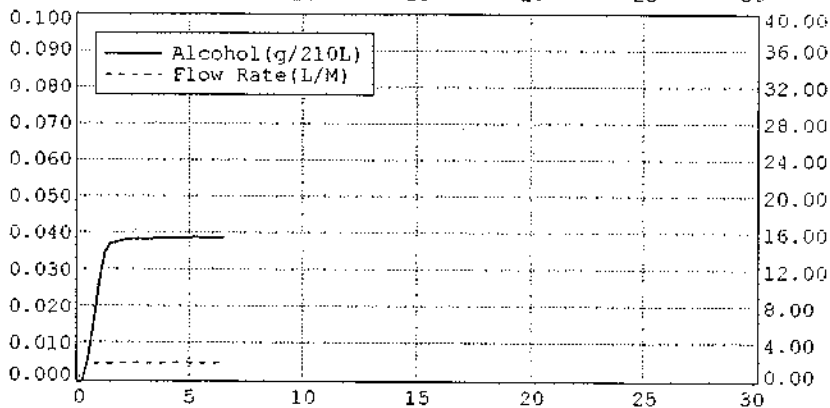
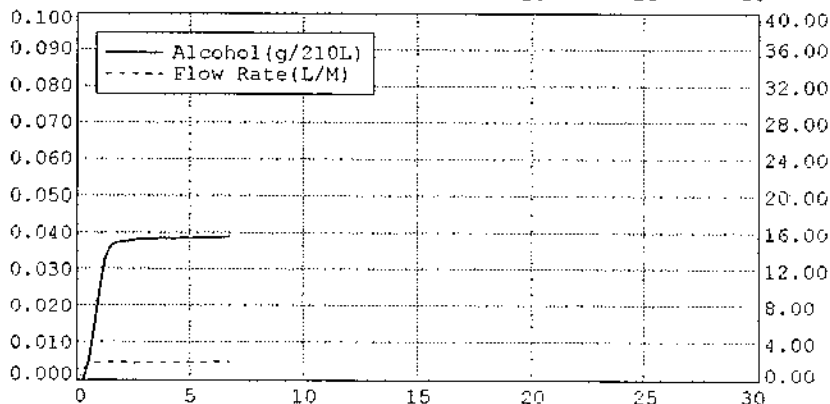
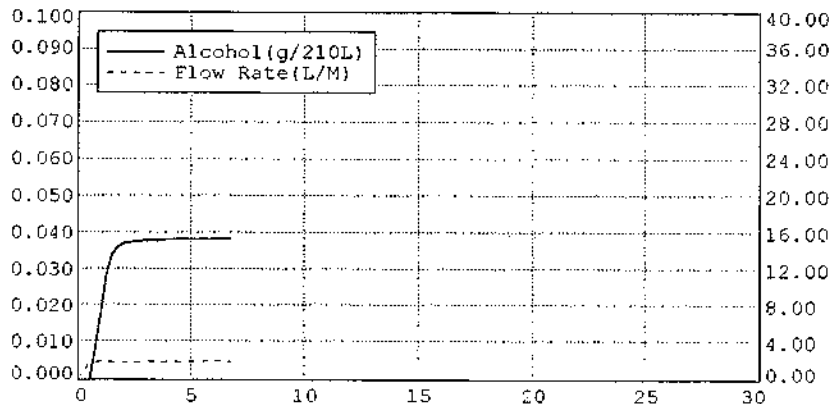
Date: 11/30/2016  
 Time: 10:05:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.22: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 172 psi

BLANK TEST	0.000	10:06
INTERNAL STANDARD	VERIFIED	10:06
EXTERNAL STANDARD	0.040	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.040	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.040	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.040	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.040	10:10
BLANK TEST	0.000	10:11

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

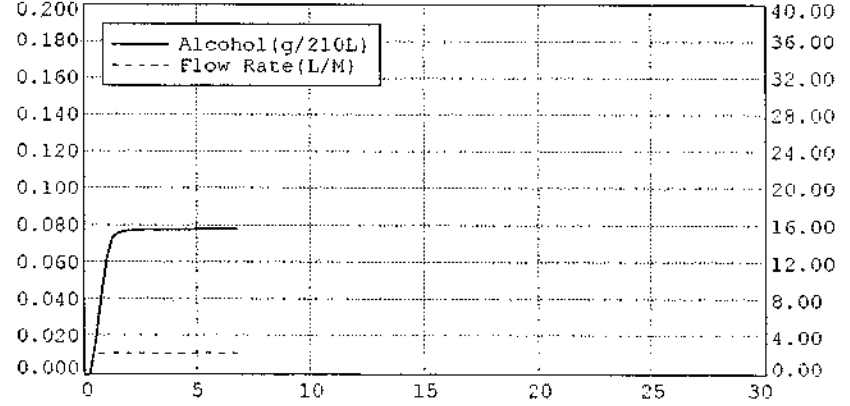
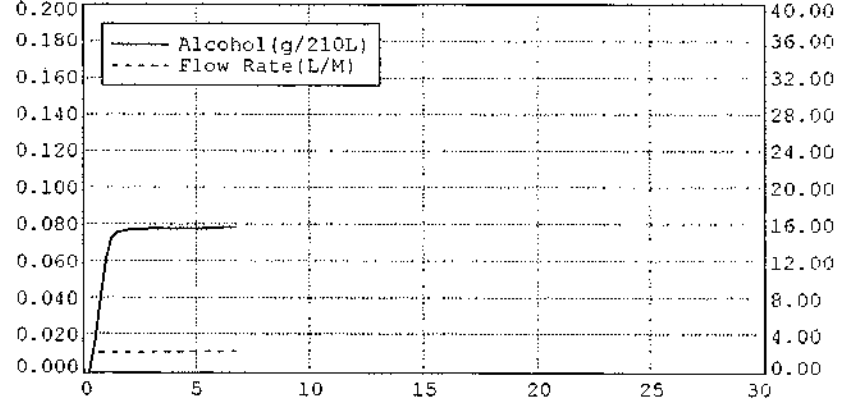
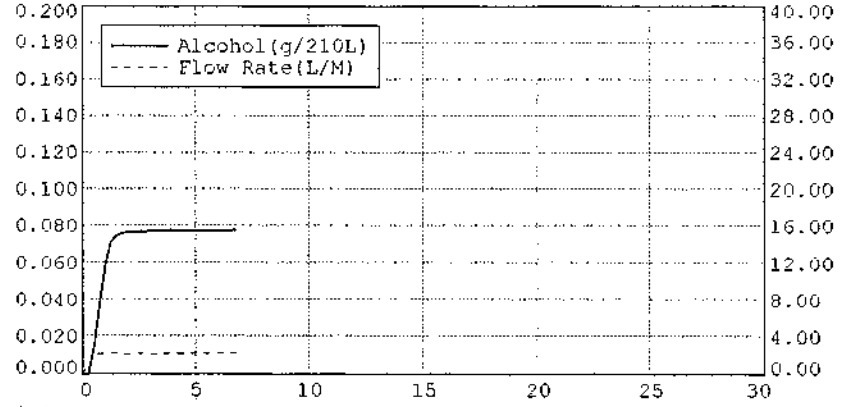
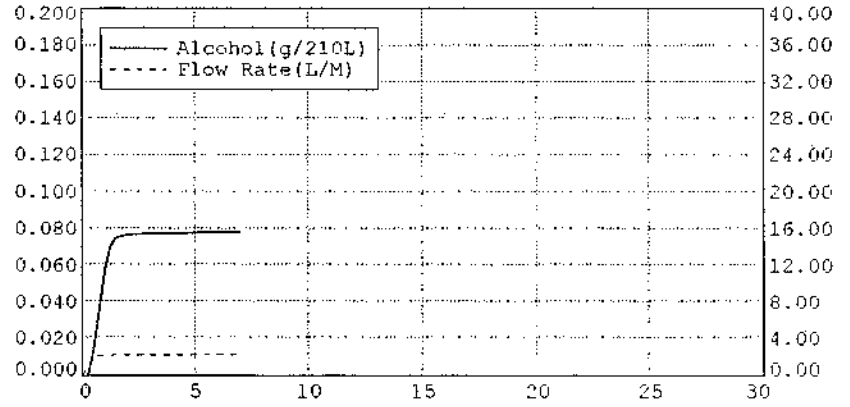
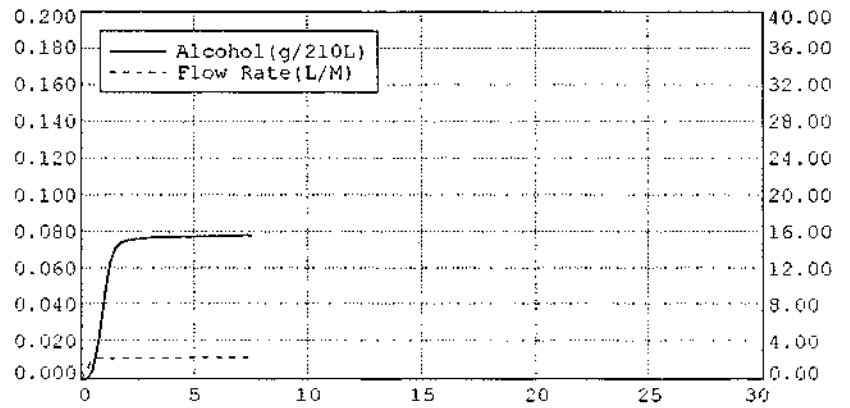
Date: 11/30/2016  
 Time: 10:24:15

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.22: 0.078  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 1042 psi

BLANK TEST	0.000	10:27
INTERNAL STANDARD	VERIFIED	10:27
EXTERNAL STANDARD	0.079	10:27
BLANK TEST	0.000	10:28
EXTERNAL STANDARD	0.079	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.079	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.079	10:31
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.079	10:32
BLANK TEST	0.000	10:33

Average = 0.0790  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

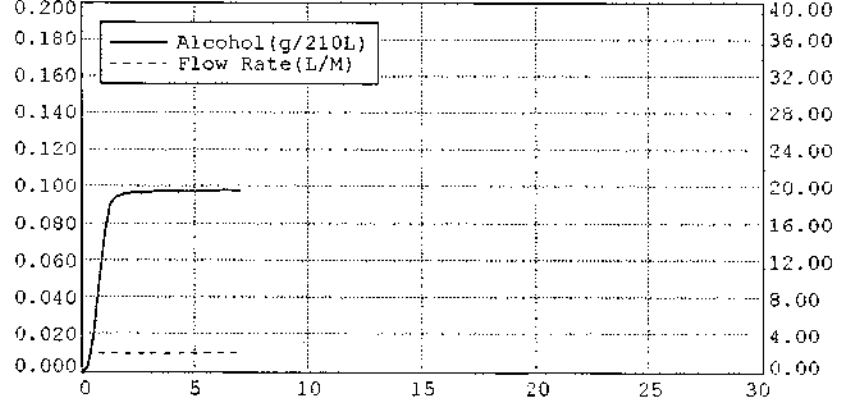
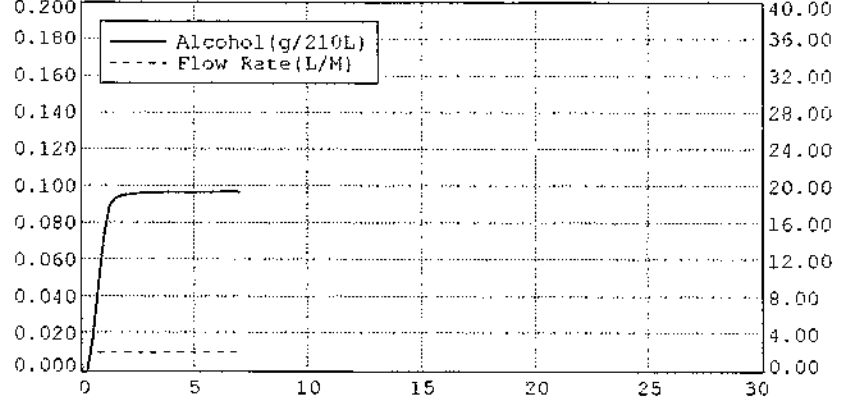
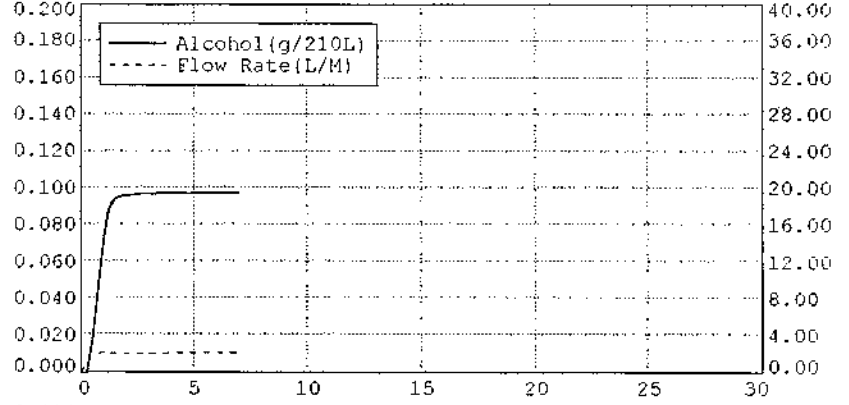
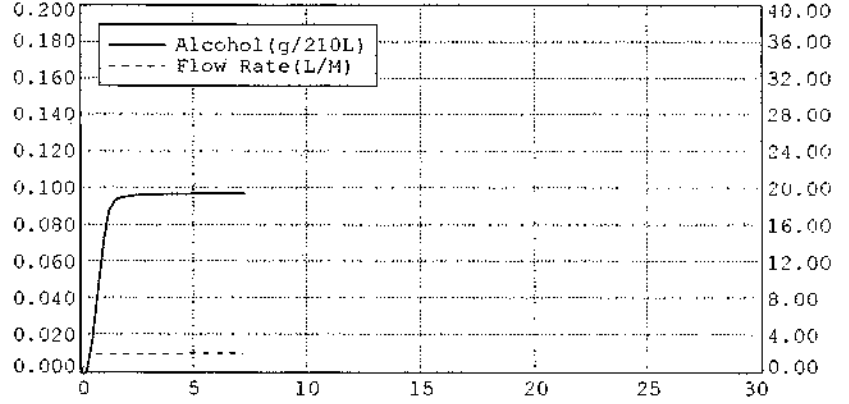
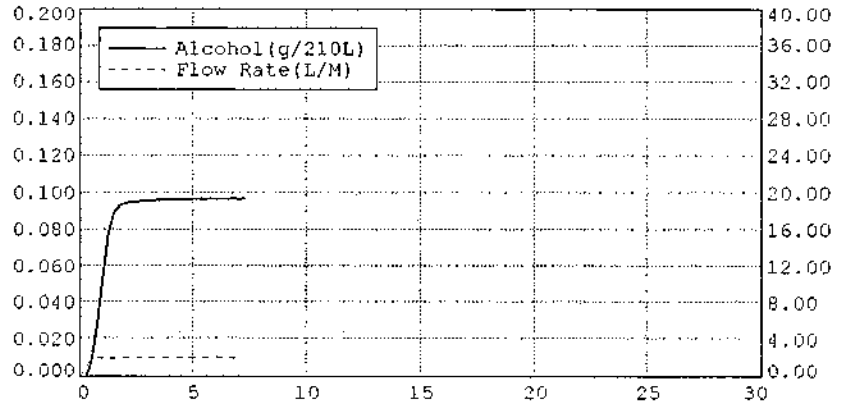
Date: 11/30/2016  
 Time: 10:39:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.22: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 351 psi

BLANK TEST	0.000	10:40
INTERNAL STANDARD	VERIFIED	10:40
EXTERNAL STANDARD	0.098	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.098	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.098	10:43
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.098	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.098	10:45
BLANK TEST	0.000	10:46

Average = 0.0980  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

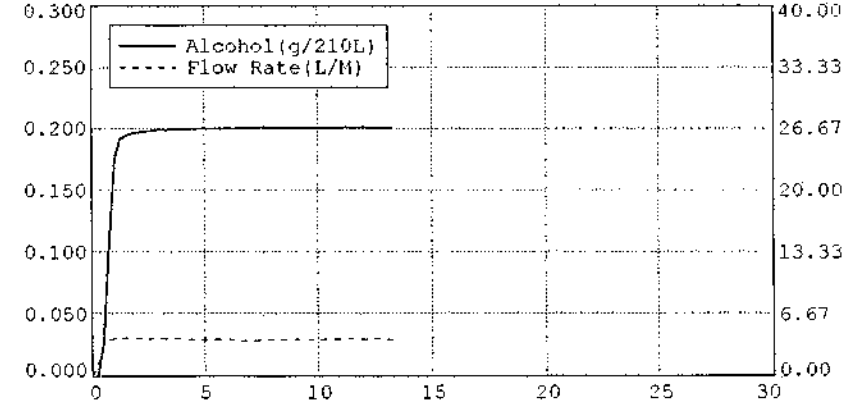
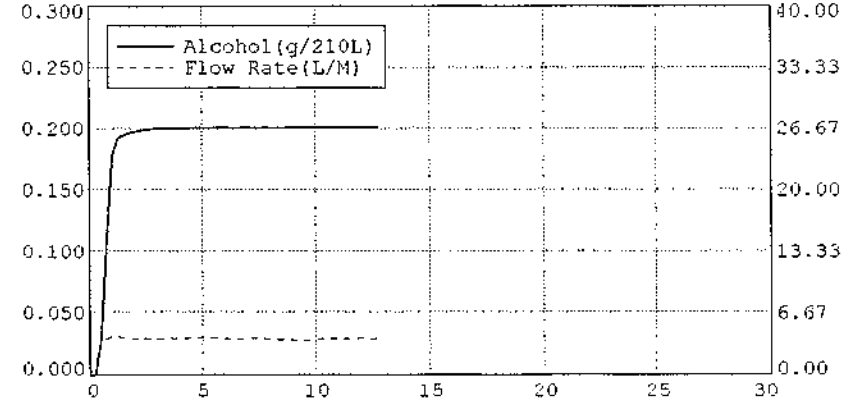
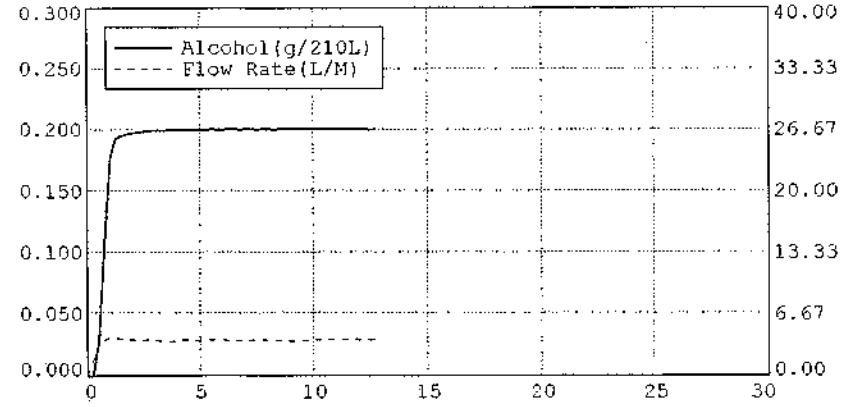
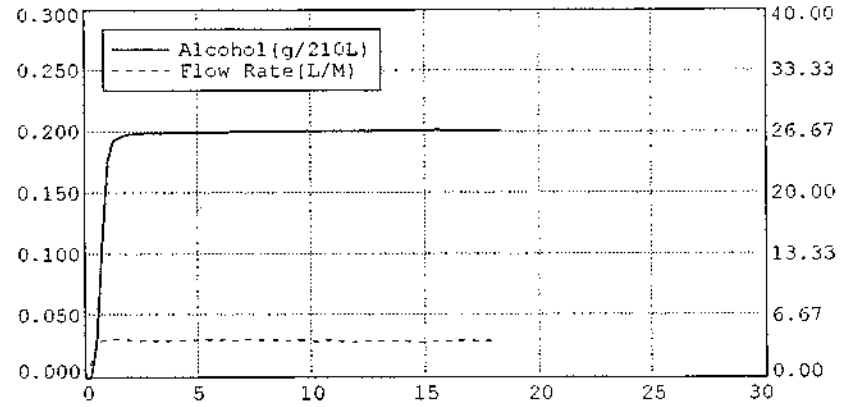
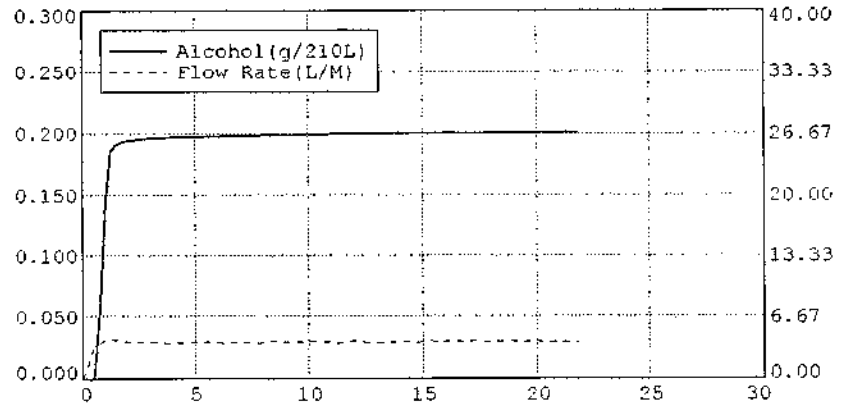
Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

Date: 11/30/2016  
 Time: 12:59:34

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

BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:01
EXTERNAL STANDARD	0.202	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.202	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.201	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.202	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.201	13:07
BLANK TEST	0.000	13:08

Average = 0.2016  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

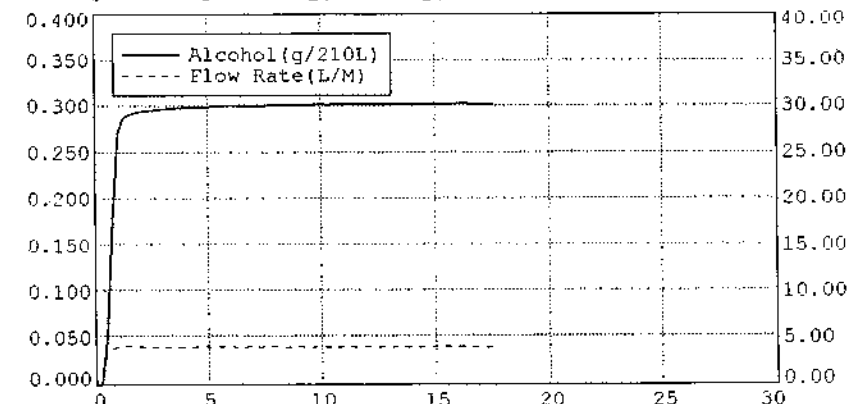
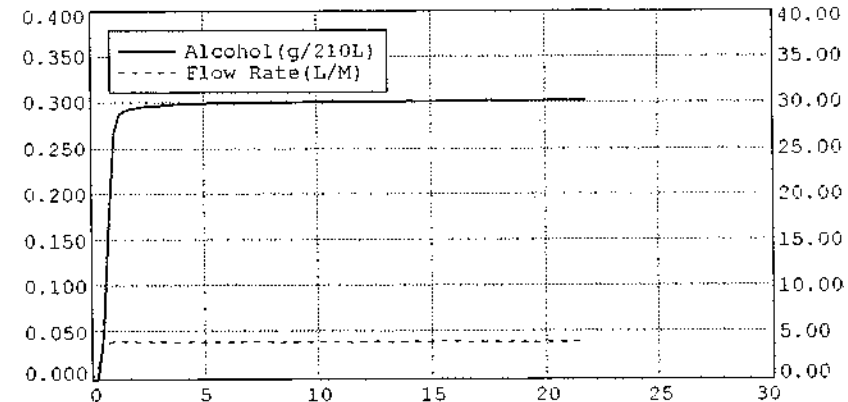
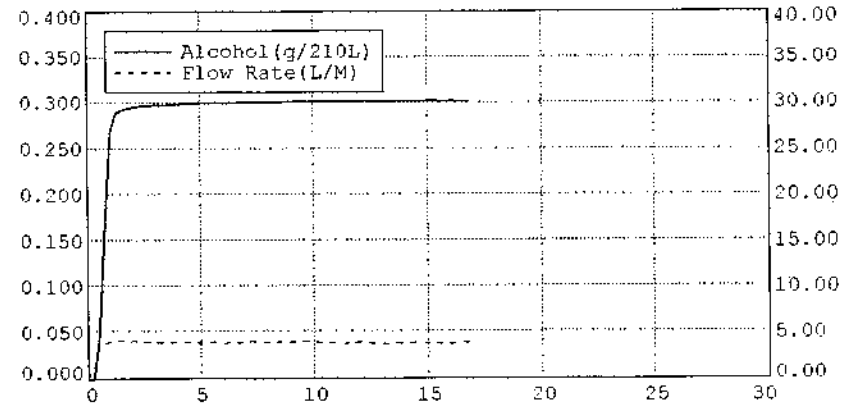
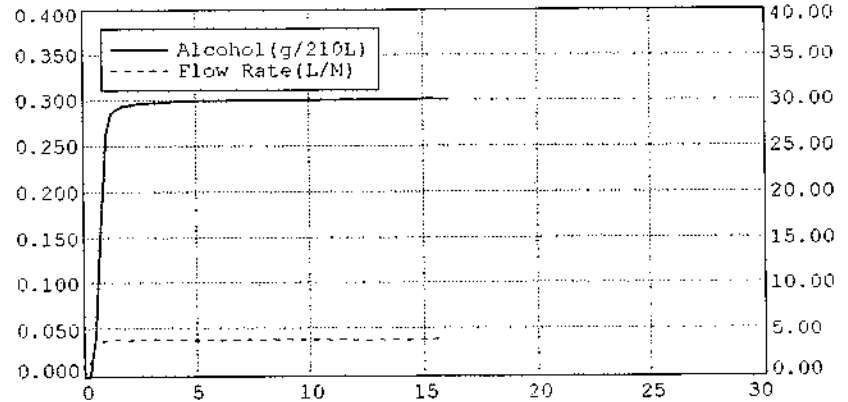
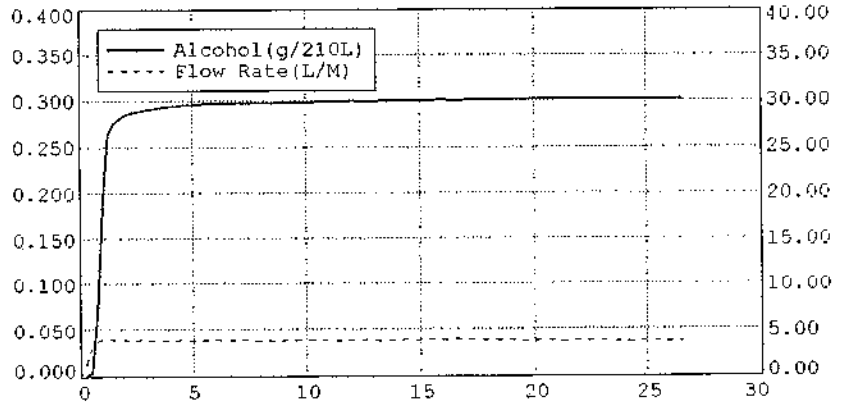
Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

Date: 11/30/2016  
 Time: 13:12:51

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

BLANK TEST	0.000	13:13
INTERNAL STANDARD	VERIFIED	13:14
EXTERNAL STANDARD	0.302	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.302	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.302	13:17
BLANK TEST	0.000	13:18
EXTERNAL STANDARD	0.302	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.302	13:19
BLANK TEST	0.000	13:20

Average = 0.3020  
 Std Dev = 0.0000



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100669

Date: 11/30/2016  
Time: 13:45:58

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

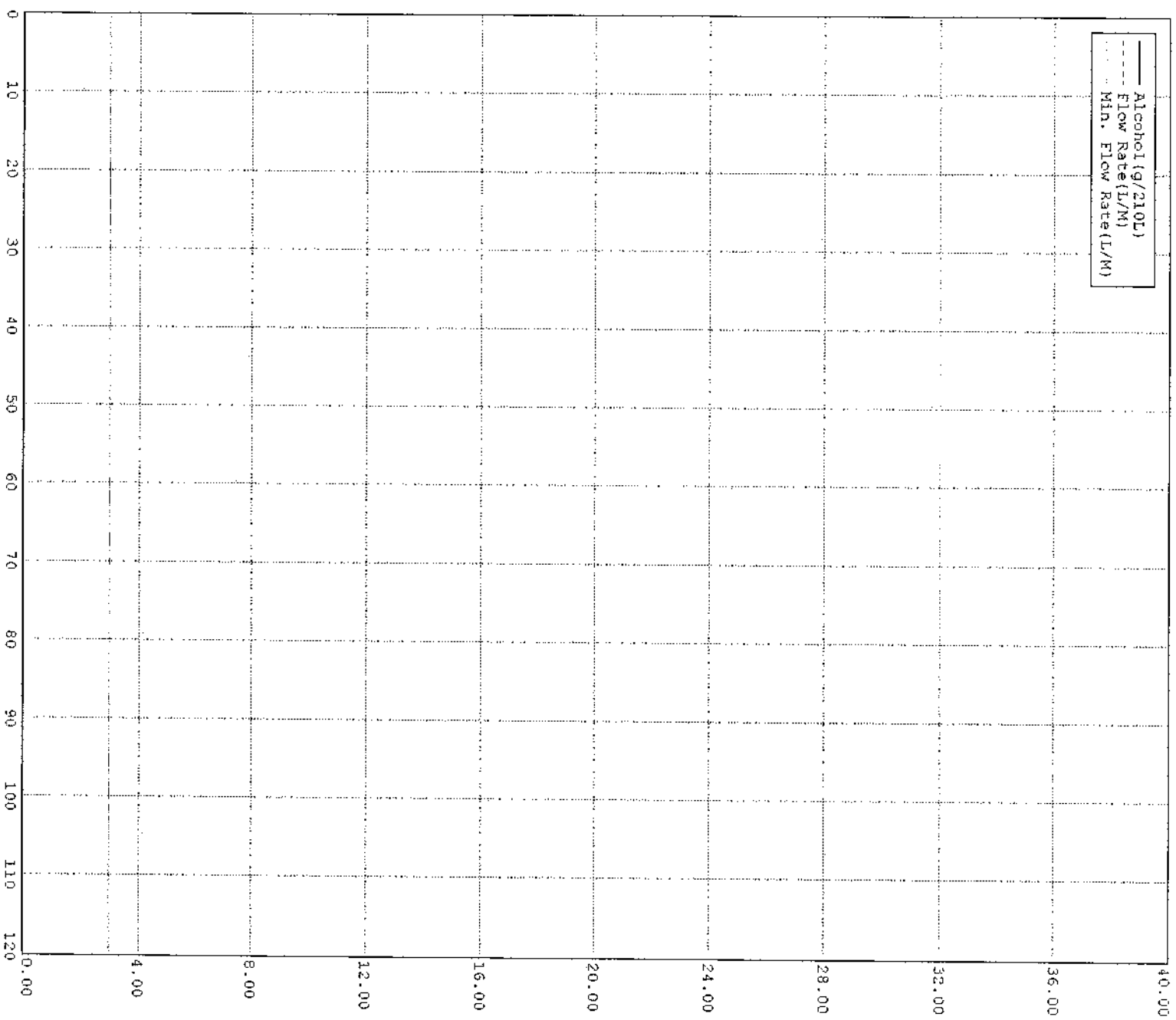
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.14: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:48
BLANK TEST	0.000	13:48
INTERNAL STANDARD	VERIFIED	13:49
EXTERNAL STANDARD	0.079	13:49
BLANK TEST	0.000	13:50
SUBJECT SAMPLE	INCOMPLETE	13:52

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 11/30/2016  
Time: 13:55:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

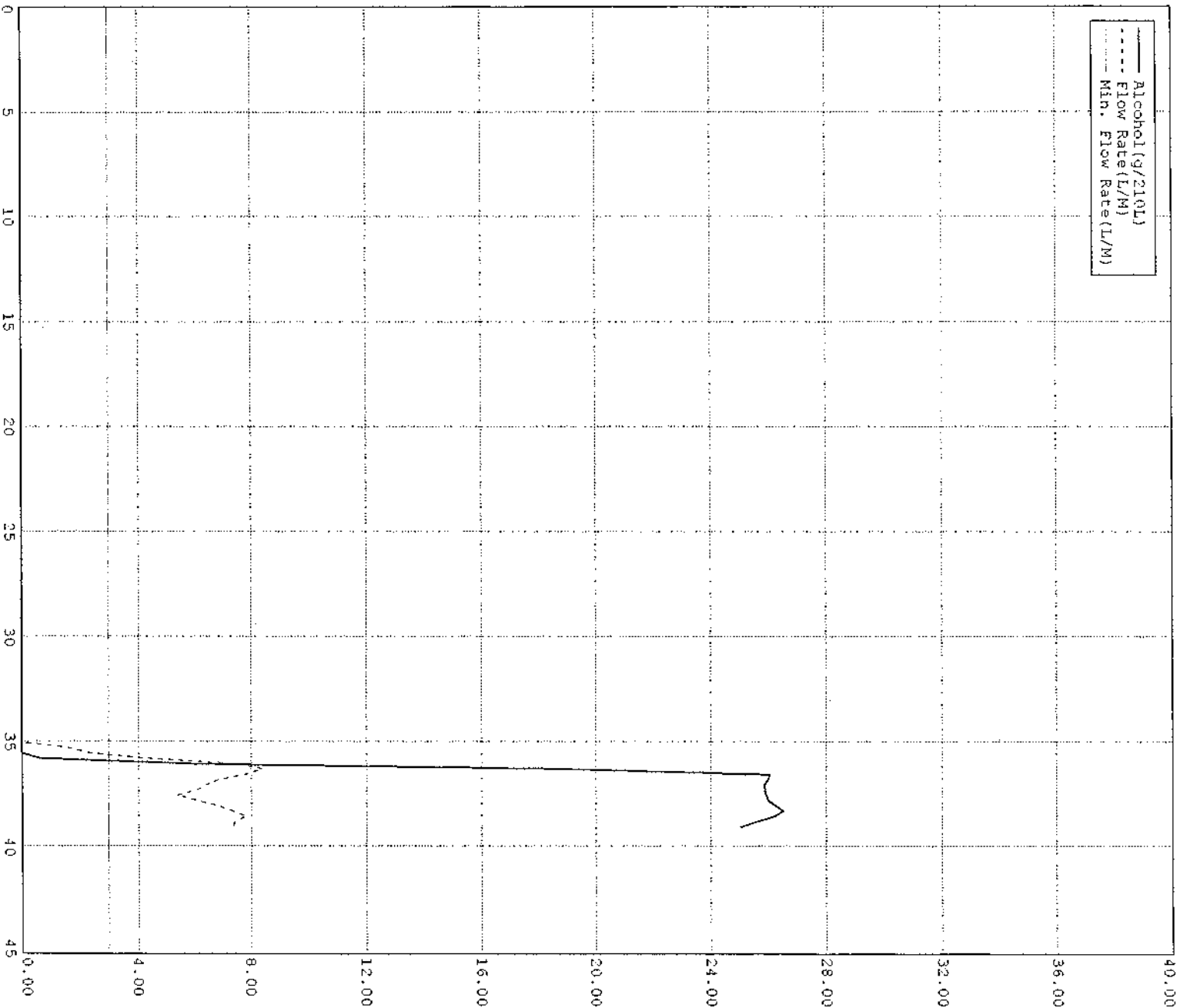
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.14: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:56
BLANK TEST	0.000	13:56
INTERNAL STANDARD	VERIFIED	13:56
EXTERNAL STANDARD	0.078	13:56
BLANK TEST	0.000	13:57
SUBJECT SAMPLE	INVALID	13:58

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 12/01/2016  
Time: 08:56:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

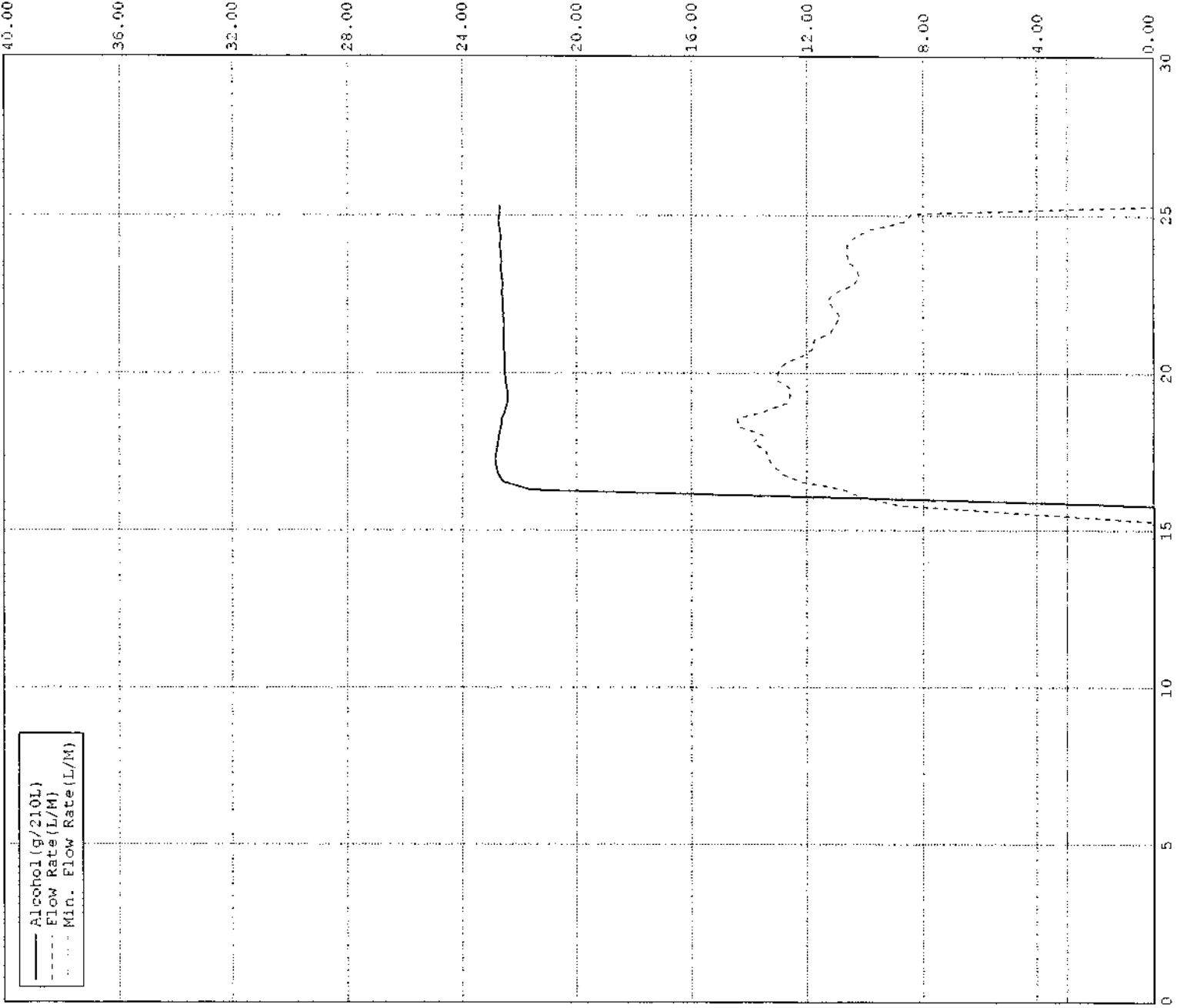
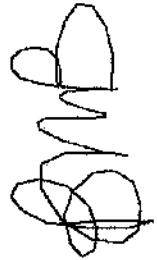
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.04: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	08:57
BLANK TEST	0.000	08:57
INTERNAL STANDARD	VERIFIED	08:57
Xq = 0.085 (0.61%)		
EXTERNAL STANDARD	0.078	08:58
X[1] = 0.0784 (0.0002) (0.0006)		
BLANK TEST	0.000	08:59
SUBJECT SAMPLE	XXX	08:59
X[1] = 0.1143 (-0.0176) (0.0009)		

Interference Detected

Filter 2 Avg: 0.0004  
Filter 3 Avg: 0.0005

BMS 12/1/16



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 12/01/2016  
Time: 09:03:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

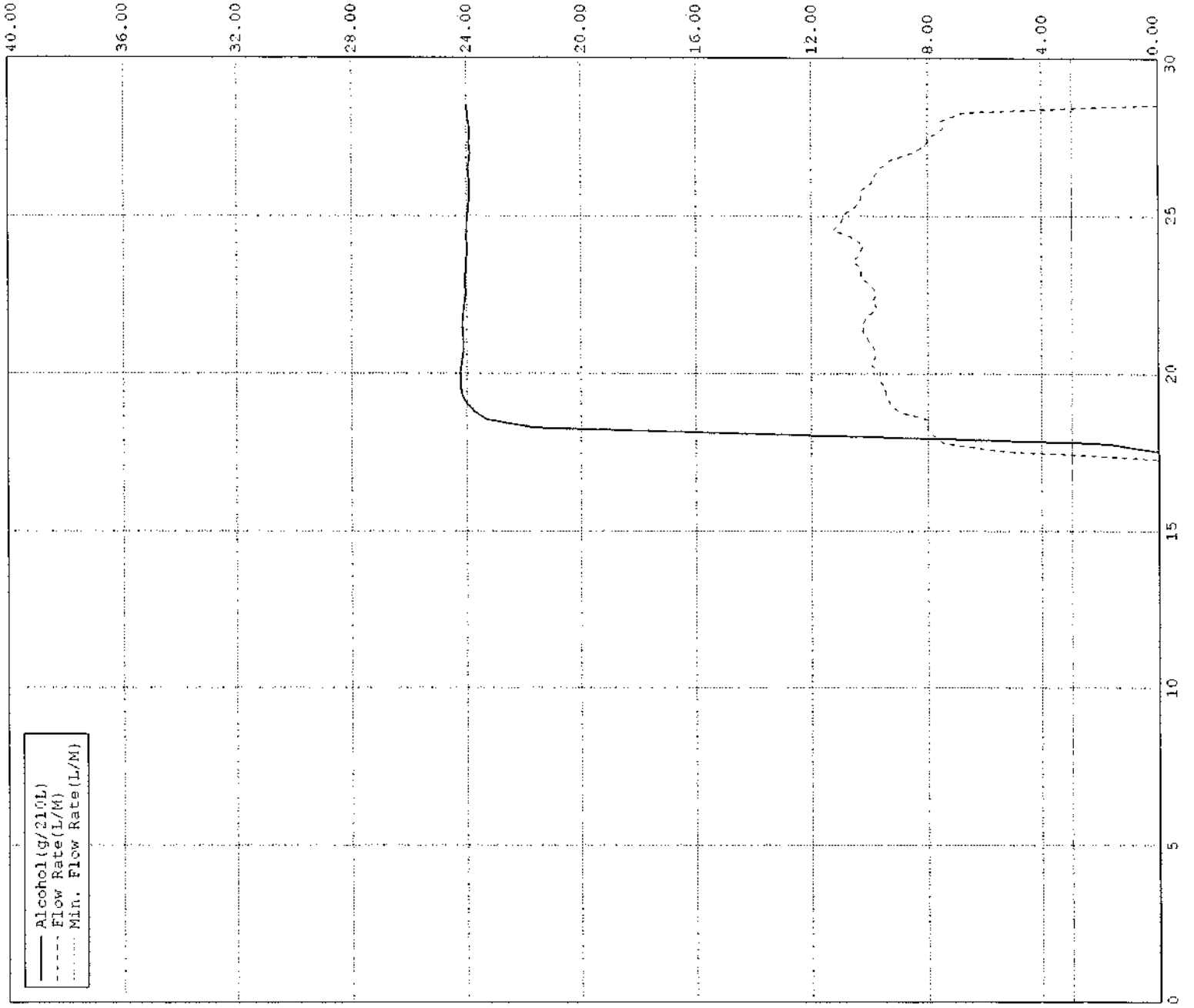
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.04: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 09:07  
BLANK TEST 0.000 09:08  
INTERNAL STANDARD VERIFIED 09:08  
Xq = 0.085 (0.41%)  
EXTERNAL STANDARD 0.078 09:08  
X[1] = 0.0785 (0.0001) (-0.0001)  
BLANK TEST 0.000 09:09  
SUBJECT SAMPLE XXX 09:09  
X[1] = 0.1208 (-0.0277) (-0.0019)

Interference Detected

*POMP*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 12/01/2016  
Time: 09:21:08

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

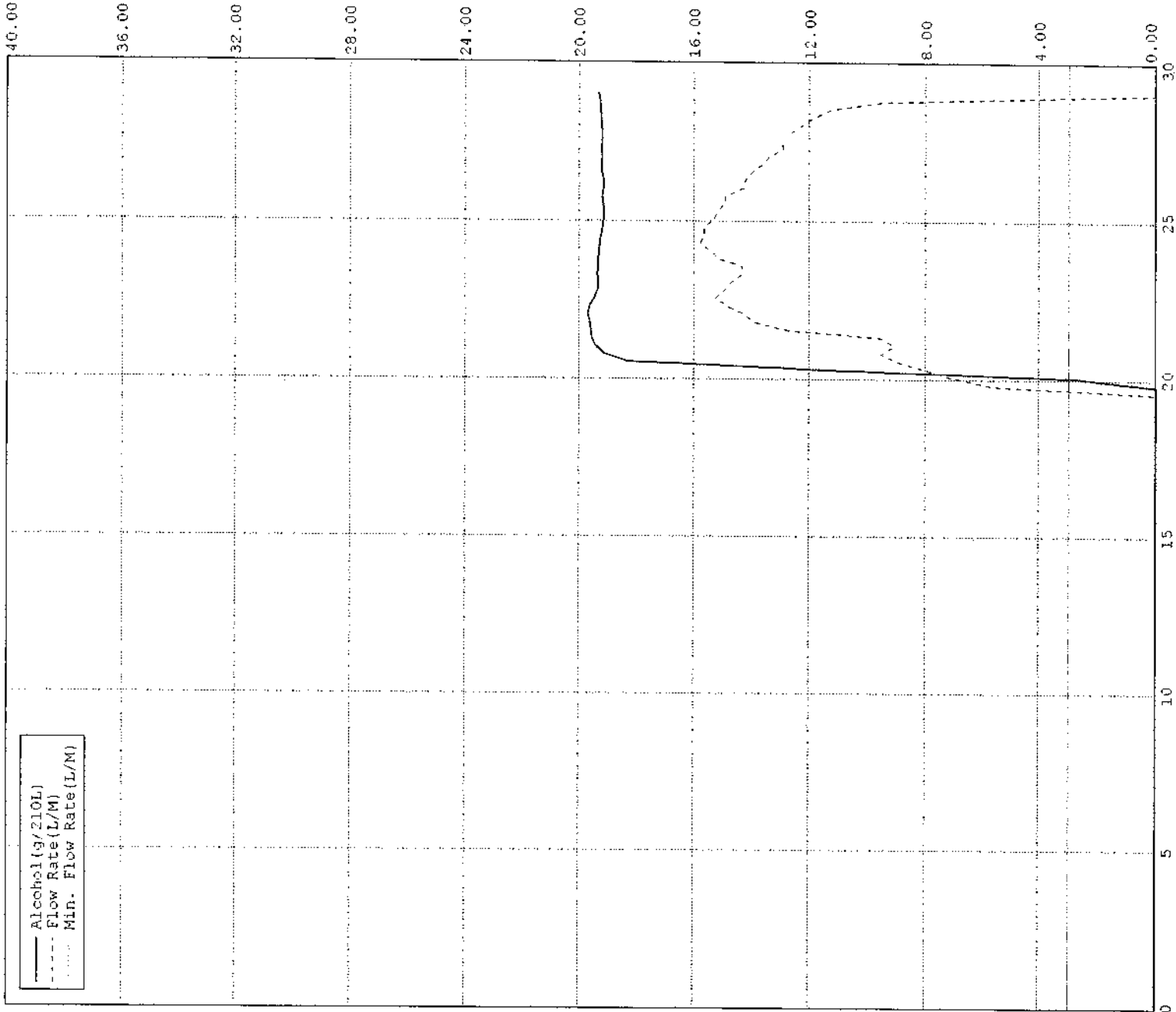
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.04: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:22
BLANK TEST	0.000	09:22
INTERNAL STANDARD	VERIFIED	09:22
$X_G = 0.085$ (0.51%)		
EXTERNAL STANDARD	0.078	09:22
$X[1] = 0.0782$ (0.0006)	(0.0012)	
BLANK TEST	0.000	09:23
SUBJECT SAMPLE (Vol=2.00L)	0.097	09:24
$X[1] = 0.0971$ (-0.0032)	(-0.0008)	
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.078	09:25
$X[1] = 0.0780$ (0.0005)	(0.0004)	
BLANK TEST	0.000	09:26



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 11/30/2016  
Time: 14:29:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

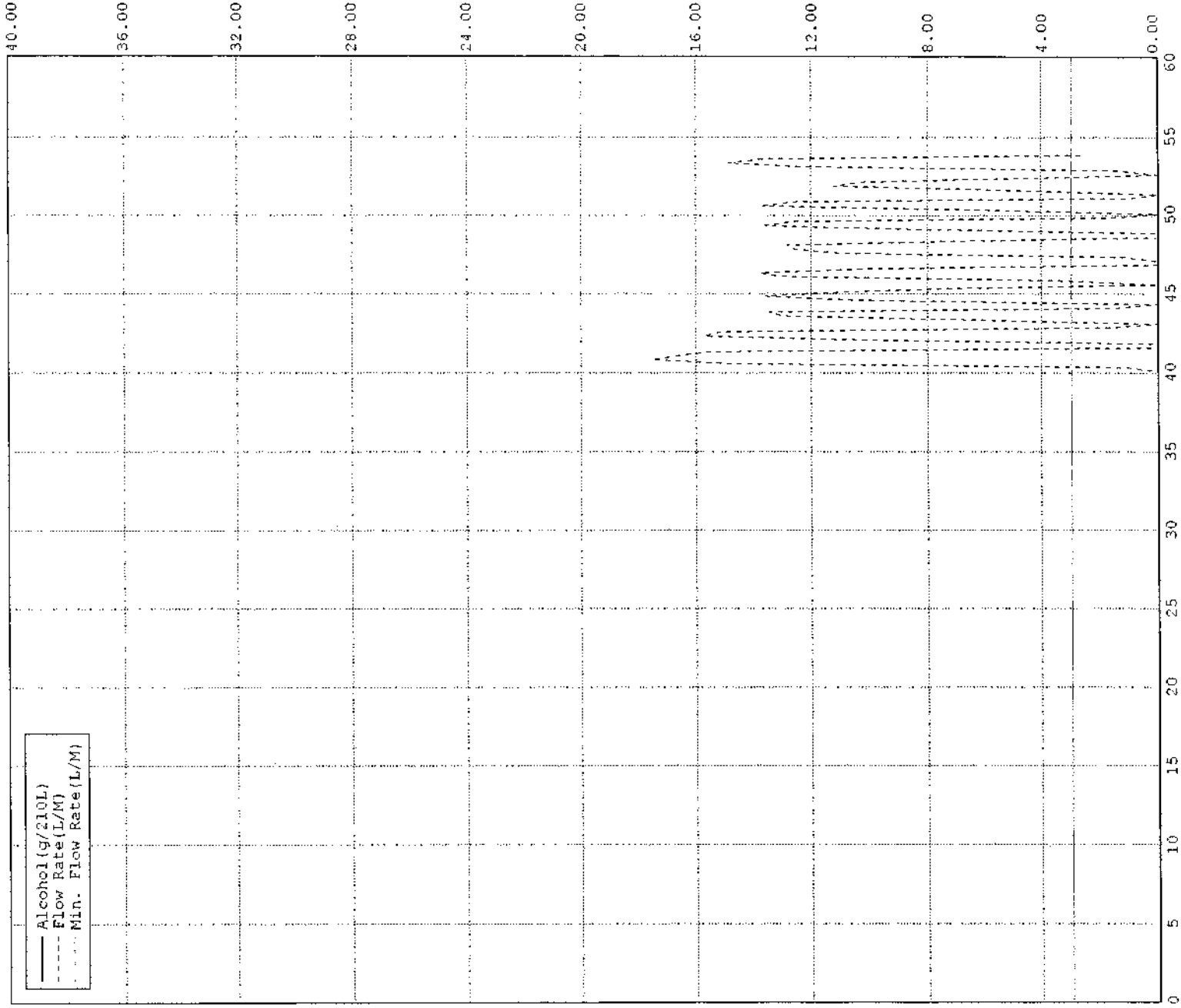
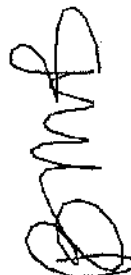
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.11: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 14:31  
BLANK TEST 0.000 14:31  
INTERNAL STANDARD VERIFIED 14:31  
EXTERNAL STANDARD 0.079 14:31  
BLANK TEST 0.000 14:32  
SUBJECT SAMPLE XXX 14:33

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 11/30/2016  
Time: 14:01:28

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

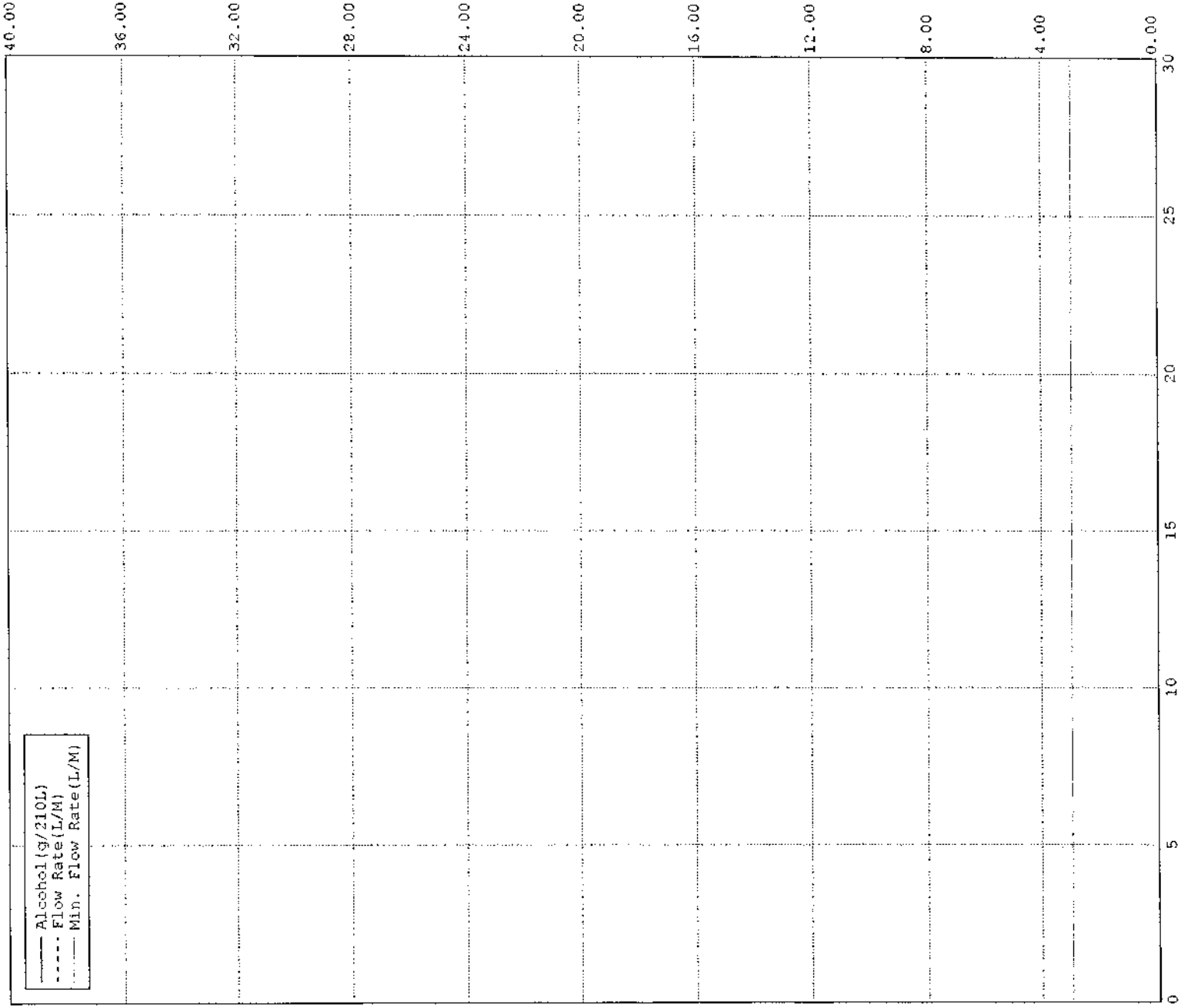
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.14: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 14:02  
BLANK TEST 0.000 14:02  
INTERNAL STANDARD VERIFIED 14:02  
EXTERNAL STANDARD 0.079 14:02  
BLANK TEST 0.000 14:03

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 12/01/2016  
Time: 10:25:57

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 29.04: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:27
BLANK TEST	0.000	10:27
INTERNAL STANDARD	VERIFIED	10:27
EXTERNAL STANDARD	0.079	10:27
BLANK TEST	0.000	10:28
SUBJECT SAMPLE (Vol=1.89L)	0.000	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.079	10:30
BLANK TEST	0.000	10:30

