

# 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 100667 Analyst C. O'Bryant Start Date 1/13/16

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 ILMO Lot 01313080A2 Exp 2/5/17
- 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 DR 6267 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
  - 1. Simulator S/N DR 4162 Date Calibrated 1/19/15

5. Functional Tests (attached)

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

- i. Acetone - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N DR 4163 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD 1176 Date Calibrated 1/20/15
- iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N DR 4178 Date Calibrated 1/19/15

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 1/13/16

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100667  
-----

Date: 01/13/2016  
Time: 07:43:09

VERSIONS

DMT: 3.01  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.8°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.87 V PASSED  
(1.12 V - 2.62 V)  
Cooler Voltage = 1.84 V PASSED  
(1.10 V - 2.58 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 538 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.2 in

PUMP INFO

Flow Rate = 5.332 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 = 0.108 0.24% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100667  
-----

Date: 01/13/2016  
Time: 8:04 AM

Temperatures (°C)  
Sample Cell: 49.2°C  
Breath Tube: 44.5°C

Current Barometer 29.1 in  
Volume (Ltr) 1.56

Settings  
Lamp: 1.87 V  
Bias: 80 V  
Cooler: 1.84 V  
Chopper: 537 Hz

Voltages (V)  
Flow: 1.07 V  
Detector: 0.074 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100667  
-----

Date: 03/12/2012  
Time: 14:39:58

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.971415    0.800 <= CAL < 1.200  
b1 = 0.0009    0.0000 <= b1 < 0.0040  
b2 = 0.0095    0.0010 <= b2 < 0.0100  
b3 = 0.0012    0.0000 <= b3 < 0.0040  
Xq = 0.1081    0.0500 <= Xq < 0.2000  
a21 = 1.213642    1.050 <= a21 < 1.300  
a31 = 0.473990    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100667

Date: 01/13/2016  
Time: 08:05:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

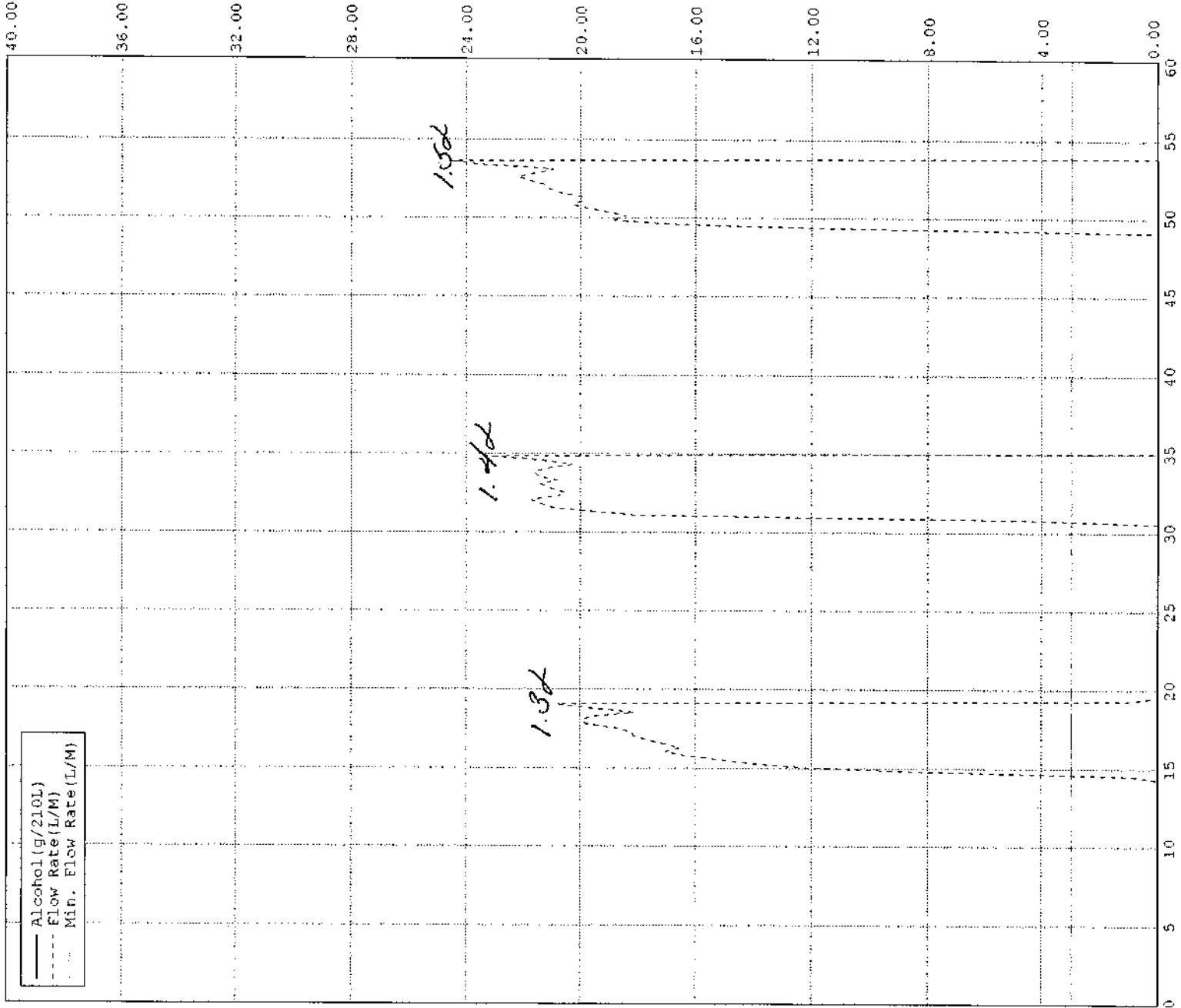
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.10: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	08:08
BLANK TEST	0.000	08:08
INTERNAL STANDARD	VERIFIED	08:08
EXTERNAL STANDARD	0.077	08:08
BLANK TEST	0.000	08:09
SUBJECT SAMPLE (Vol=1.51L)	0.000	08:10
BLANK TEST	0.000	08:11
EXTERNAL STANDARD	0.077	08:11
BLANK TEST	0.000	08:12



LINEARITY CHECK

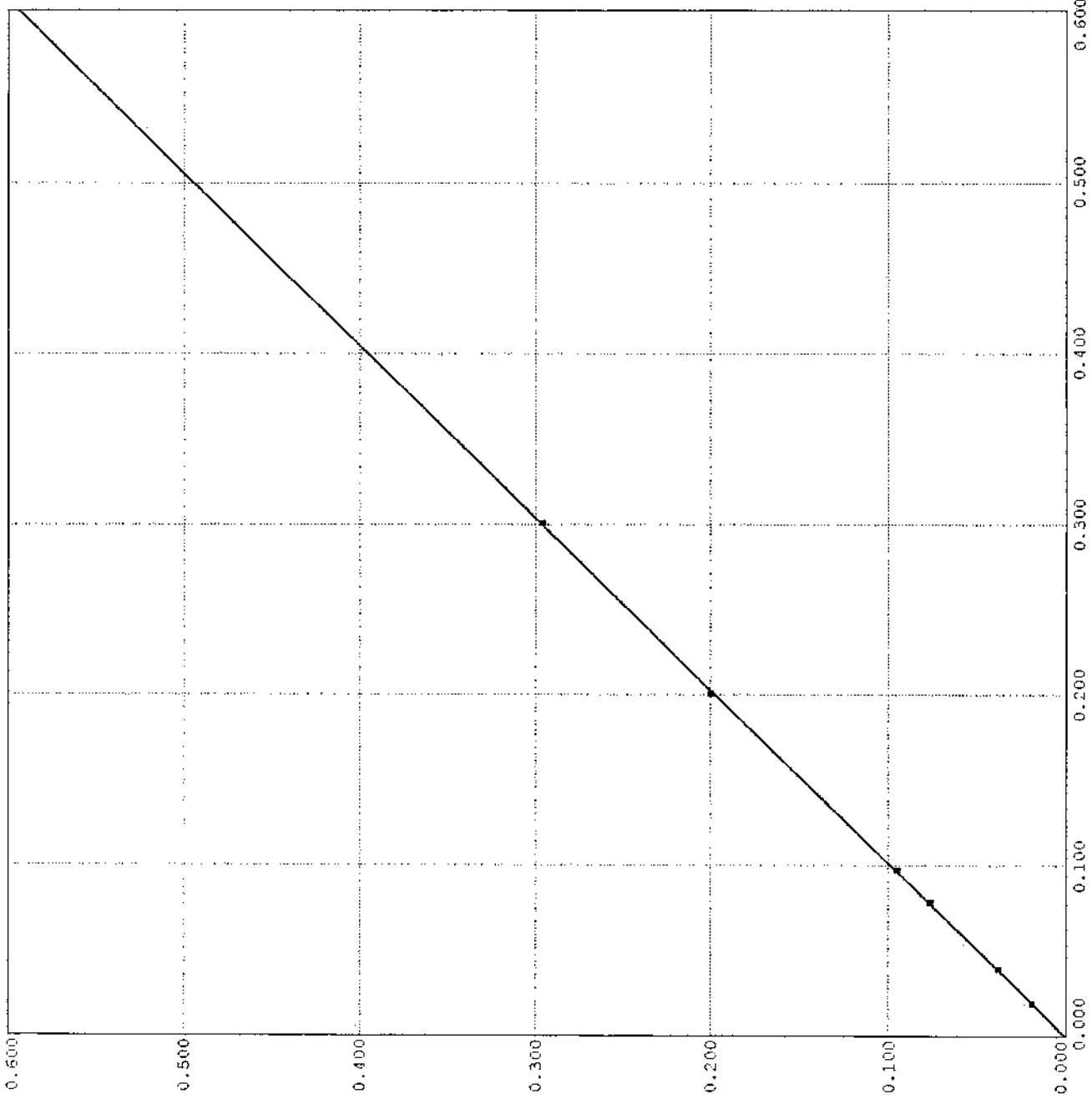
Alaska Department of Public Safety  
 DATAMASTER dmt: 100667

Date: 01/13/2016  
 Time: 08:17:45

SUPERVISOR NAME:  
 COLLEEN S O'BRYAN  
 OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.019	0.0200	0.0000
0.039	0.0392	0.0004
0.078	0.0772	0.0004
0.097	0.0960	0.0000
0.200	0.2006	0.0005
0.300	0.2968	0.0004

SLOPE = 0.989941  
 R<sup>2</sup> = 0.999899



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dnt: 100667

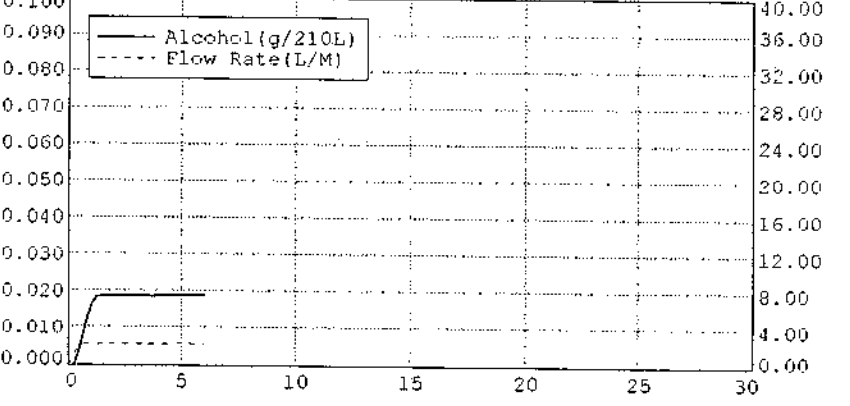
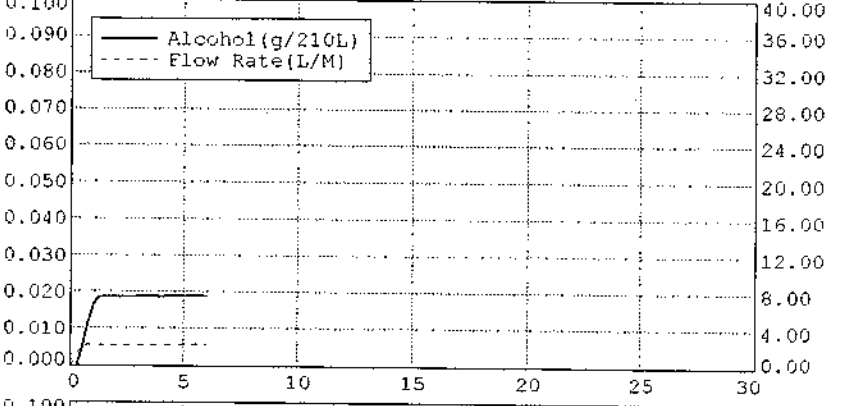
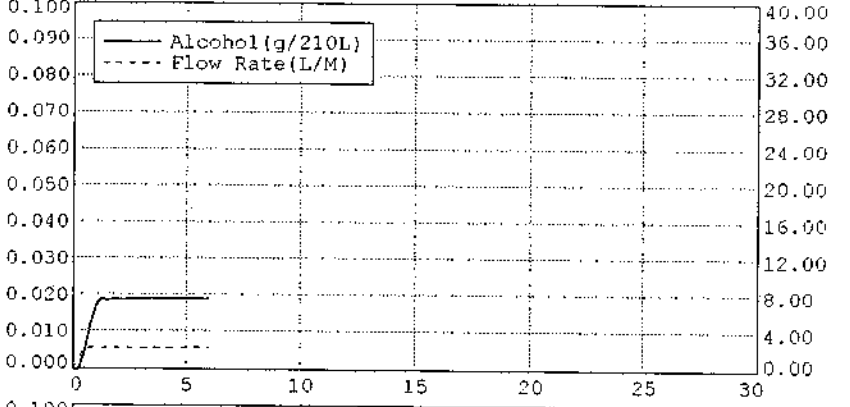
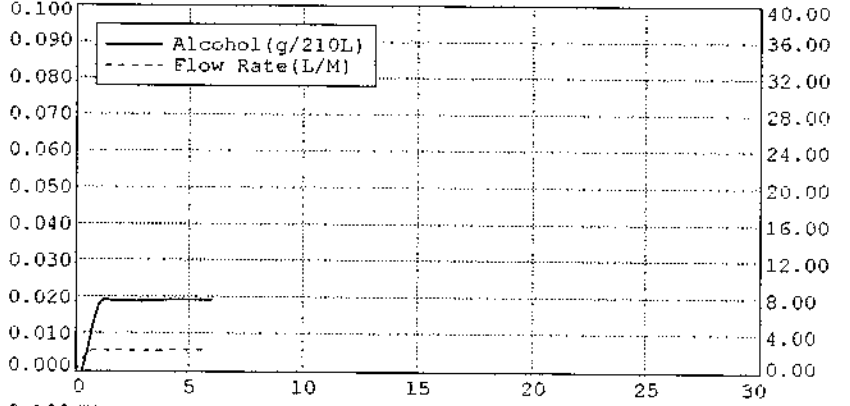
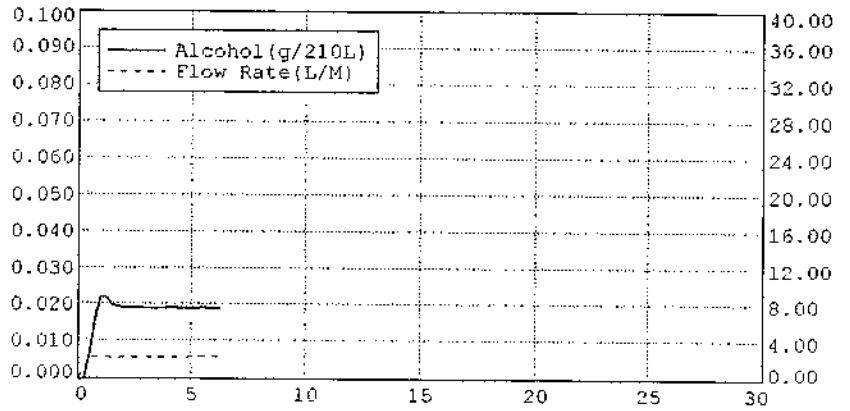
Date: 01/13/2016  
 Time: 08:17:47

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.11: 0.019  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1012 psi

BLANK TEST	0.000	08:23
INTERNAL STANDARD	VERIFIED	08:23
EXTERNAL STANDARD	0.020	08:24
BLANK TEST	0.000	08:24
EXTERNAL STANDARD	0.020	08:25
BLANK TEST	0.000	08:25
EXTERNAL STANDARD	0.020	08:26
BLANK TEST	0.000	08:27
EXTERNAL STANDARD	0.020	08:27
BLANK TEST	0.000	08:28
EXTERNAL STANDARD	0.020	08:28
BLANK TEST	0.000	08:29

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100667

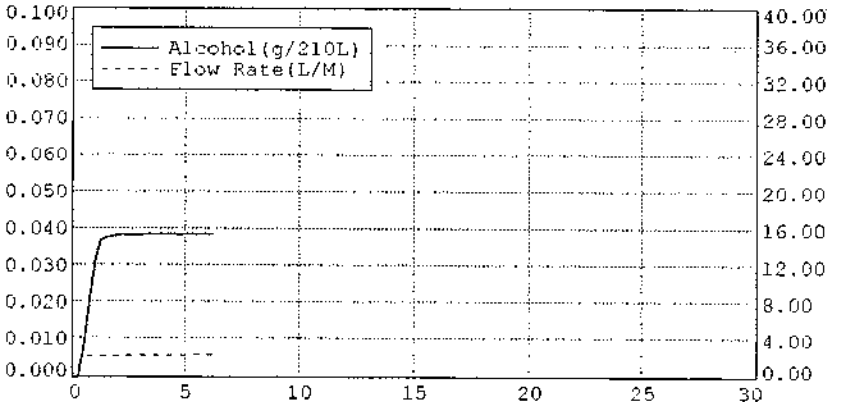
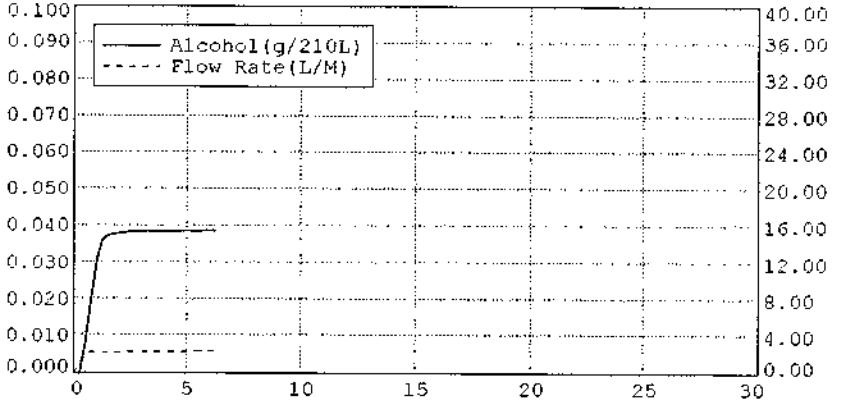
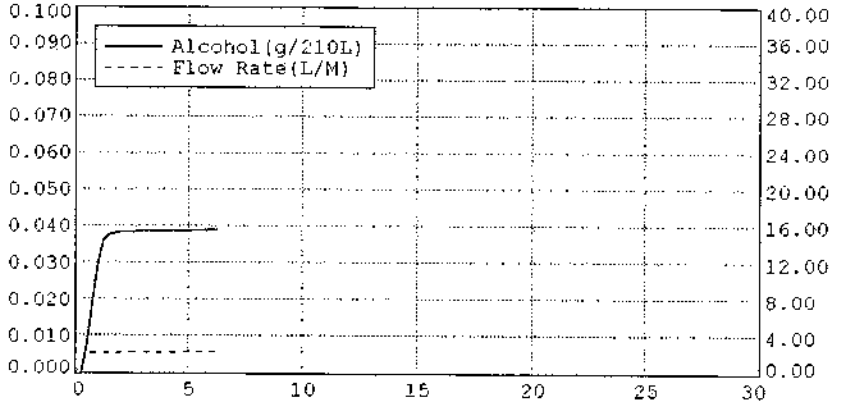
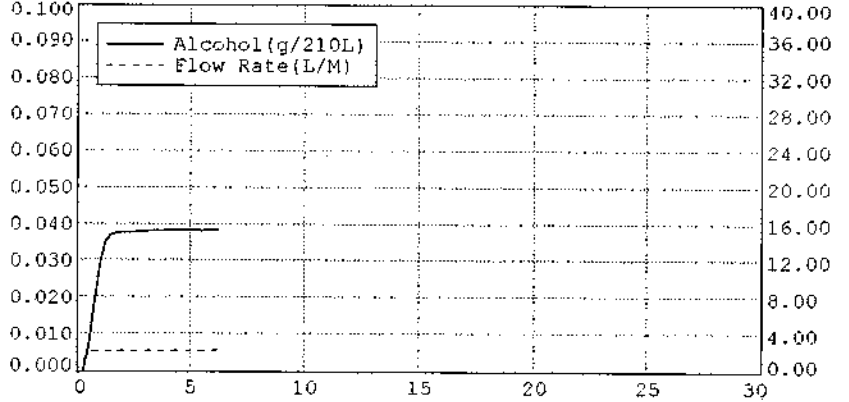
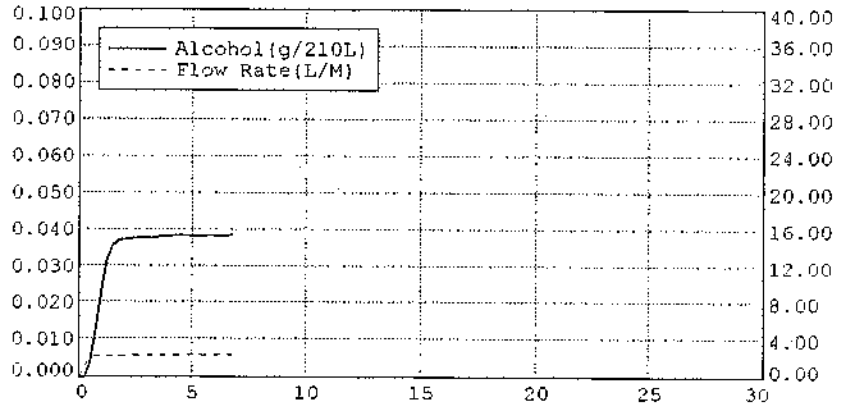
Date: 01/13/2016  
 Time: 08:30:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.11: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1046 psi

BLANK TEST	0.000	08:31
INTERNAL STANDARD	VERIFIED	08:31
EXTERNAL STANDARD	0.039	08:32
BLANK TEST	0.000	08:32
EXTERNAL STANDARD	0.039	08:33
BLANK TEST	0.000	08:34
EXTERNAL STANDARD	0.040	08:34
BLANK TEST	0.000	08:35
EXTERNAL STANDARD	0.039	08:35
BLANK TEST	0.000	08:36
EXTERNAL STANDARD	0.039	08:36
BLANK TEST	0.000	08:37

Average = 0.0392  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100667

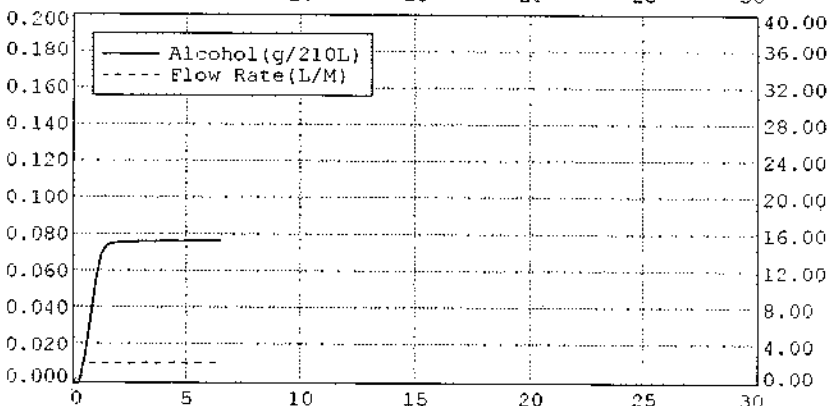
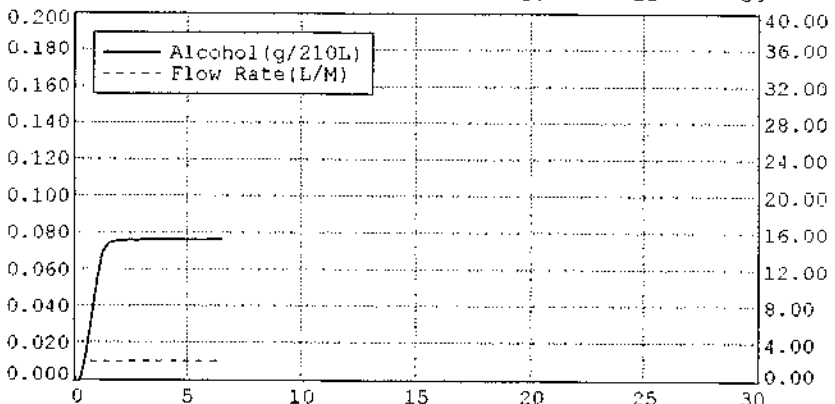
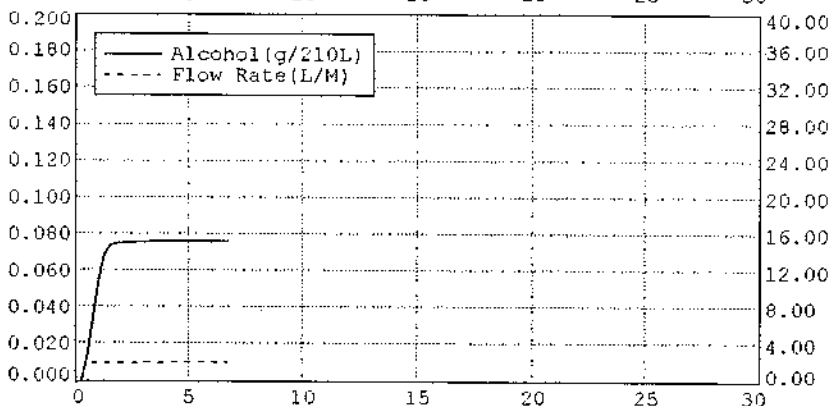
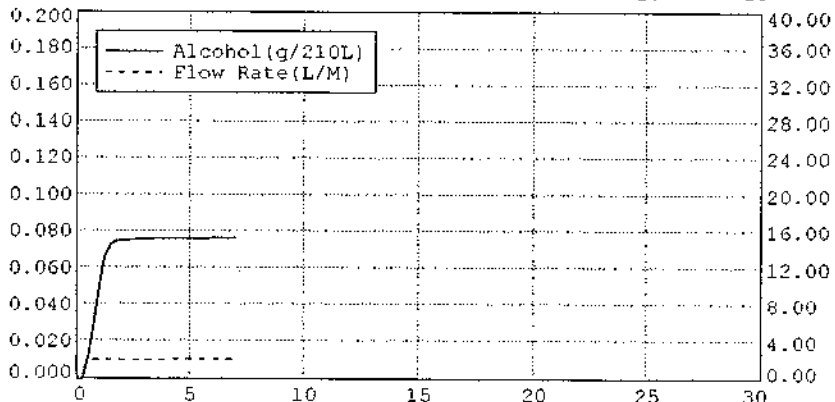
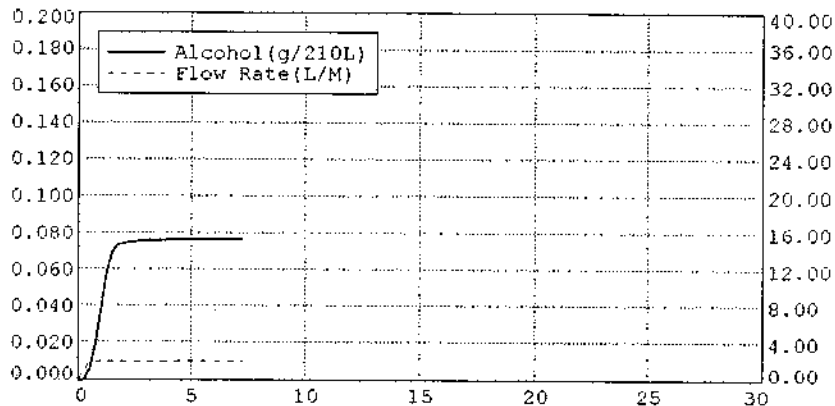
Date: 01/13/2016  
 Time: 08:38:11

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.11: 0.078  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 257 psi

BLANK TEST	0.000	08:39
INTERNAL STANDARD	VERIFIED	08:39
EXTERNAL STANDARD	0.078	08:39
BLANK TEST	0.000	08:40
EXTERNAL STANDARD	0.077	08:40
BLANK TEST	0.000	08:41
EXTERNAL STANDARD	0.077	08:41
BLANK TEST	0.000	08:42
EXTERNAL STANDARD	0.077	08:43
BLANK TEST	0.000	08:43
EXTERNAL STANDARD	0.077	08:44
BLANK TEST	0.000	08:45

Average = 0.0772  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100667

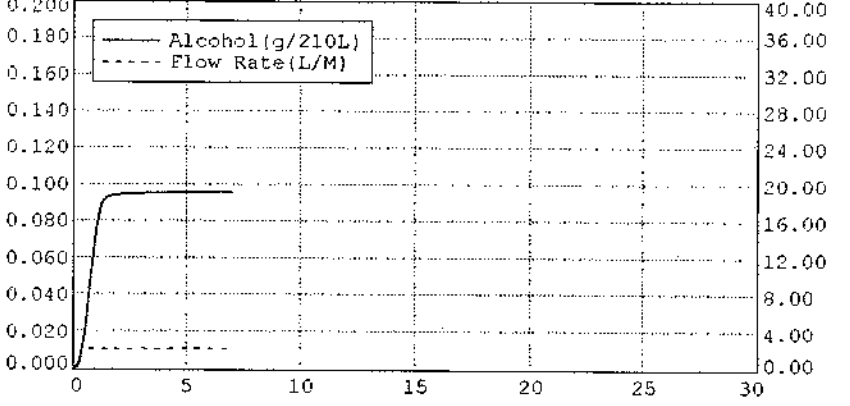
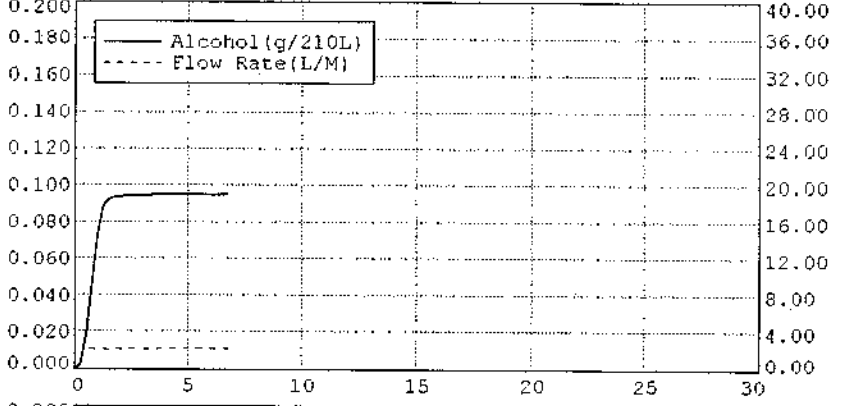
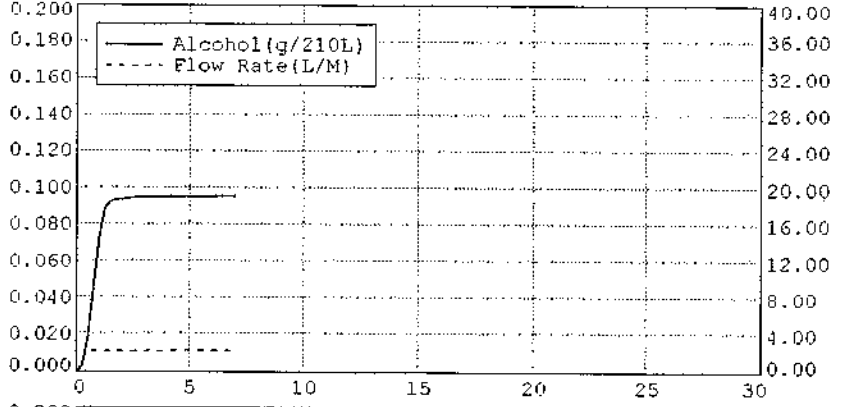
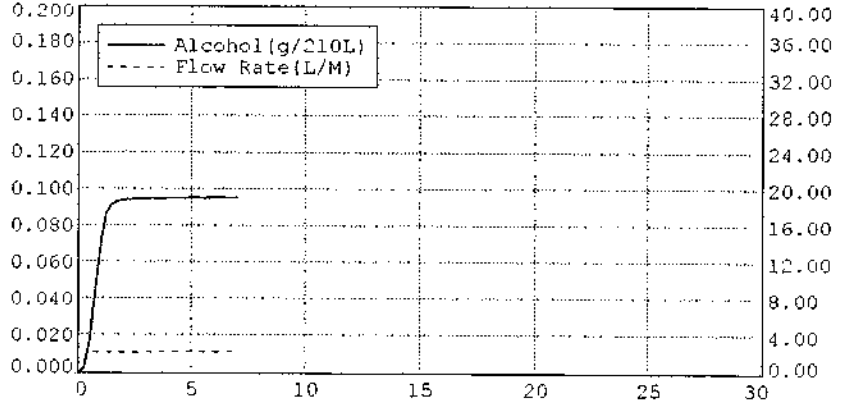
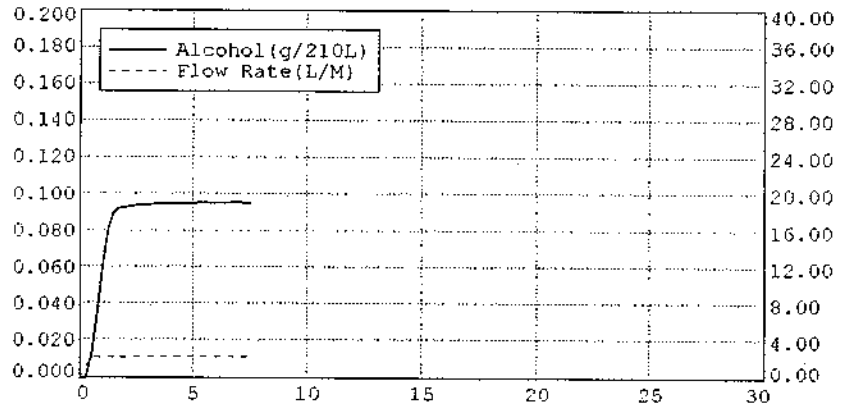
Date: 01/13/2016  
 Time: 08:47:31

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.11: 0.097  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 800 psi

BLANK TEST	0.000	08:48
INTERNAL STANDARD	VERIFIED	08:48
EXTERNAL STANDARD	0.096	08:49
BLANK TEST	0.000	08:49
EXTERNAL STANDARD	0.096	08:50
BLANK TEST	0.000	08:51
EXTERNAL STANDARD	0.096	08:51
BLANK TEST	0.000	08:52
EXTERNAL STANDARD	0.096	08:52
BLANK TEST	0.000	08:53
EXTERNAL STANDARD	0.096	08:53
BLANK TEST	0.000	08:54

Average = 0.0960  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100667

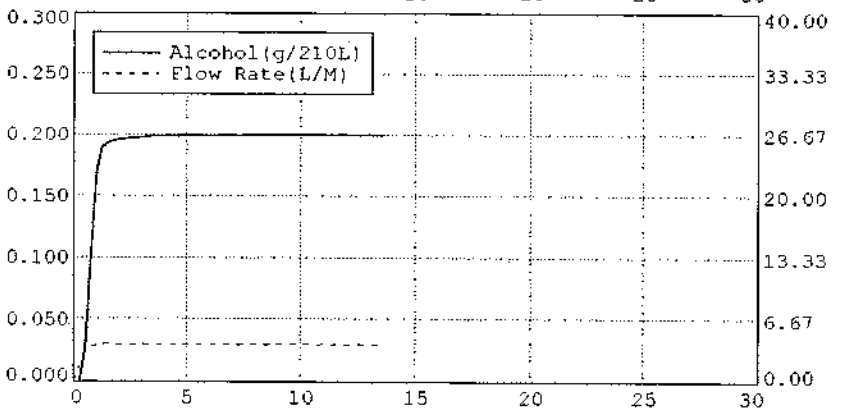
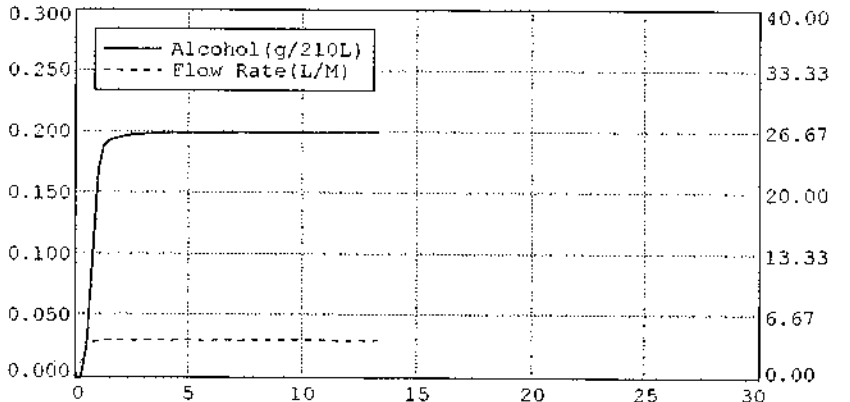
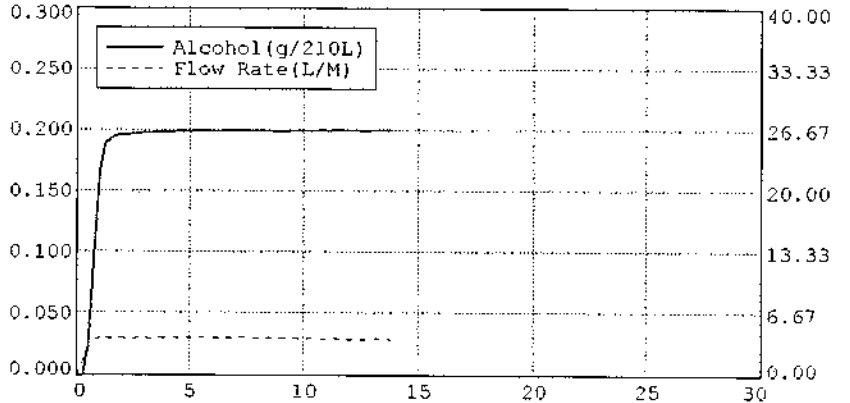
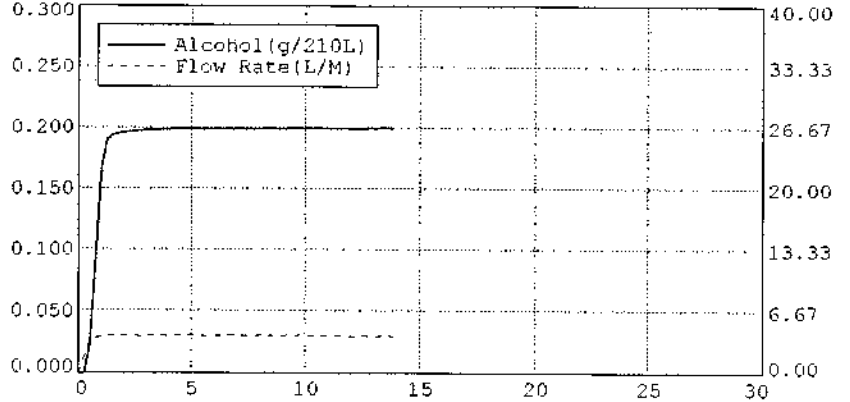
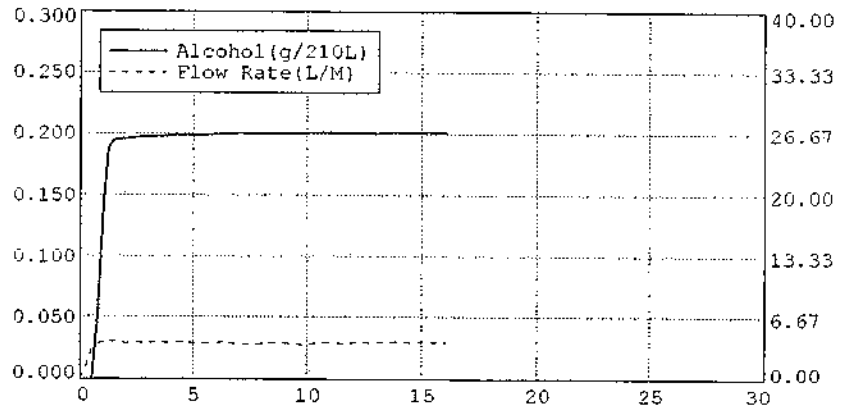
Date: 01/13/2016  
 Time: 08:55:58

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	08:58
INTERNAL STANDARD	VERIFIED	08:58
EXTERNAL STANDARD	0.201	08:58
BLANK TEST	0.000	08:59
EXTERNAL STANDARD	0.200	09:00
BLANK TEST	0.000	09:00
EXTERNAL STANDARD	0.201	09:01
BLANK TEST	0.000	09:02
EXTERNAL STANDARD	0.200	09:02
BLANK TEST	0.000	09:03
EXTERNAL STANDARD	0.201	09:03
BLANK TEST	0.000	09:04

Average = 0.2006  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100667

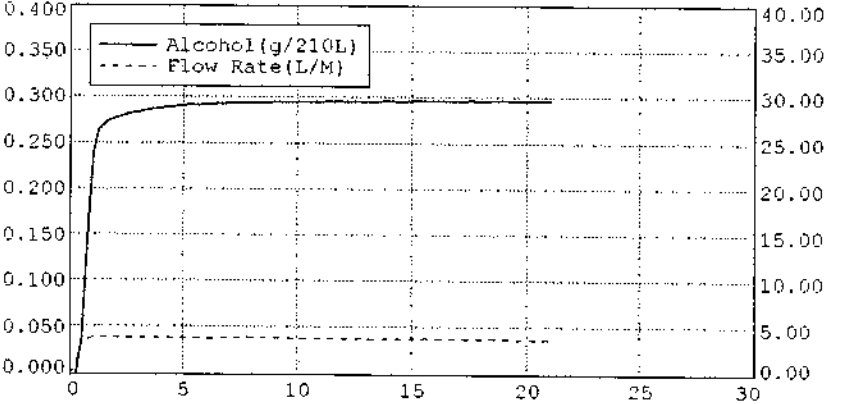
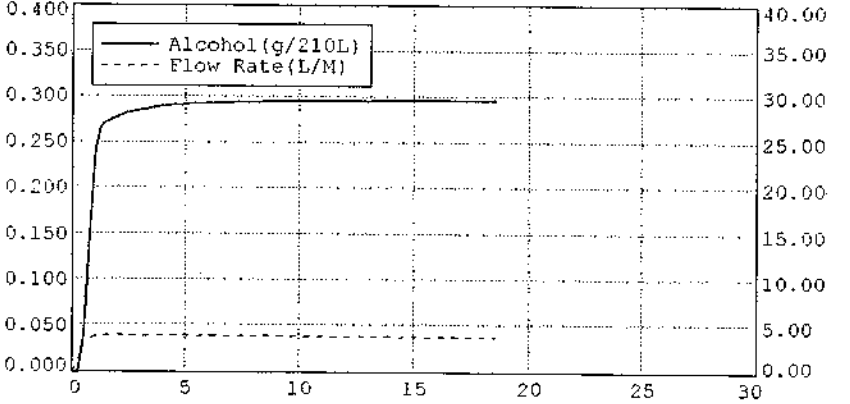
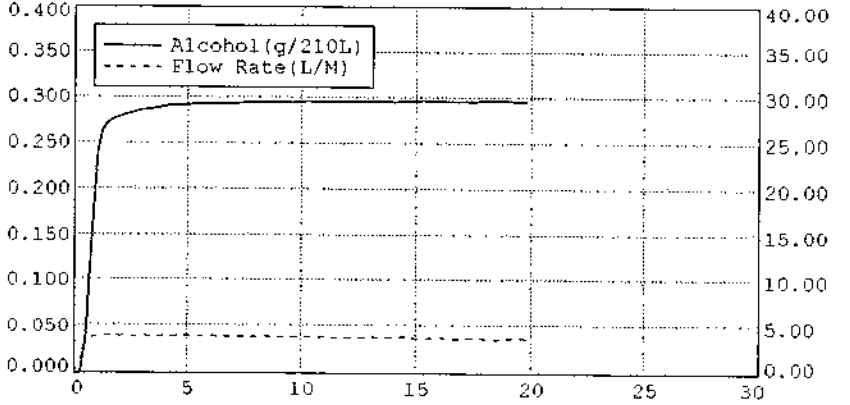
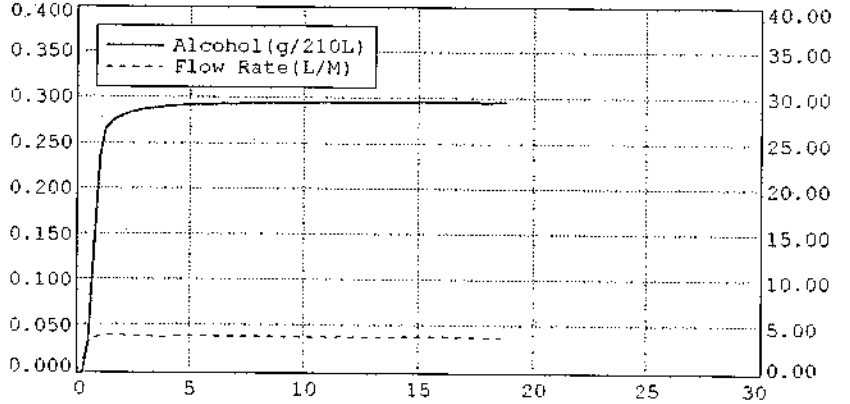
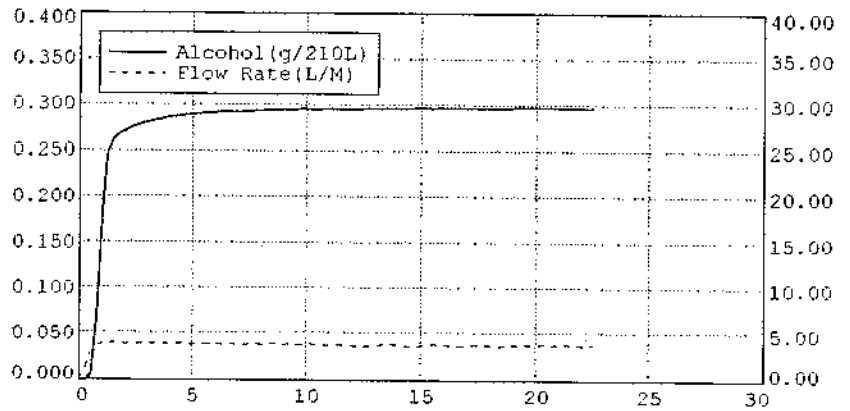
Date: 01/13/2016  
 Time: 09:06:28

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	09:07
INTERNAL STANDARD	VERIFIED	09:07
EXTERNAL STANDARD	0.297	09:08
BLANK TEST	0.000	09:09
EXTERNAL STANDARD	0.297	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.297	09:10
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.296	09:12
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.297	09:13
BLANK TEST	0.000	09:14

Average = 0.2968  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dnt: 190667

Date: 01/13/2016  
Time: 09:20:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

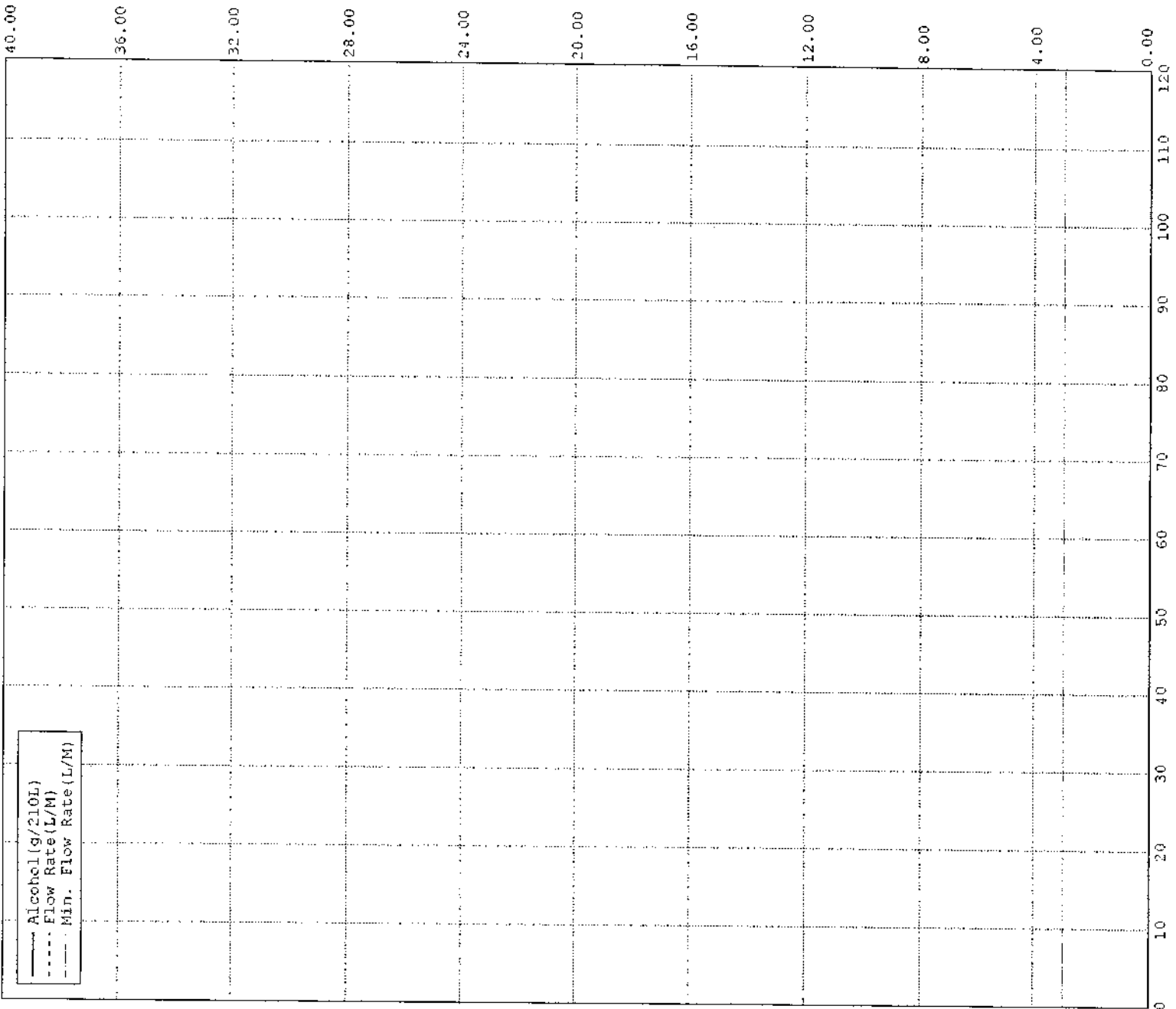
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.13: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 09:42  
BLANK TEST 0.000 09:42  
INTERNAL STANDARD VERIFIED 09:42  
EXTERNAL STANDARD 0.077 09:42  
BLANK TEST 0.000 09:43  
SUBJECT SAMPLE INCOMPLETE 09:45

CB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100667

Date: 01/13/2016  
Time: 10:11:09

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

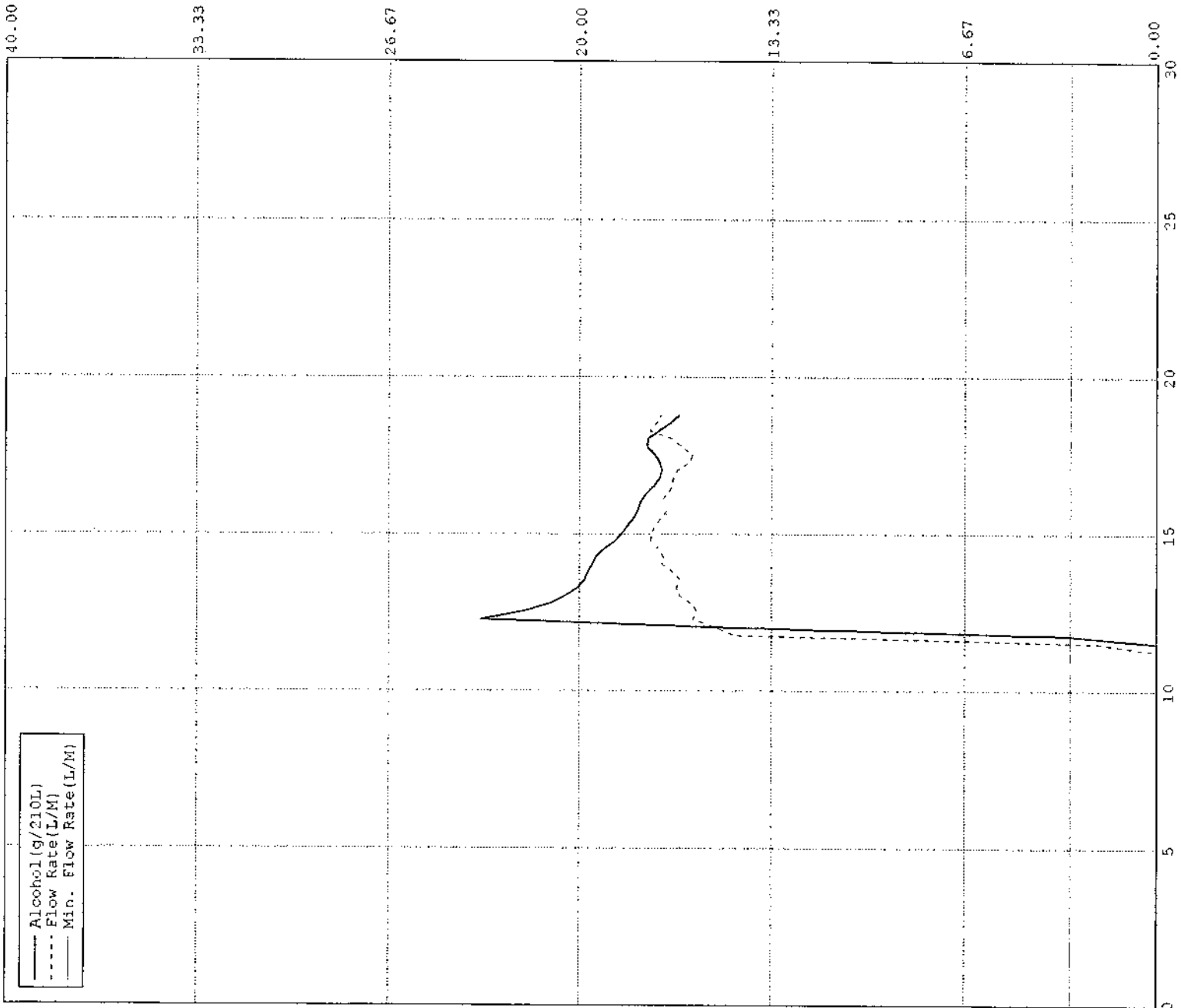
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.15: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:13  
BLANK TEST 0.000 10:13  
INTERNAL STANDARD VERIFIED 10:13  
EXTERNAL STANDARD 0.077 10:13  
BLANK TEST 0.000 10:14  
SUBJECT SAMPLE INVALID 10:15

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100667

Date: 01/13/2016  
Time: 10:27:11

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

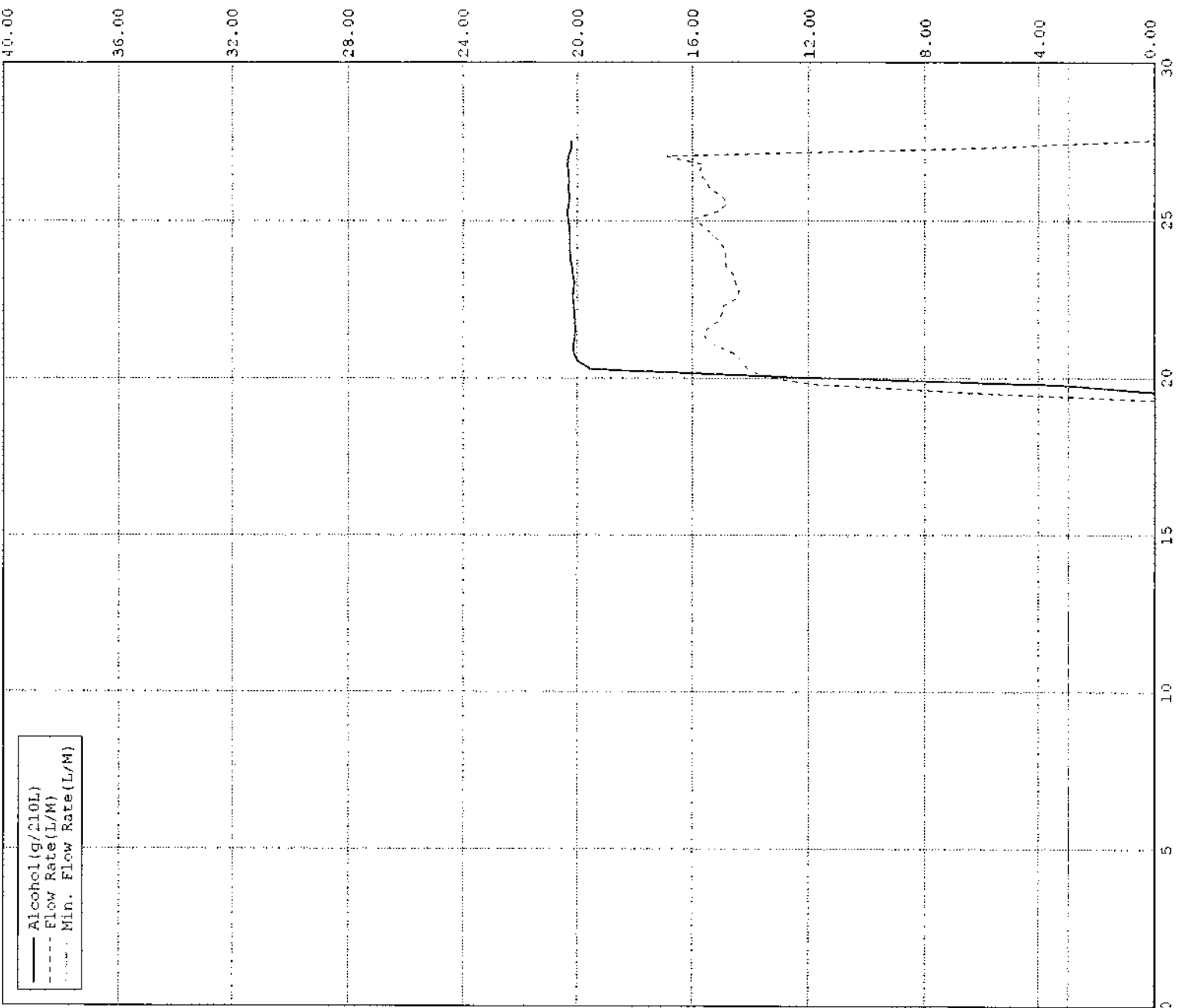
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.15: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:28  
BLANK TEST 0.000 10:28  
INTERNAL STANDARD VERIFIED 10:28  
Xq = 0.108 (0.00%) 0.077 10:29  
EXTERNAL STANDARD 0.000 10:30  
X[1] = 0.0771 (-0.0026) (0.0015)  
BLANK TEST 0.000 10:30  
SUBJECT SAMPLE XXX 10:30  
X[1] = 0.1018 (-0.0142) (0.0005)

Interference Detected

*COB*



SUBJECT TEST

Alaska Department of Public Safety  
DAPAMASTER dmt: 100667

Date: 01/13/2016  
Time: 10:33:14

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

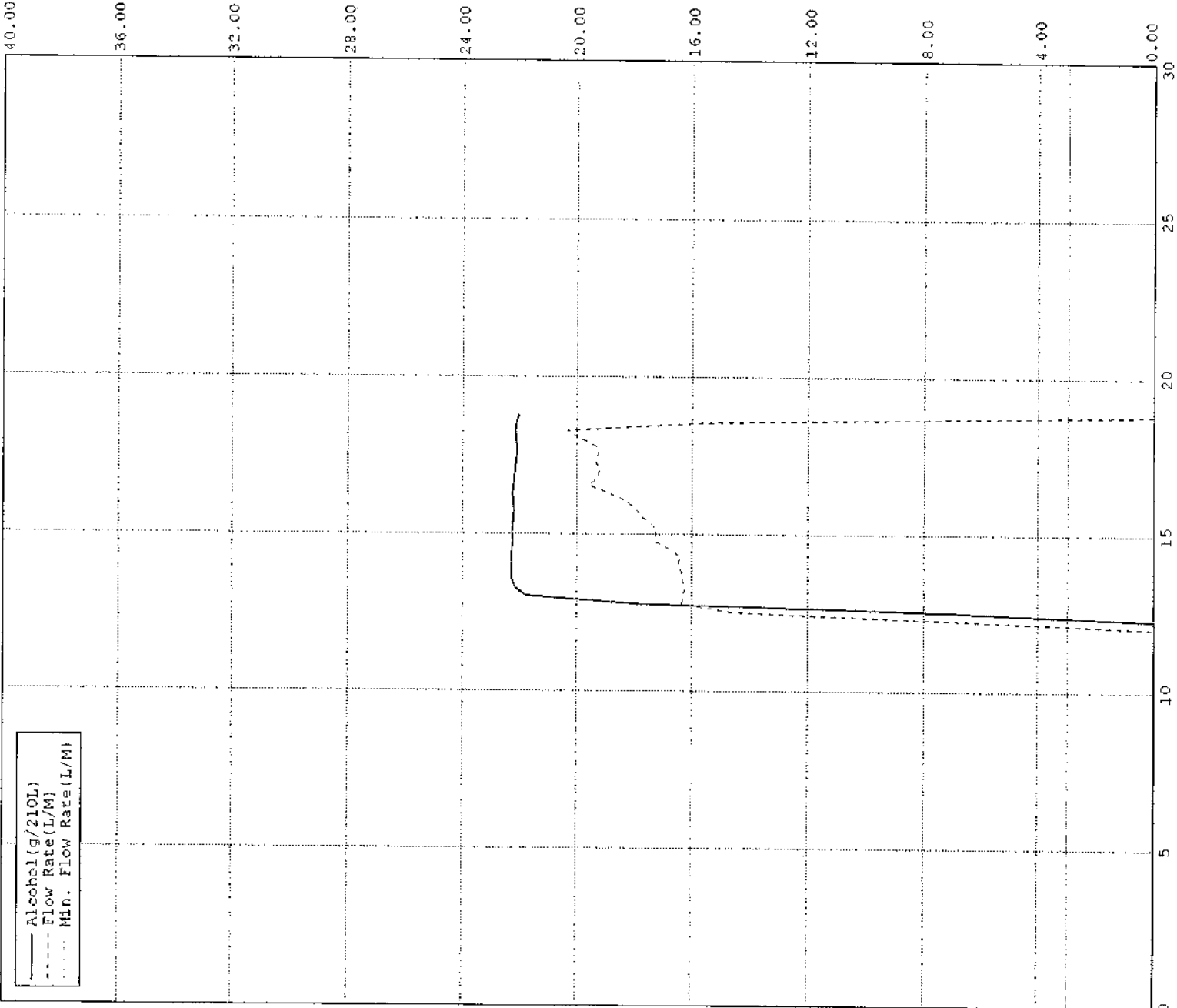
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.15: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:34
BLANK TEST	0.000	10:34
INTERNAL STANDARD	VERIFIED	10:34
Xq = 0.108 (0.33%)		
EXTERNAL STANDARD	0.077	10:34
X[1] = 0.0775 (-0.0027) (0.0012)		
BLANK TEST	0.000	10:35
SUBJECT SAMPLE	XXX	10:36
X[1] = 0.1103 (-0.0253) (0.0006)		

Interference Detected

(100)





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100667

Date: 01/13/2016  
Time: 10:39:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

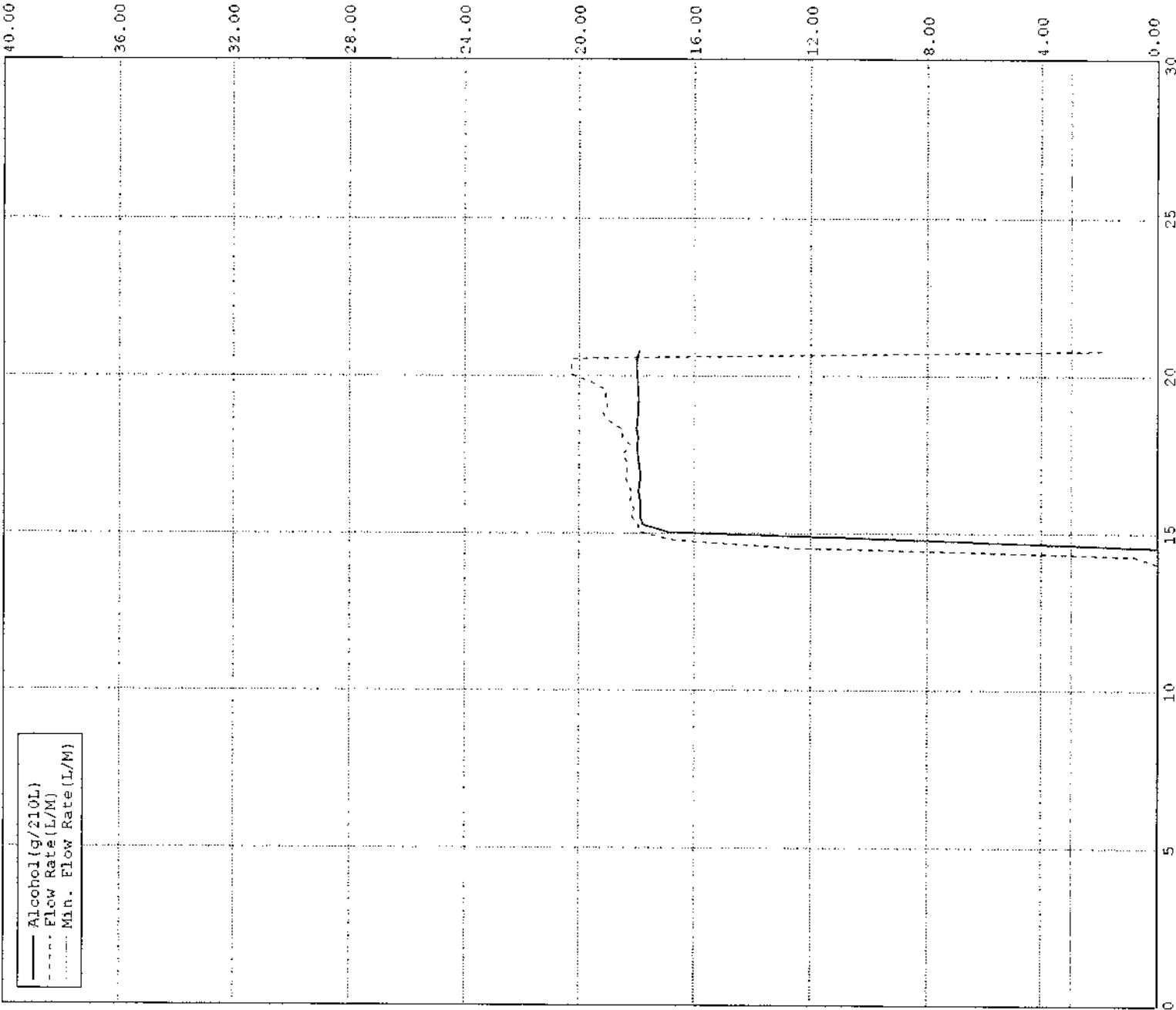
NOMINAL: 0.080  
TARGET AT 29.15: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	10:41
BLANK TEST	0.000	10:41
INTERNAL STANDARD	VERIFIED	10:41
Xq = 0.108 (0.24%)		
EXTERNAL STANDARD	0.077	10:41
X[1] = 0.0774 (-0.0025) (0.0012)		
BLANK TEST	0.000	10:42
SUBJECT SAMPLE (Vol=1.92L)	0.089	10:43
X[1] = 0.0898 (0.0020) (0.0013)		
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.077	10:44
X[1] = 0.0772 (-0.0023) (0.0014)		
BLANK TEST	0.000	10:45

*Filter 2 avg = -0.0025*

*Filter 3 avg = 0.0013*

*COB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100667

Date: 01/13/2016  
Time: 10:57:24

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

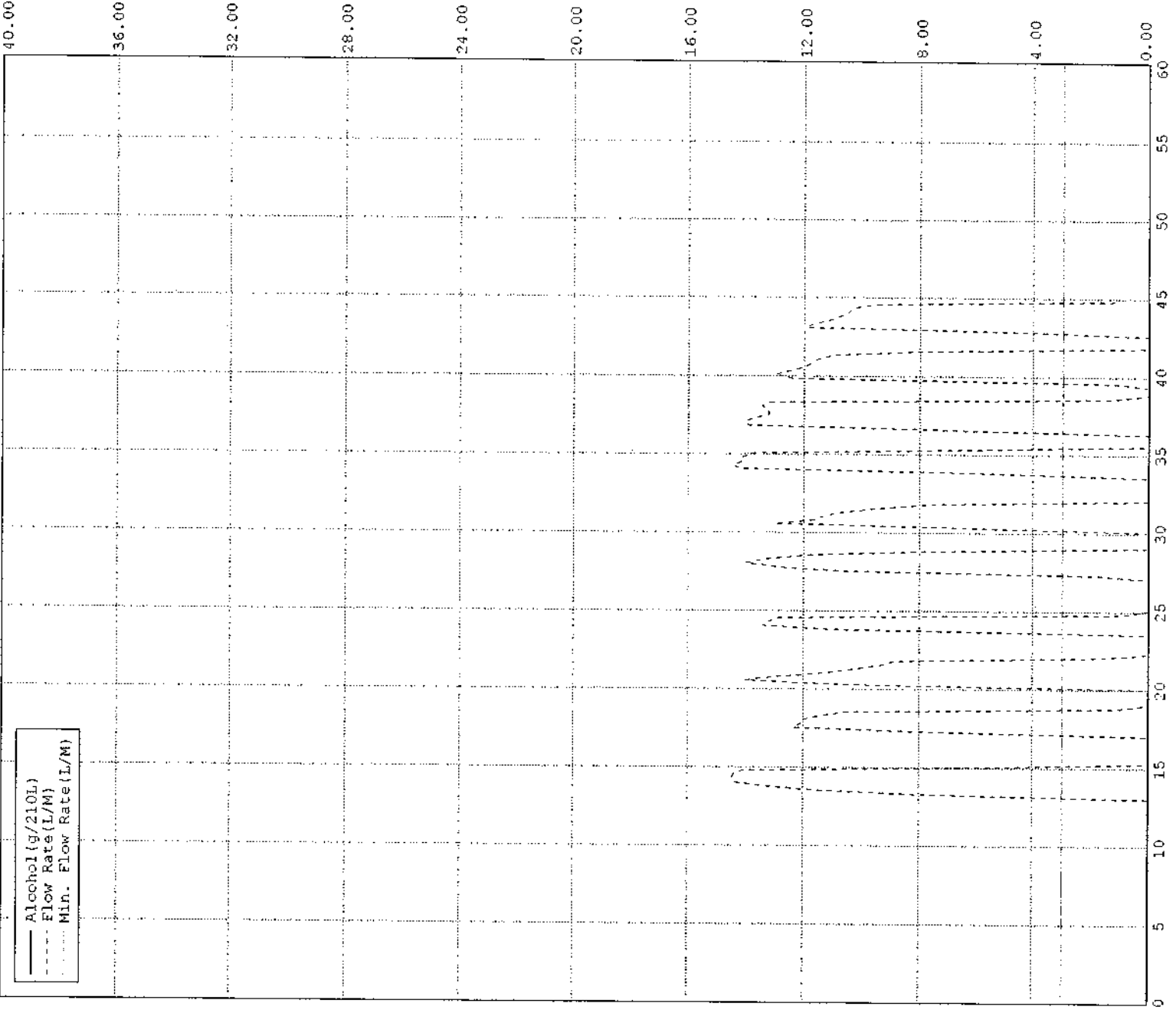
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.15: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 10:59  
BLANK TEST 0.000 10:59  
INTERNAL STANDARD VERIFIED 10:59  
EXTERNAL STANDARD 0.077 10:59  
BLANK TEST 0.000 11:00  
SUBJECT SAMPLE XXX 11:01

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DAMMASTER dmt: 100667

Date: 01/13/2016  
Time: 11:04:50

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

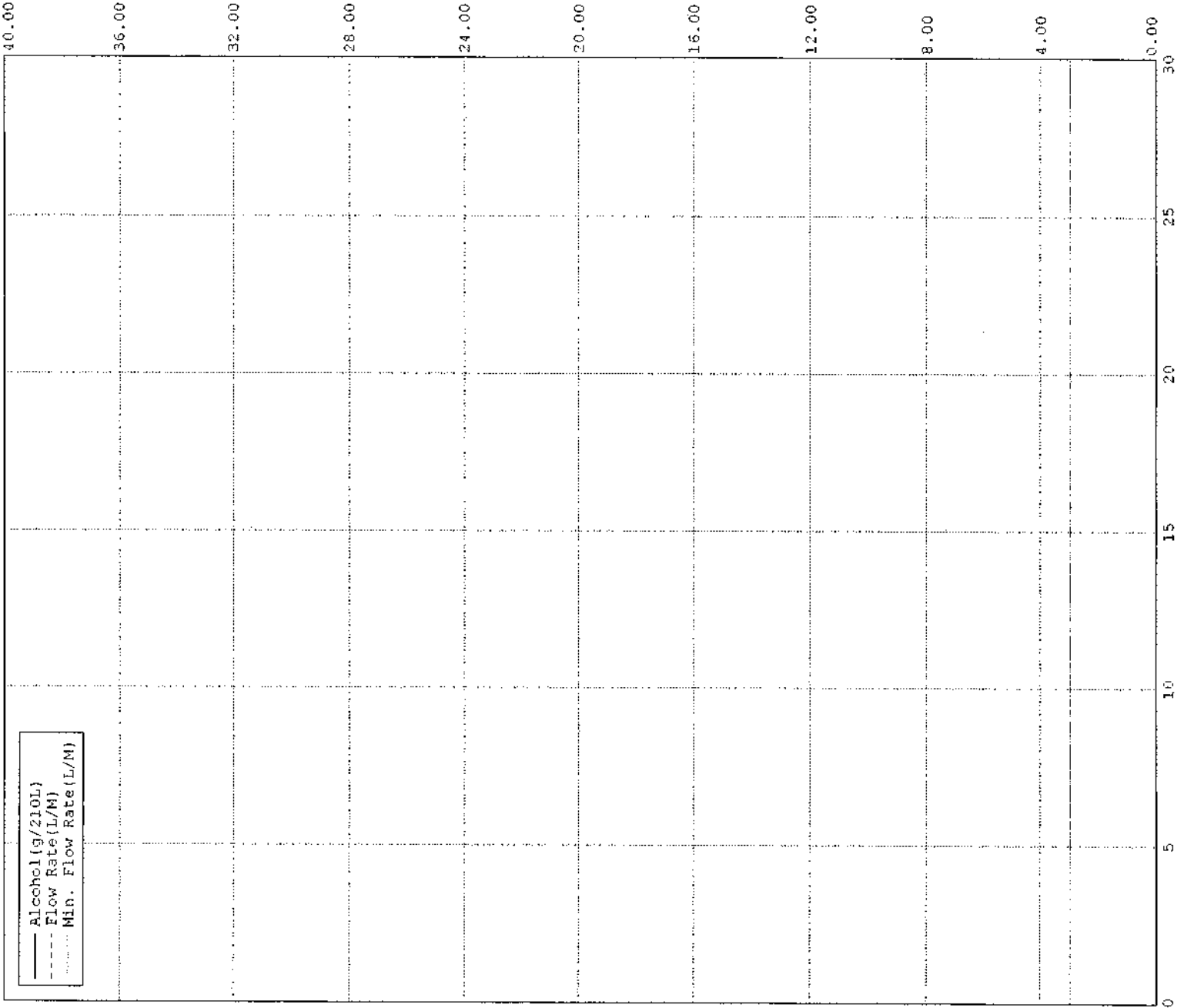
OPERATOR NAME:  
COLLEEN S OBRVANT  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.15: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 11:06  
BLANK TEST 0.000 11:06  
INTERNAL STANDARD VERIFIED 11:06  
EXTERNAL STANDARD 0.078 11:06  
BLANK TEST 0.000 11:07

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100667

Date: 01/13/2016  
Time: 11:21:39

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.16: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:22
BLANK TEST	0.000	11:22
INTERNAL STANDARD	VERIFIED	11:23
EXTERNAL STANDARD	0.078	11:23
BLANK TEST	0.000	11:24
SUBJECT SAMPLE (Vol=1.79L)	0.000	11:24
BLANK TEST	0.000	11:25
EXTERNAL STANDARD	0.078	11:25
BLANK TEST	0.000	11:26

