

# 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 100365 Analyst Colleen Bryant Start Date 10/28/15

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 1.6 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 01315080A2 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 DR6267 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/16
  - 1. Simulator S/N DR4162 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 DR4163 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1170 Date Calibrated 1/20/15
- iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N DR4178 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 11/2/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 10/28/2015  
Time: 10:56:50

VERSIONS

DMT: 3.01  
PIC: 3.02  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.0°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 46.7°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.10 V PASSED  
(1.26 V - 2.94 V)  
Cooler Voltage = 2.09 V PASSED  
(1.25 V - 2.93 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 535 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.0 in

PUMP INFO

Flow Rate = 4.666 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 = 0.101 0.70% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100365  
-----

Date: 10/28/2015  
Time: 11:57 AM

Temperatures (°C)

Sample Cell: 49.2°C  
Breath Tube: 45.8°C

Current Barometer 29.0 in  
Volume (Ltr) 1.42

Settings

Lamp: 2.15 V  
Bias: 80 V  
Cooler: 2.09 V  
Chopper: 535 Hz

Voltages (V)

Flow: 1.04 V  
Detector: -0.060 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100365  
-----

Date: 10/06/2015  
Time: 05:21:45

Ca = 0.1000  
CAL = 0.985477 0.800 <= CAL < 1.200  
b1 = 0.0002 0.0000 <= b1 < 0.0040  
b2 = 0.0040 0.0010 <= b2 < 0.0100  
b3 = 0.0007 0.0000 <= b3 < 0.0040  
Xq = 0.1004 0.0500 <= Xq < 0.2000  
a21 = 1.169556 1.050 <= a21 < 1.300  
a31 = 0.461121 0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 10/28/2015  
Time: 11:59:02

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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

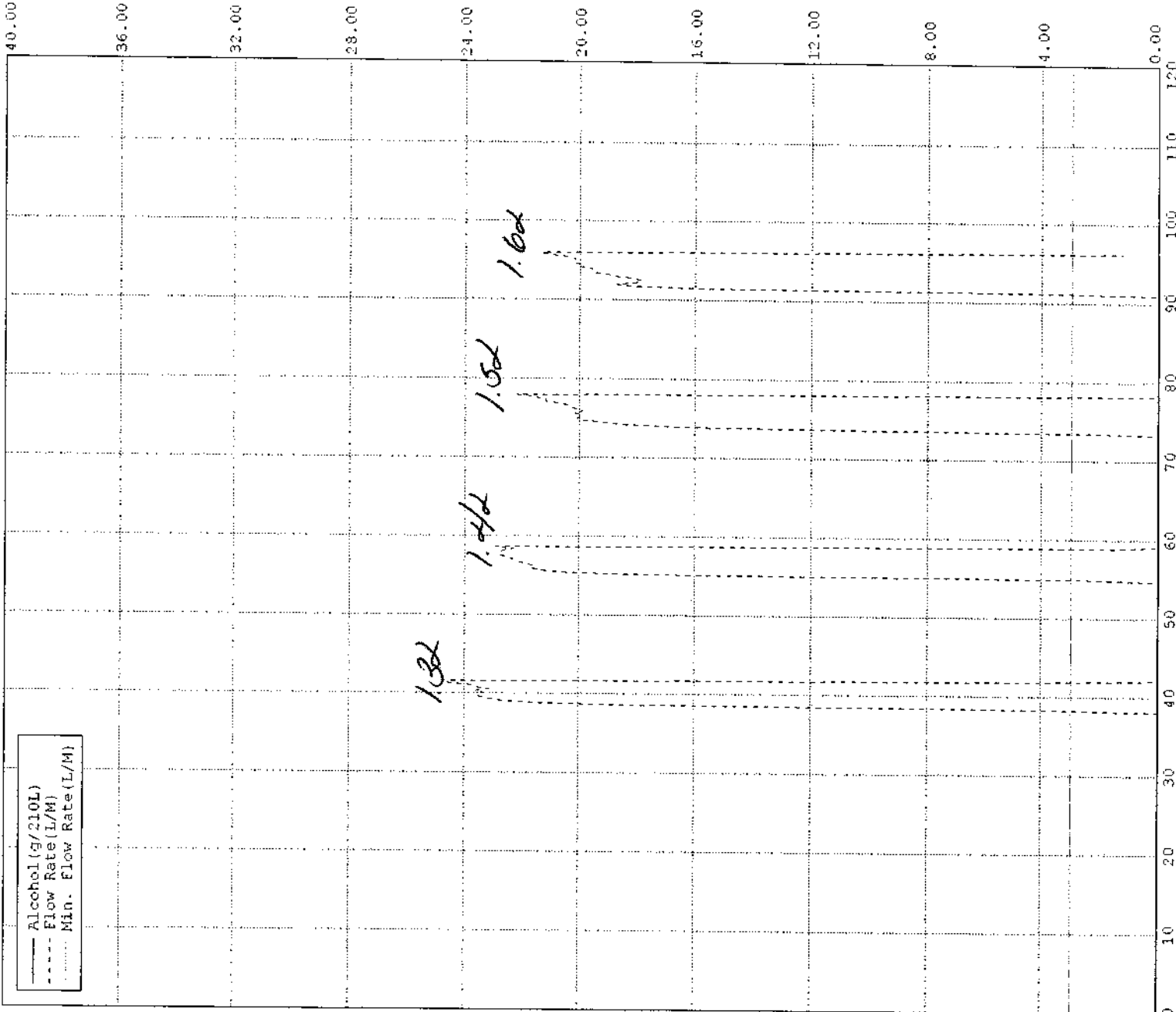
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.04: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 12:00  
BLANK TEST 0.000 12:01  
INTERNAL STANDARD VERIFIED 12:01  
EXTERNAL STANDARD 0.076 12:01  
BLANK TEST 0.000 12:02  
SUBJECT SAMPLE (Vol=1.54L) 0.000 12:03  
BLANK TEST 0.000 12:04  
EXTERNAL STANDARD 0.077 12:05  
BLANK TEST 0.000 12:06

Alcohol (g/210L)  
Flow Rate (L/M)  
Min. Flow Rate (L/M)



LINEARITY CHECK

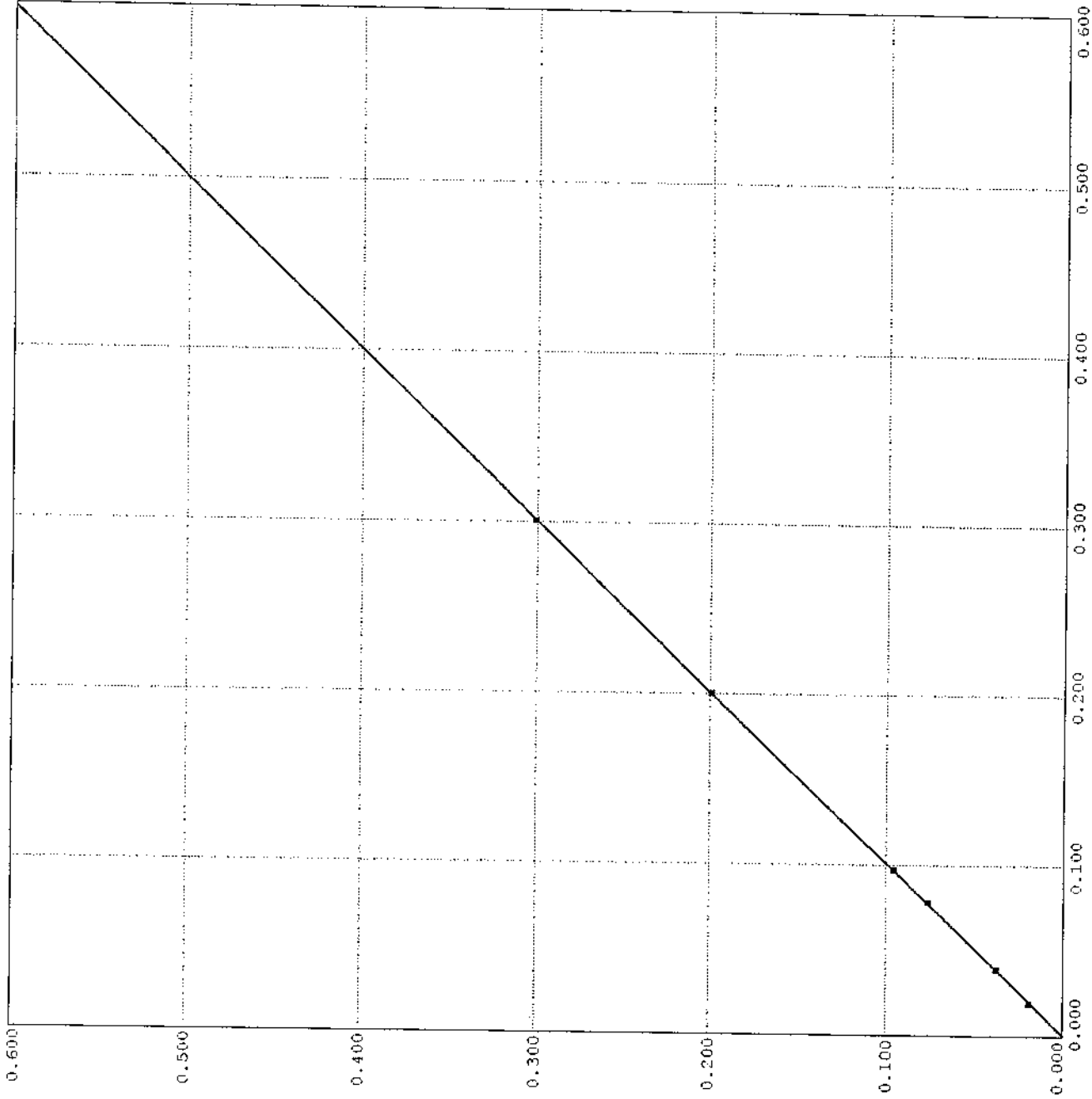
Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

Date: 10/28/2015  
 Time: 12:14:09

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0200	0.0000
0.039	0.0388	0.0004
0.078	0.0772	0.0004
0.097	0.0966	0.0005
0.200	0.2000	0.0000
0.300	0.3014	0.0005

SLOPE = 1.003594  
 R<sup>2</sup> = 0.999950



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

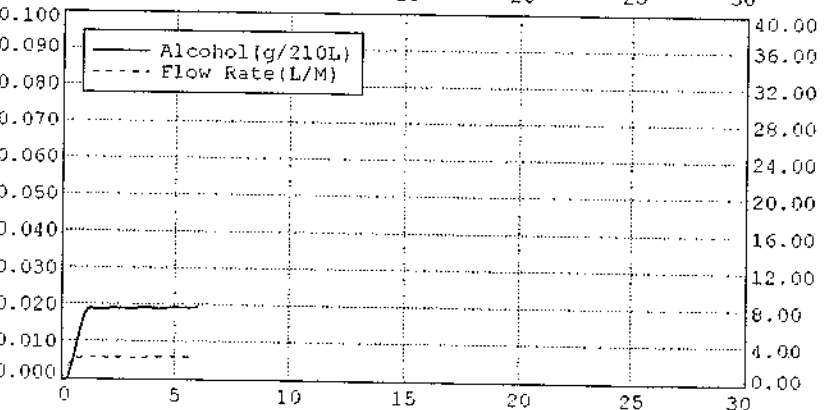
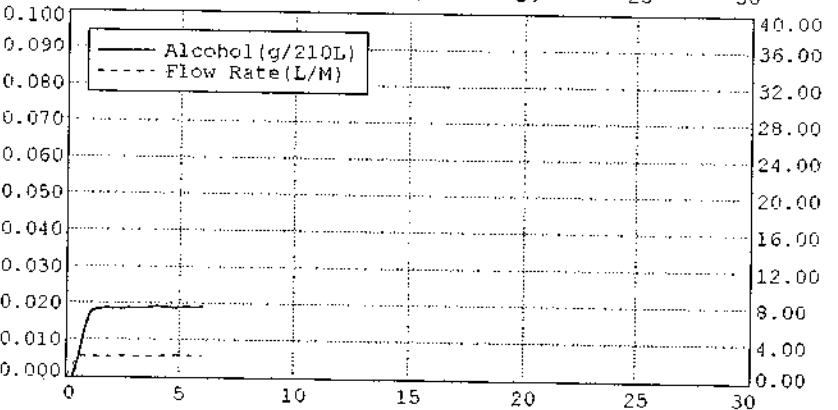
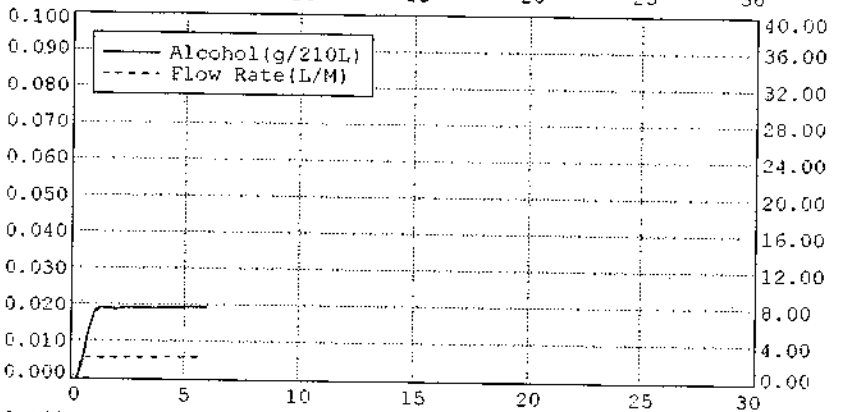
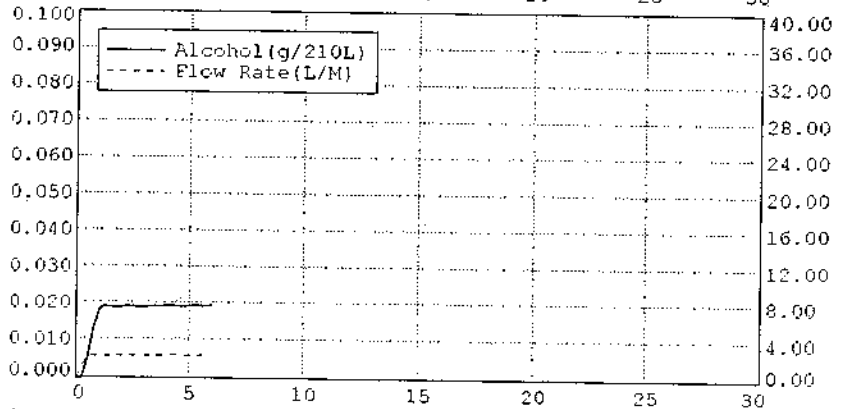
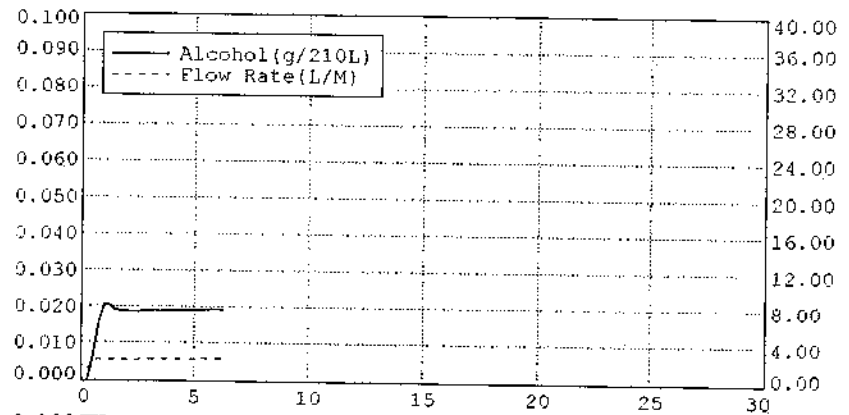
Date: 10/28/2015  
 Time: 12:14:11

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.04: 0.019  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 869 psi

BLANK TEST	0.000	12:16
INTERNAL STANDARD	VERIFIED	12:16
EXTERNAL STANDARD	0.020	12:16
BLANK TEST	0.000	12:17
EXTERNAL STANDARD	0.020	12:17
BLANK TEST	0.000	12:18
EXTERNAL STANDARD	0.020	12:18
BLANK TEST	0.000	12:19
EXTERNAL STANDARD	0.020	12:19
BLANK TEST	0.000	12:20
EXTERNAL STANDARD	0.020	12:21
BLANK TEST	0.000	12:21

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

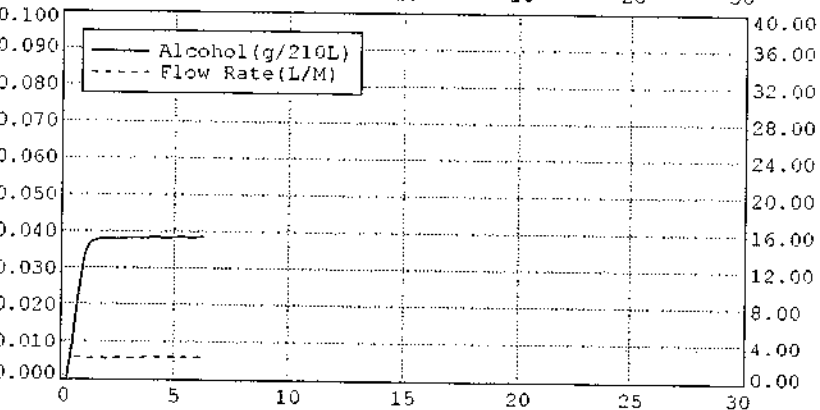
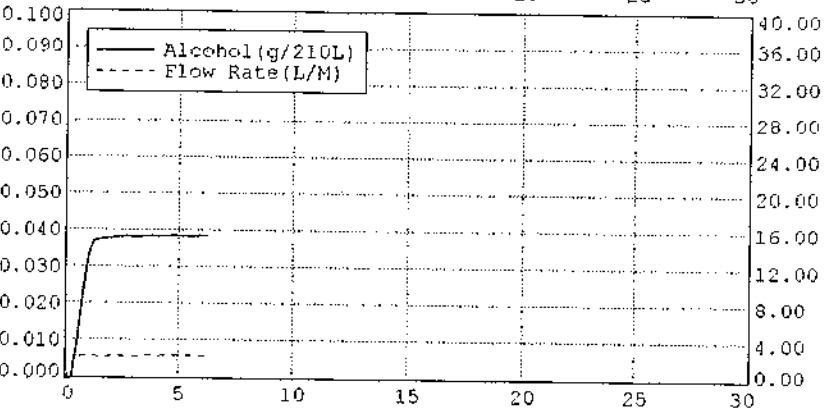
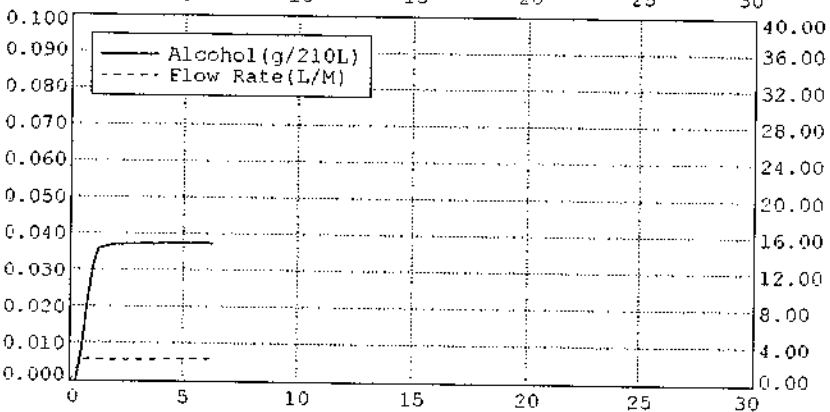
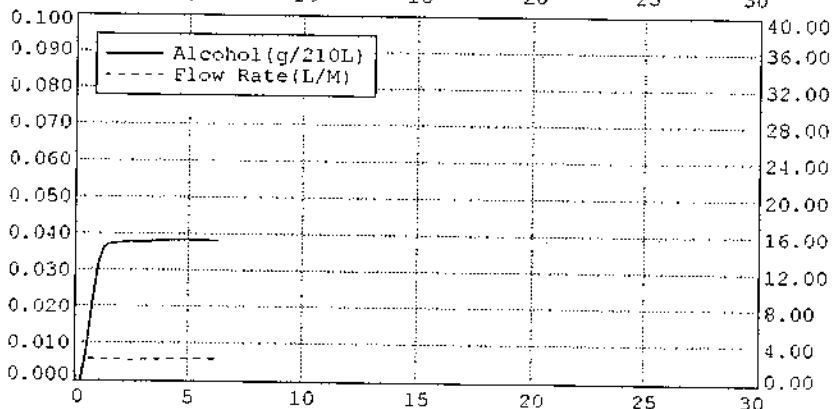
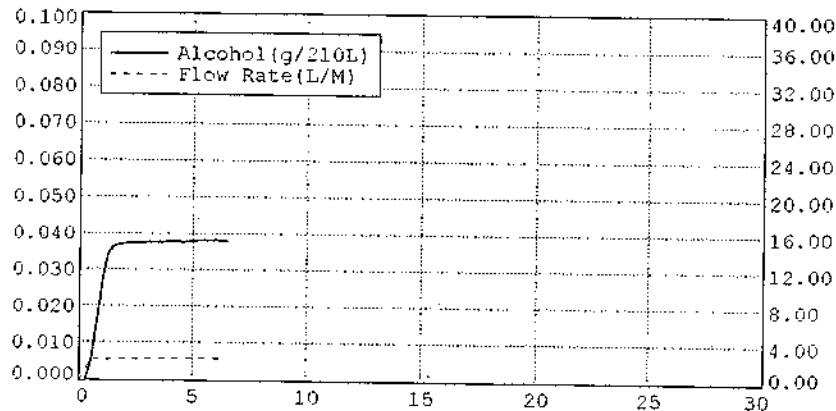
Date: 10/28/2015  
 Time: 12:23:00

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.05: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 917 psi

BLANK TEST	0.000	12:24
INTERNAL STANDARD	VERIFIED	12:24
EXTERNAL STANDARD	0.039	12:24
BLANK TEST	0.000	12:25
EXTERNAL STANDARD	0.039	12:25
BLANK TEST	0.000	12:26
EXTERNAL STANDARD	0.038	12:26
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.039	12:27
BLANK TEST	0.000	12:28
EXTERNAL STANDARD	0.039	12:28
BLANK TEST	0.000	12:29

Average = 0.0388  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

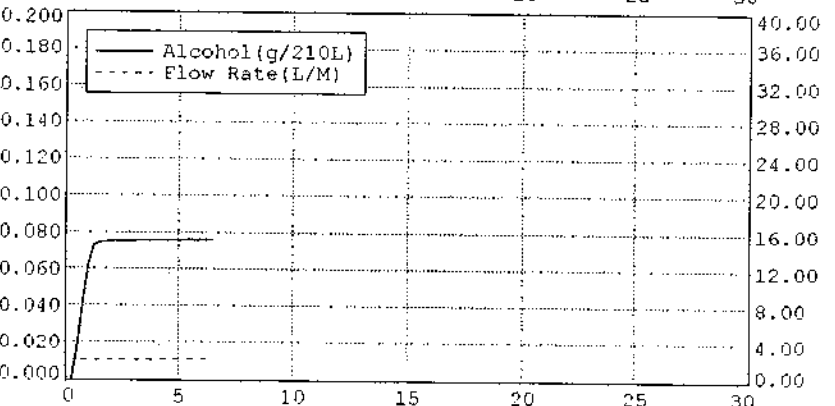
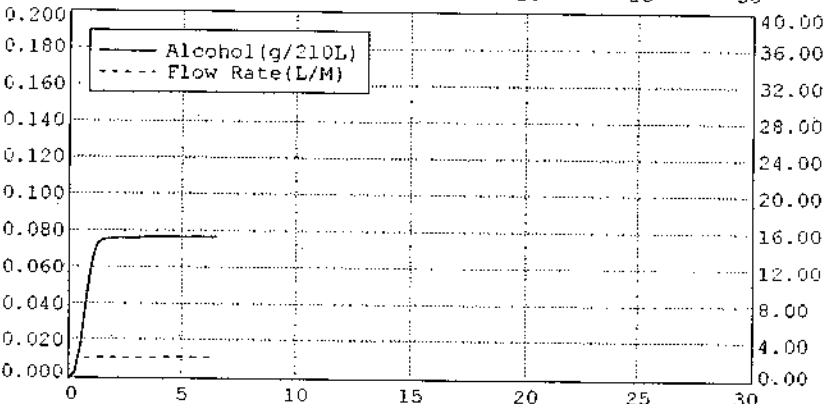
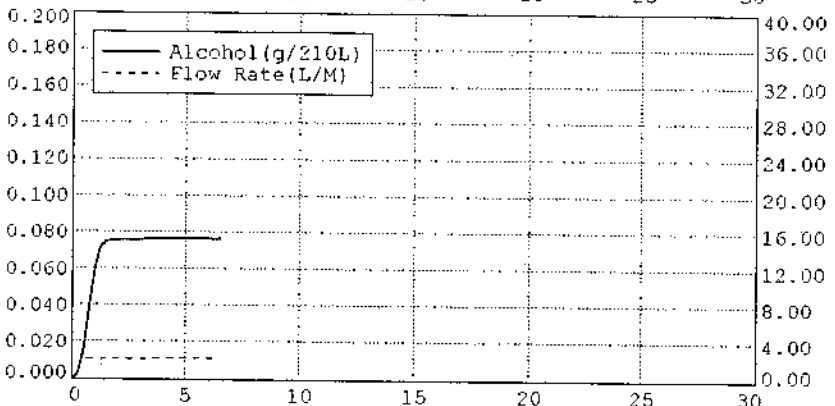
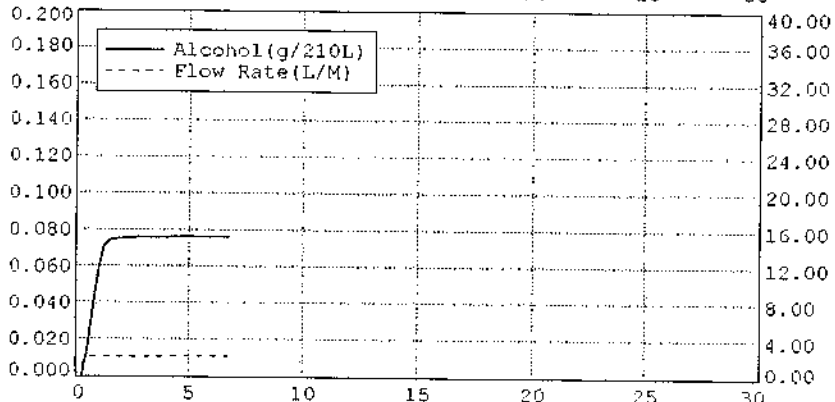
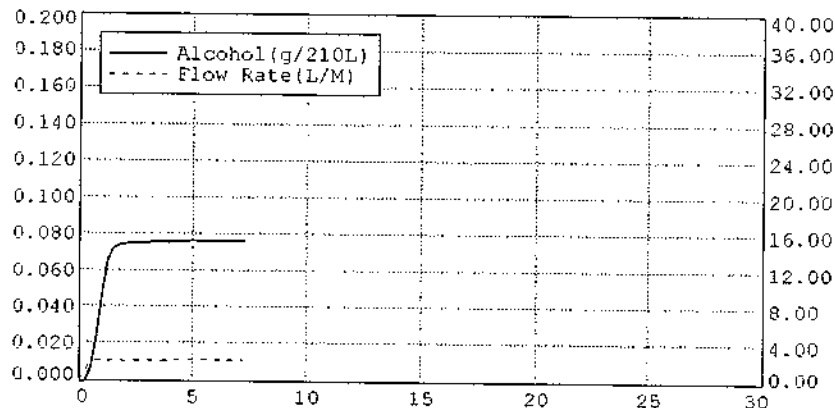
Date: 10/28/2015  
 Time: 12:32:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.04: 0.078  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 640 psi

BLANK TEST	0.000	12:33
INTERNAL STANDARD	VERIFIED	12:34
EXTERNAL STANDARD	0.077	12:34
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.077	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.078	12:36
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.077	12:37
BLANK TEST	0.000	12:38
EXTERNAL STANDARD	0.077	12:38
BLANK TEST	0.000	12:39

Average = 0.0772  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

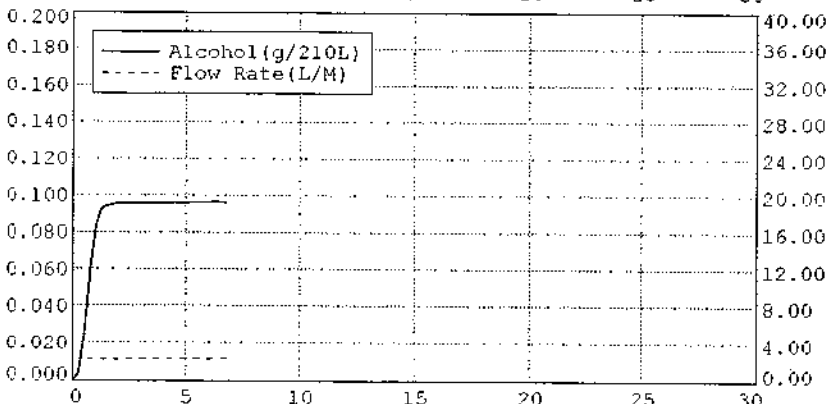
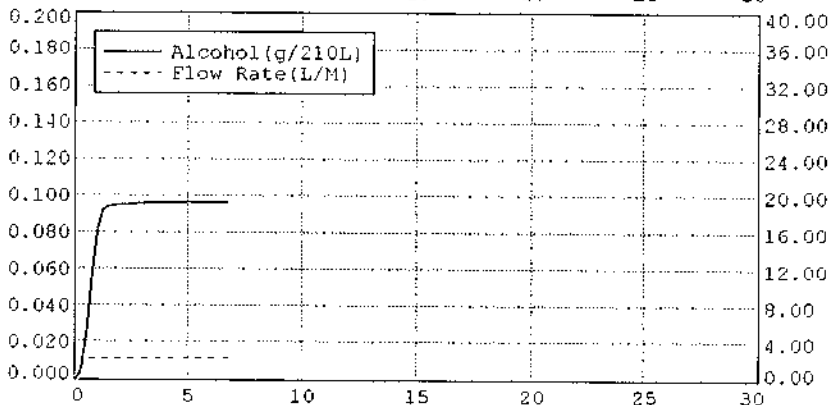
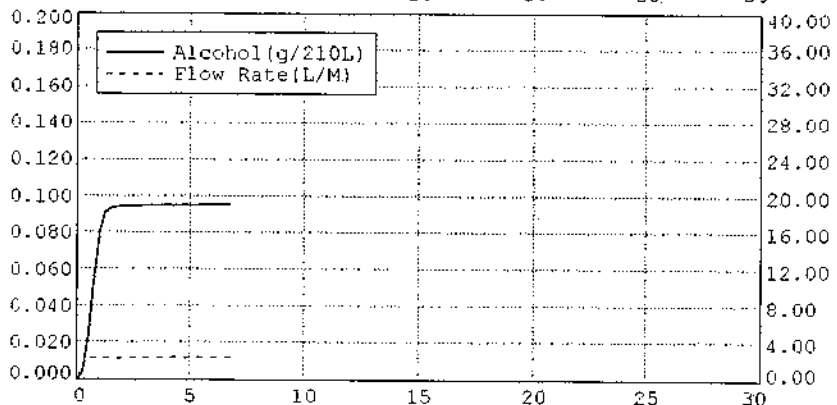
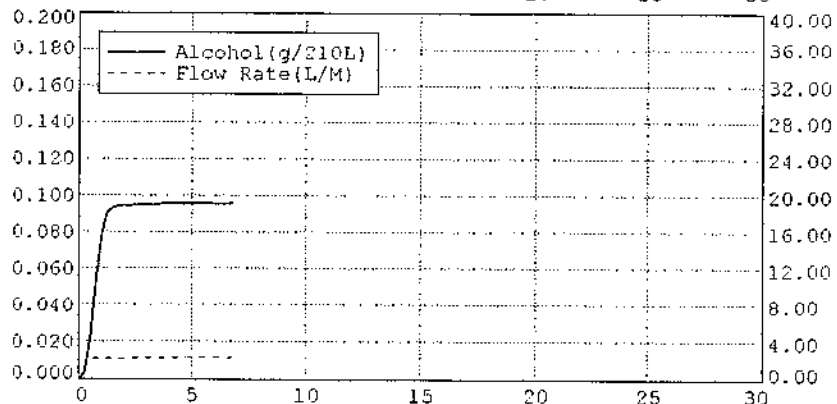
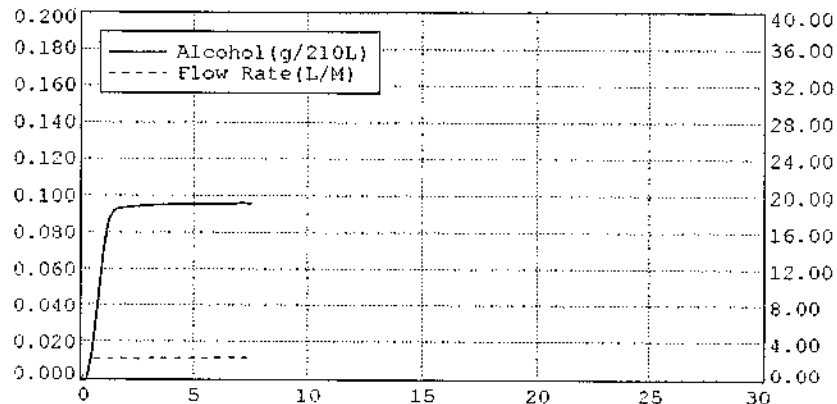
Date: 10/28/2015  
 Time: 12:42:00

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.03: 0.097  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 885 psi

BLANK TEST	0.000	12:43
INTERNAL STANDARD	VERIFIED	12:43
EXTERNAL STANDARD	0.097	12:43
BLANK TEST	0.000	12:44
EXTERNAL STANDARD	0.096	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.096	12:45
BLANK TEST	0.000	12:46
EXTERNAL STANDARD	0.097	12:47
BLANK TEST	0.000	12:47
EXTERNAL STANDARD	0.097	12:48
BLANK TEST	0.000	12:49

Average = 0.0966  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

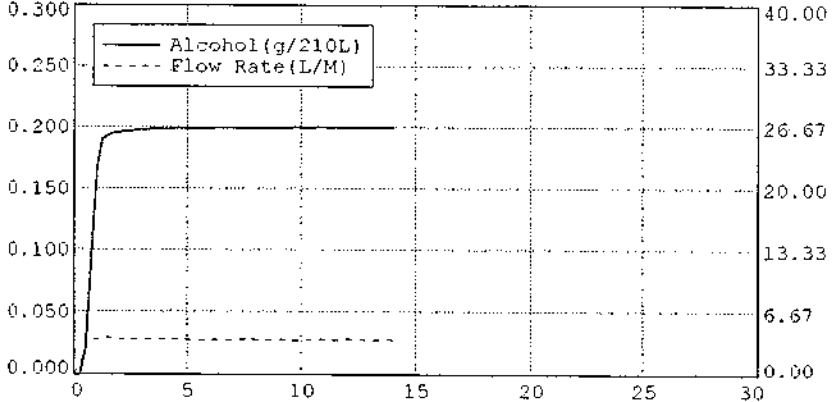
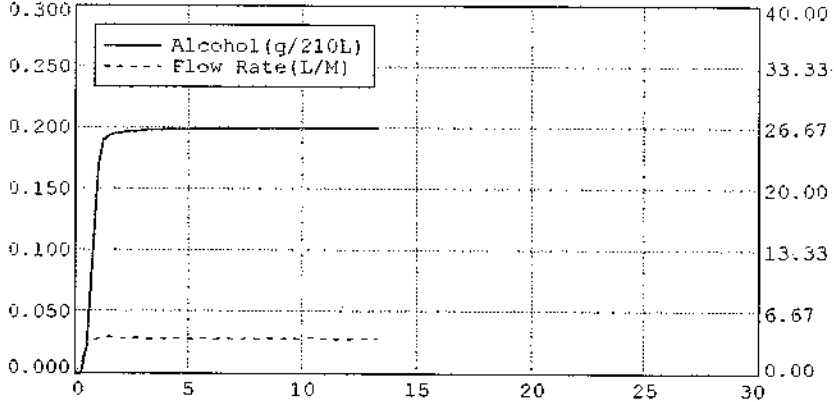
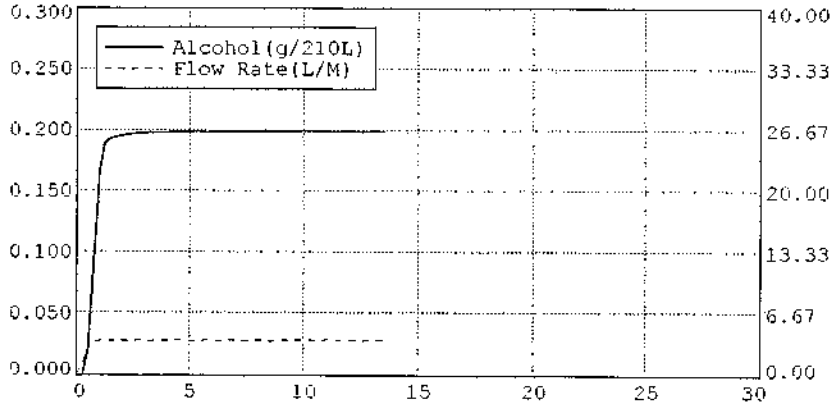
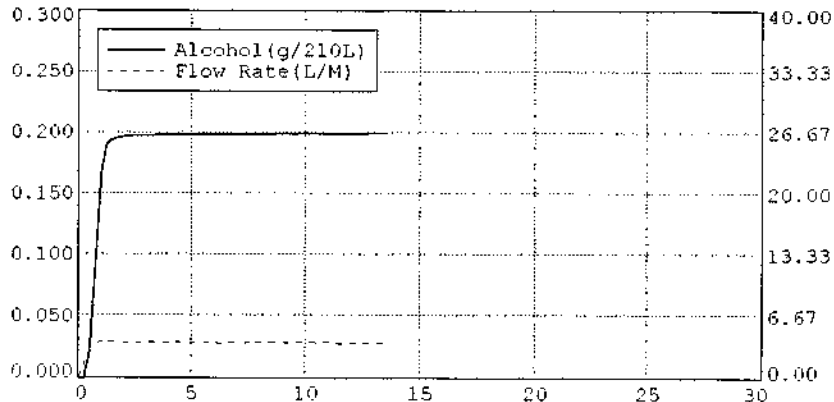
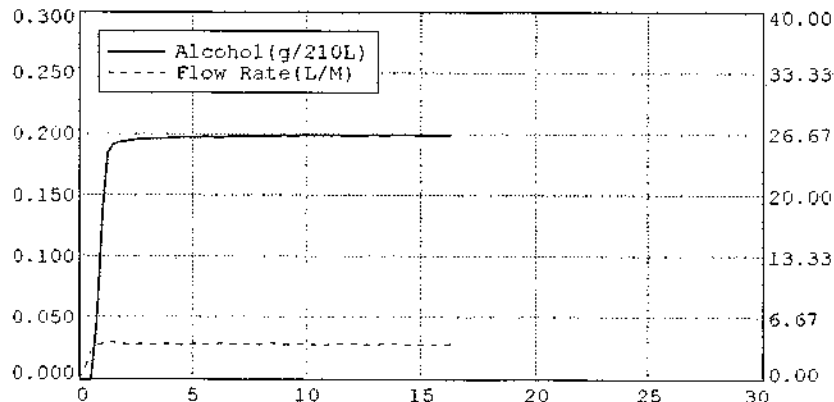
Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

Date: 10/28/2015  
 Time: 12:49:51

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

BLANK TEST	0.000	12:51
INTERNAL STANDARD	VERIFIED	12:51
EXTERNAL STANDARD	0.200	12:51
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.200	12:53
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.200	12:54
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.200	12:55
BLANK TEST	0.000	12:56
EXTERNAL STANDARD	0.200	12:56
BLANK TEST	0.000	12:57

Average = 0.2000  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

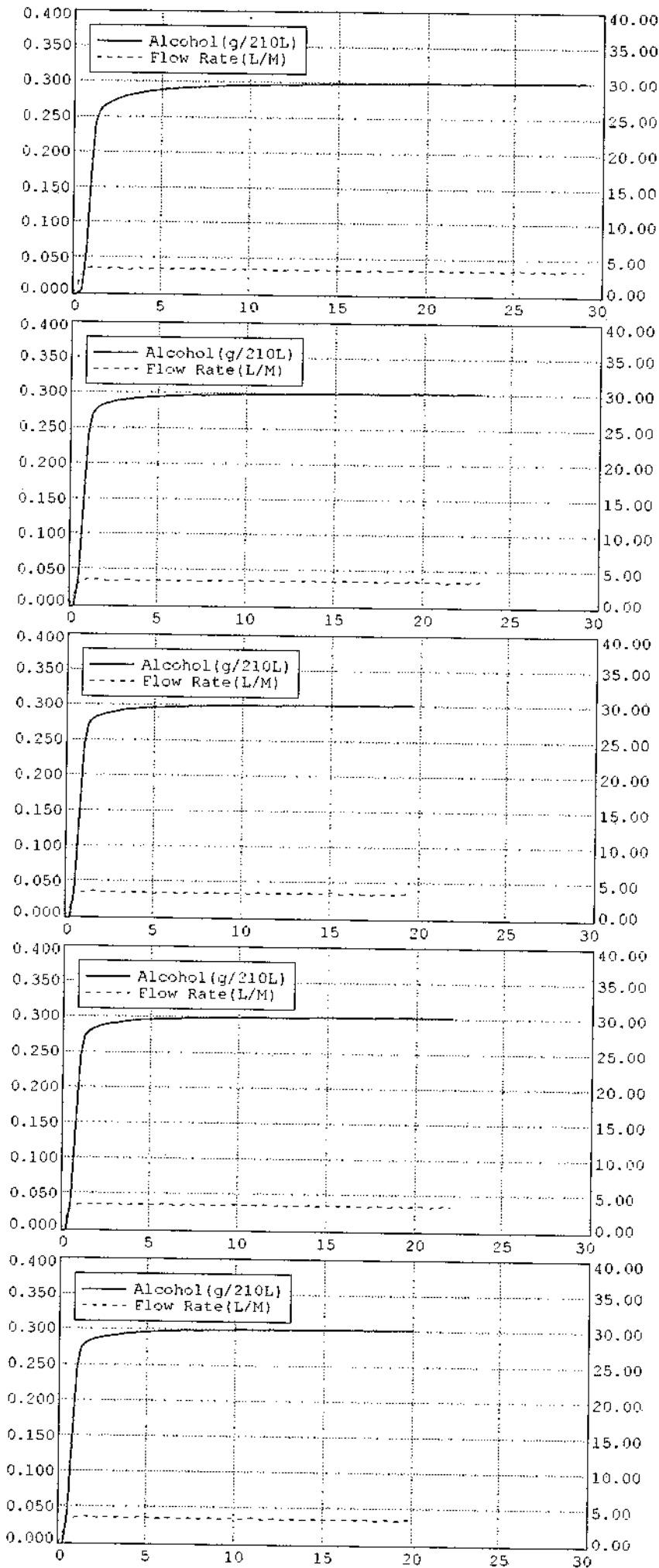
Alaska Department of Public Safety  
 DATAMASTER dmt: 100365

Date: 10/28/2015  
 Time: 13:00:06

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.300  
 LOT #: 14270  
 EXPIRATION: 12/02/2016

BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:01
EXTERNAL STANDARD	0.301	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.301	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.301	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.302	13:06
BLANK TEST	0.000	13:07
EXTERNAL STANDARD	0.302	13:07
BLANK TEST	0.000	13:08

Average = 0.3014  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100365

Date: 10/28/2015  
Time: 13:13:45

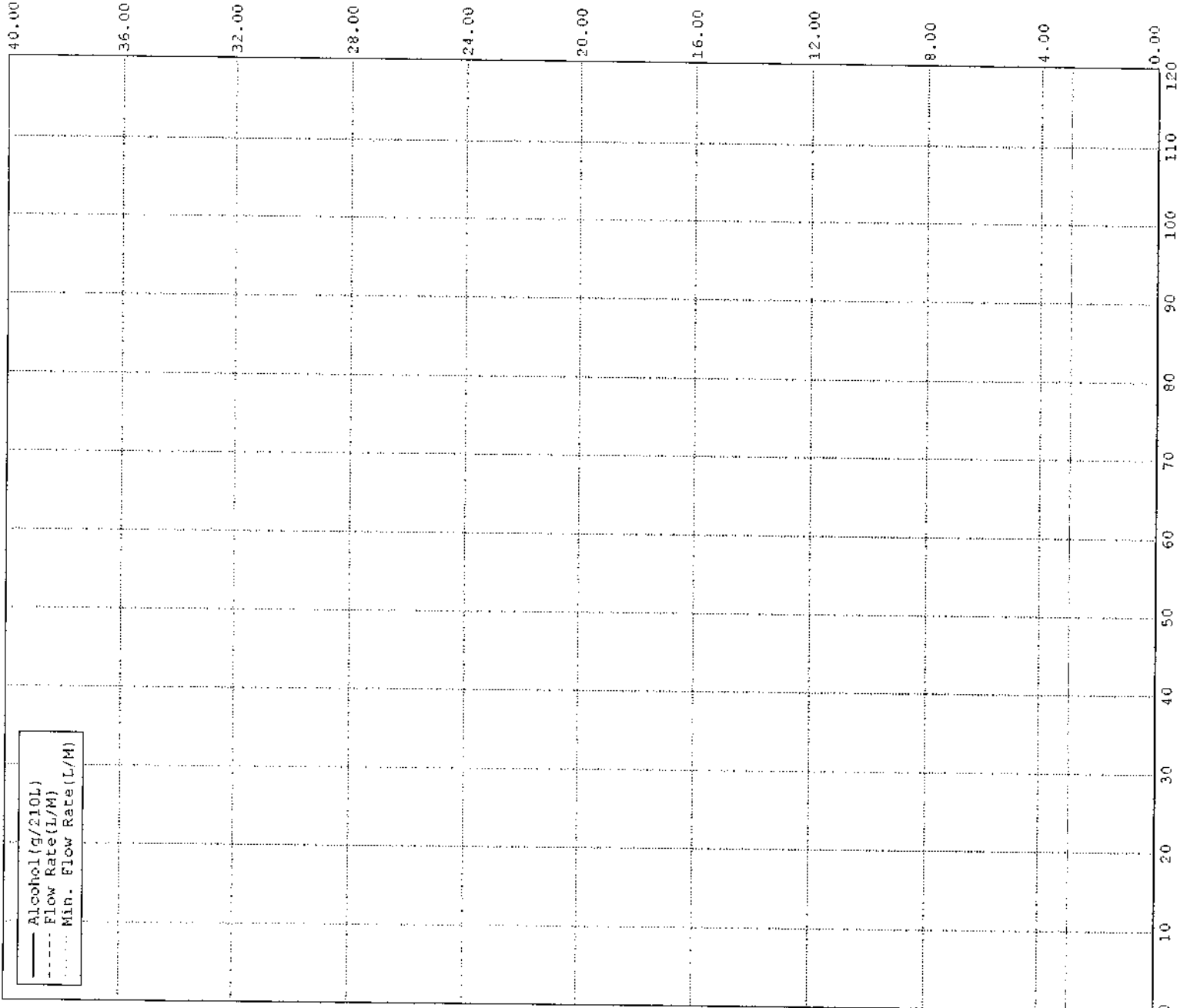
SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.04: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 13:33  
BLANK TEST 0.000 13:33  
INTERNAL STANDARD VERIFIED 13:33  
EXTERNAL STANDARD 0.077 13:34  
BLANK TEST 0.000 13:35  
SUBJECT SAMPLE INCOMPLETE 13:37



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 11:36:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

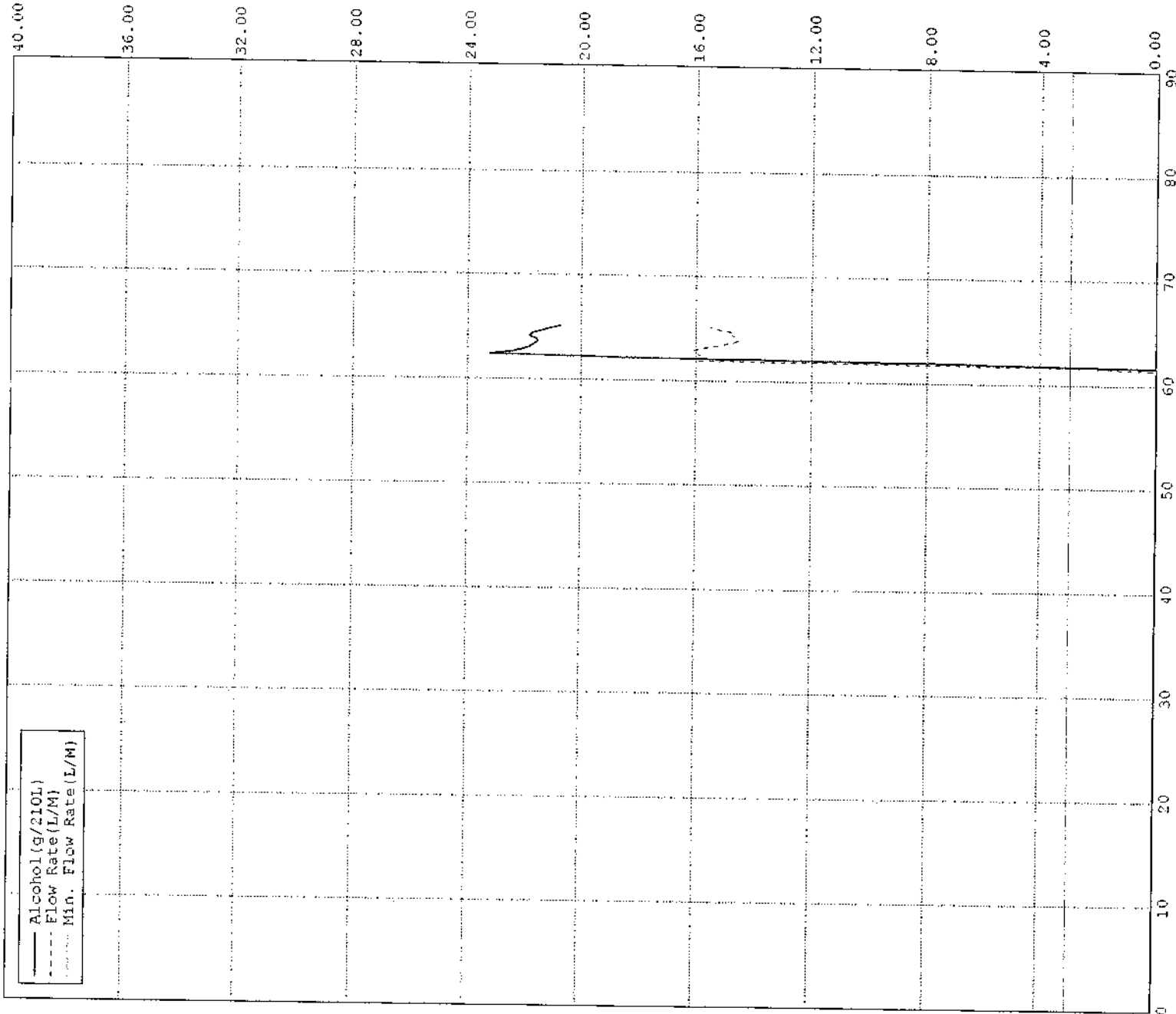
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.76: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 11:38  
BLANK TEST 0.000 11:38  
INTERNAL STANDARD VERIFIED 11:38  
EXTERNAL STANDARD 0.078 11:38  
BLANK TEST 0.000 11:39  
SUBJECT SAMPLE INVALID 11:40

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 11:50:16

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

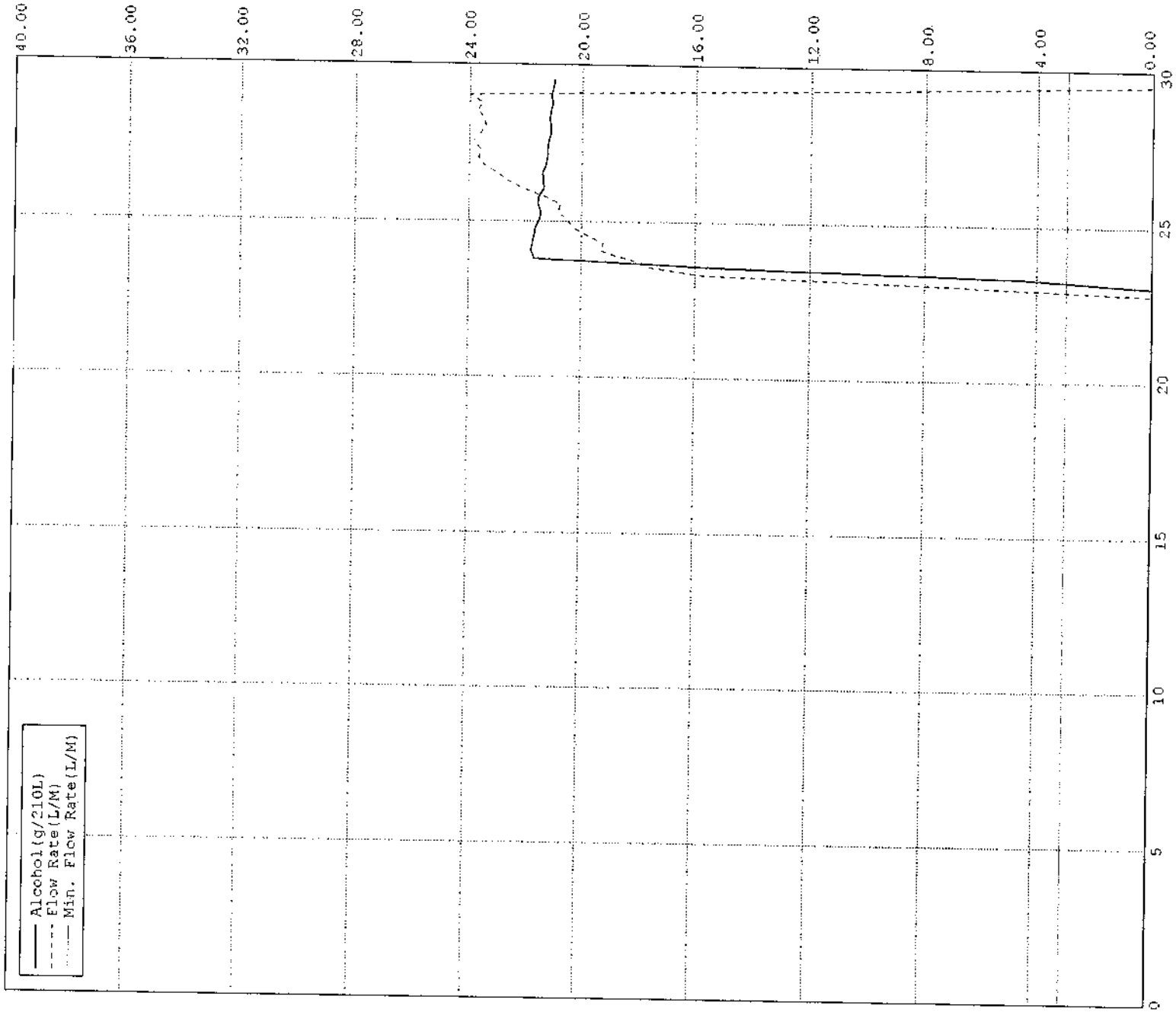
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.76: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:51
BLANK TEST	0.000	11:51
INTERNAL STANDARD	VERIFIED	11:51
$X_q = 0.101$ (0.35%)		
EXTERNAL STANDARD	0.079	11:52
$X\{1\} = 0.0787$ (-0.0006)	(0.0029)	
BLANK TEST	0.000	11:53
SUBJECT SAMPLE	XXX	11:53
$X\{1\} = 0.1056$ (-0.0188)	(0.0017)	

Interference Detected

*COB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 11:56:15

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

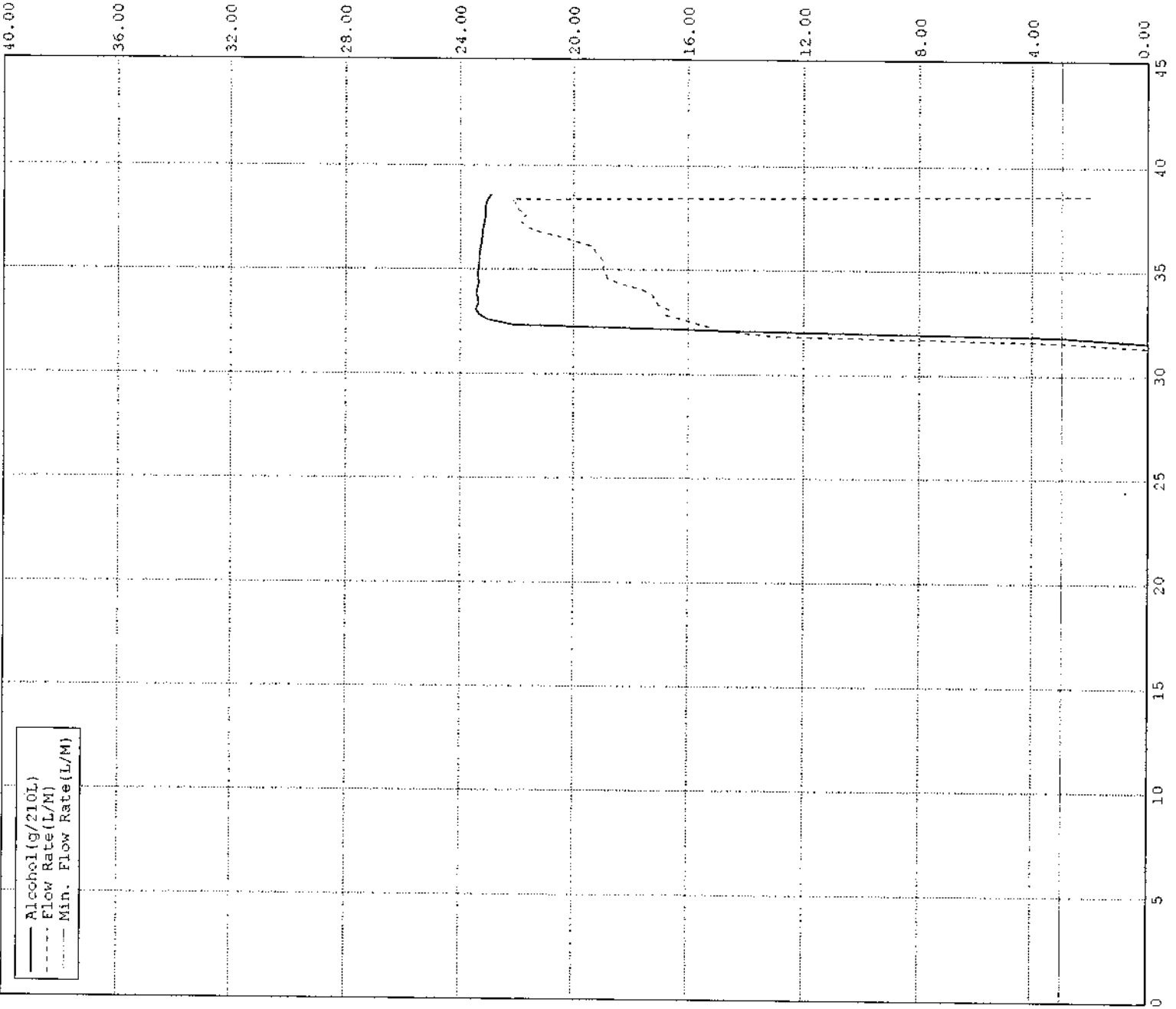
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:57
BLANK TEST	0.000	11:57
INTERNAL STANDARD	VERIFIED	11:57
Xq = 0.101 (0.52%)		
EXTERNAL STANDARD	0.079	11:58
X[1] = 0.0791 (-0.0006)	(0.0026)	
BLANK TEST	0.000	11:59
SUBJECT SAMPLE	XXX	11:59
X[1] = 0.1155 (-0.0223)	(0.0029)	

Interference Detected

*CS*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 12:02:23

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEG

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

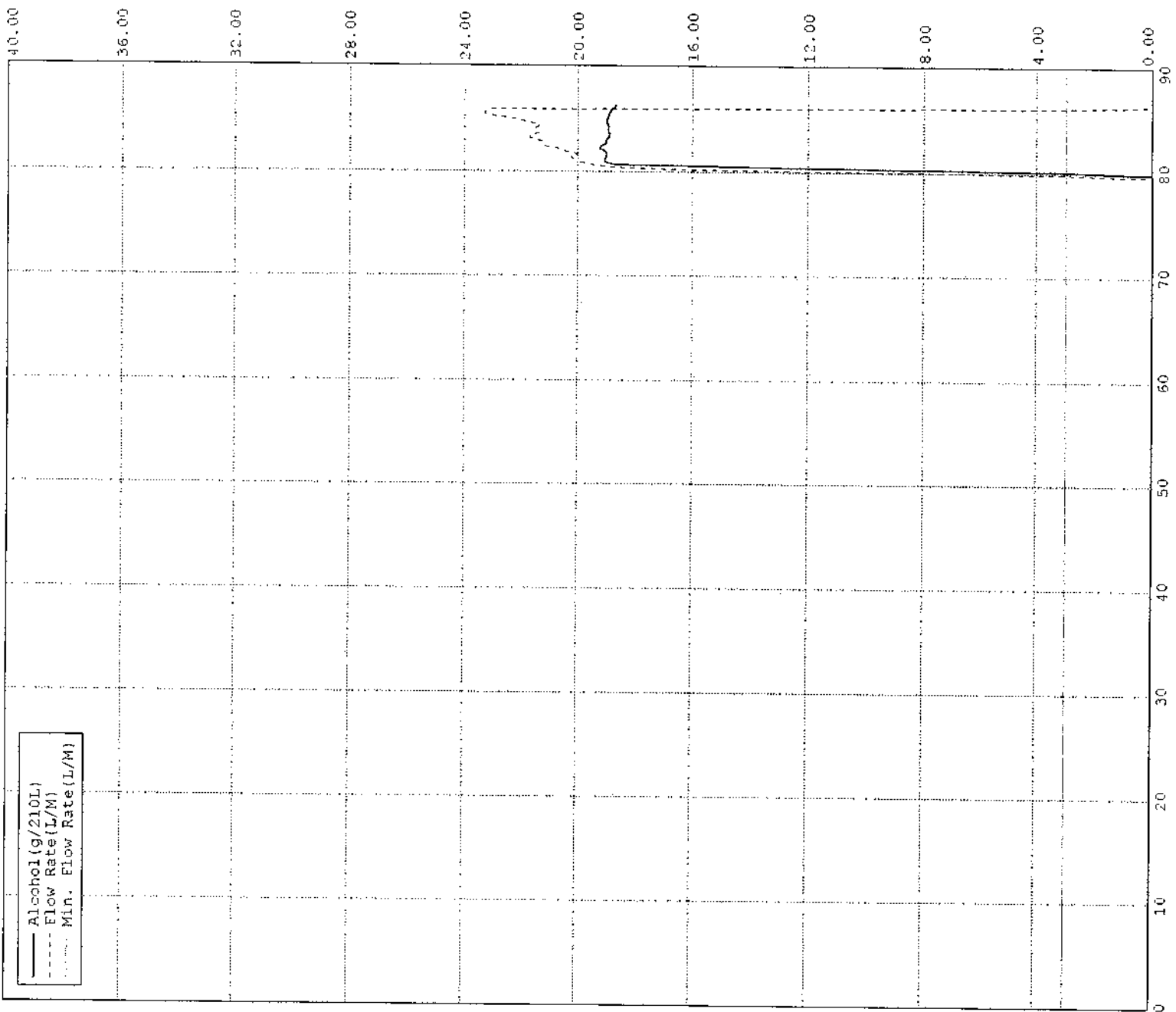
NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:03
BLANK TEST	0.000	12:03
INTERNAL STANDARD	VERIFIED	12:03
Xq = 0.101 (0.268)		
EXTERNAL STANDARD	0.079	12:03
X[1] = 0.0787 (-0.0004) (0.0033)		
BLANK TEST	0.000	12:04
SUBJECT SAMPLE (Vol=2.13L)	0.094	12:06
X[1] = 0.0944 (-0.0002) (0.0021)		
BLANK TEST	0.000	12:07
EXTERNAL STANDARD	0.079	12:07
X[1] = 0.0793 (0.0003) (0.0028)		
BLANK TEST	0.000	12:08

*Filter 2 avg = -0.0003*

*Filter 3 avg = 0.0029*

*CKB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 12:11:20

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

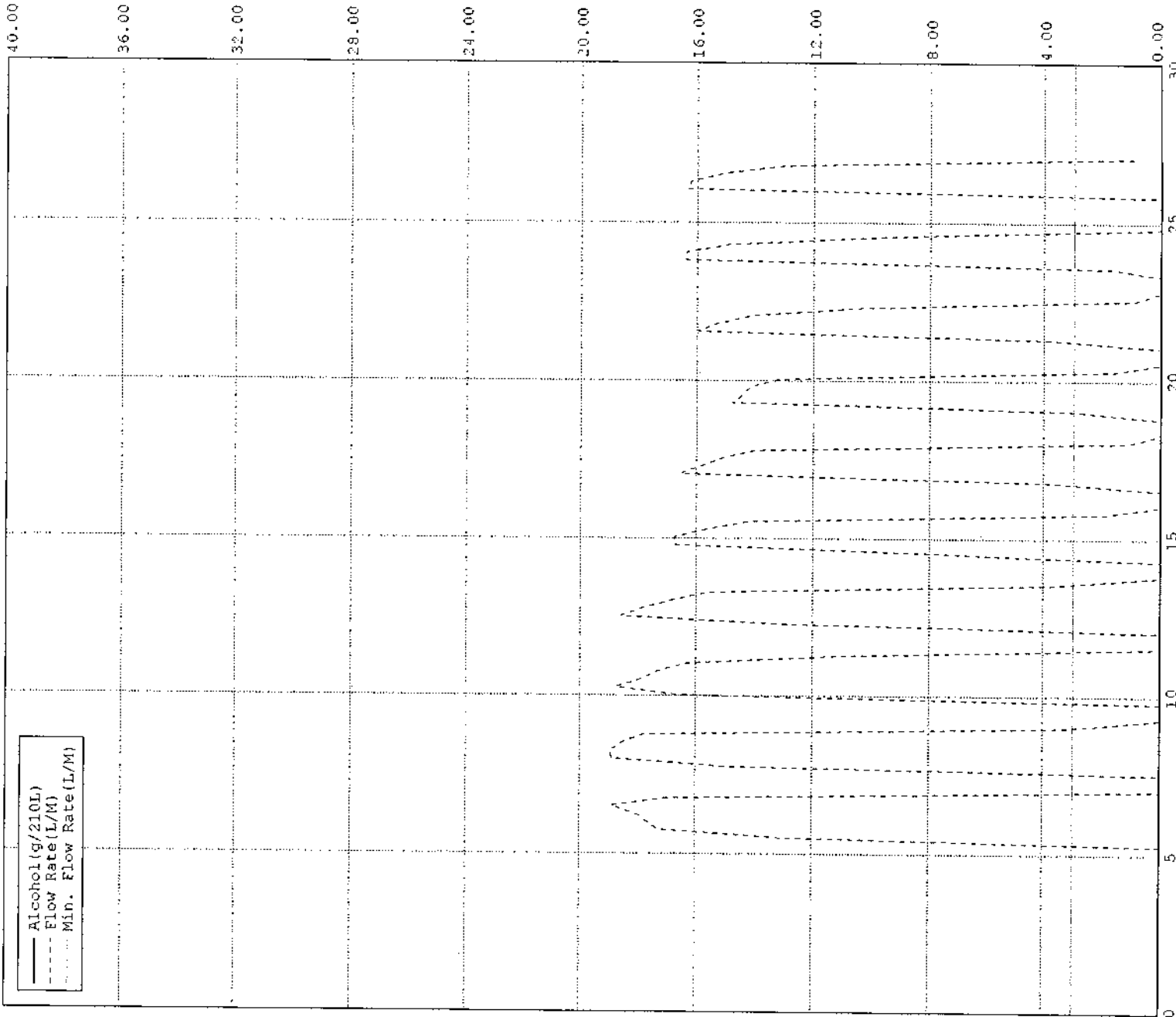
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.75: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK PASSED 12:12  
BLANK TEST 0.000 12:12  
INTERNAL STANDARD VERIFIED 12:13  
EXTERNAL STANDARD 0.079 12:13  
BLANK TEST 0.000 12:14  
SUBJECT SAMPLE XXX 12:14

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 12:17:24

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

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

DEPT/AGENCY:  
AAA1

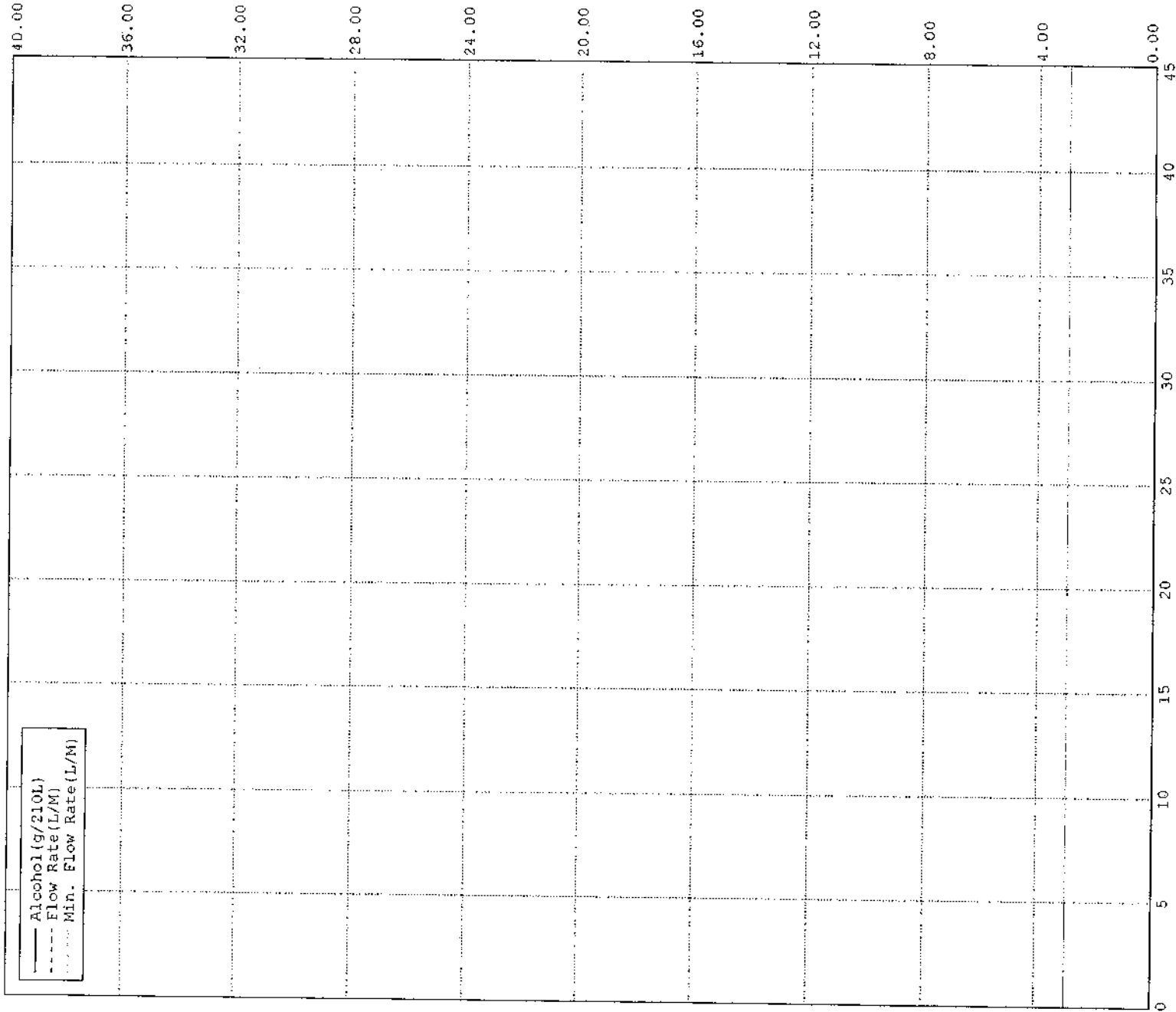
CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.74: 0.080  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
PASSED 12:25  
BLANK TEST 0.000 12:25  
INTERNAL STANDARD VERIFIED 12:25  
EXTERNAL STANDARD 0.079 12:25  
BLANK TEST 0.000 12:26

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100365

Date: 11/02/2015  
Time: 13:44:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: NONDRINKING

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 15-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.72: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:45
BLANK TEST	0.000	13:45
INTERNAL STANDARD	VERIFIED	13:45
EXTERNAL STANDARD	0.078	13:46
BLANK TEST	0.000	13:46
SUBJECT SAMPLE (Vol=2.19L)	0.000	13:47
BLANK TEST	0.000	13:48
EXTERNAL STANDARD	0.079	13:48
BLANK TEST	0.000	13:49

