

# 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 100344 Analyst Colleen O'Bryen Start Date 5/4/16

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 Aargas Lot AG608504 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 DR0298 Date Calibrated 8/5/15
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
  - 1. Simulator S/N SD1198 Date Calibrated 8/5/15

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 SD1199 Date Calibrated 8/5/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1177 Date Calibrated 8/5/15
- iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
  - 1. Simulator S/N DR4100 Date Calibrated 8/5/15

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 5/5/16

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100344  
-----

Date: 05/04/2016  
Time: 10:37:57

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 = 48.1°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.20 V PASSED  
(1.29 V - 3.01 V)  
Cooler Voltage = 1.97 V PASSED  
(1.04 V - 2.44 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 538 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.6 in

PUMP INFO

Flow Rate = 4.878 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 = 0.106 1.60% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100344  
-----

Date: 05/04/2016

Time: 10:44 AM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 48.0°C

Current Barometer 29.6 in

Volume (Ltr) 1.51

Settings

Lamp: 2.20 V

Bias: 80 V

Cooler: 1.97 V

Chopper: 537 Hz

Voltages (V)

Flow: 1.09 V

Detector: -0.057 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100344  
-----

Date: 03/22/2011  
Time: 11:59:47

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

LOT #: GUTH100  
BOTTLE #: 9380  
EXPIRATION: 12/17/2011

Ca = 0.1000  
CAL = 0.994117    0.800 <= CAL < 1.200  
b1 = 0.0004    0.0000 <= b1 < 0.0040  
b2 = 0.0039    0.0010 <= b2 < 0.0100  
b3 = 0.0002    0.0000 <= b3 < 0.0040  
Xq = 0.1044    0.0500 <= Xq < 0.2000  
a21 = 1.098703    1.050 <= a21 < 1.300  
a31 = 0.581935    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100344

Date: 05/04/2016  
Time: 12:39:11

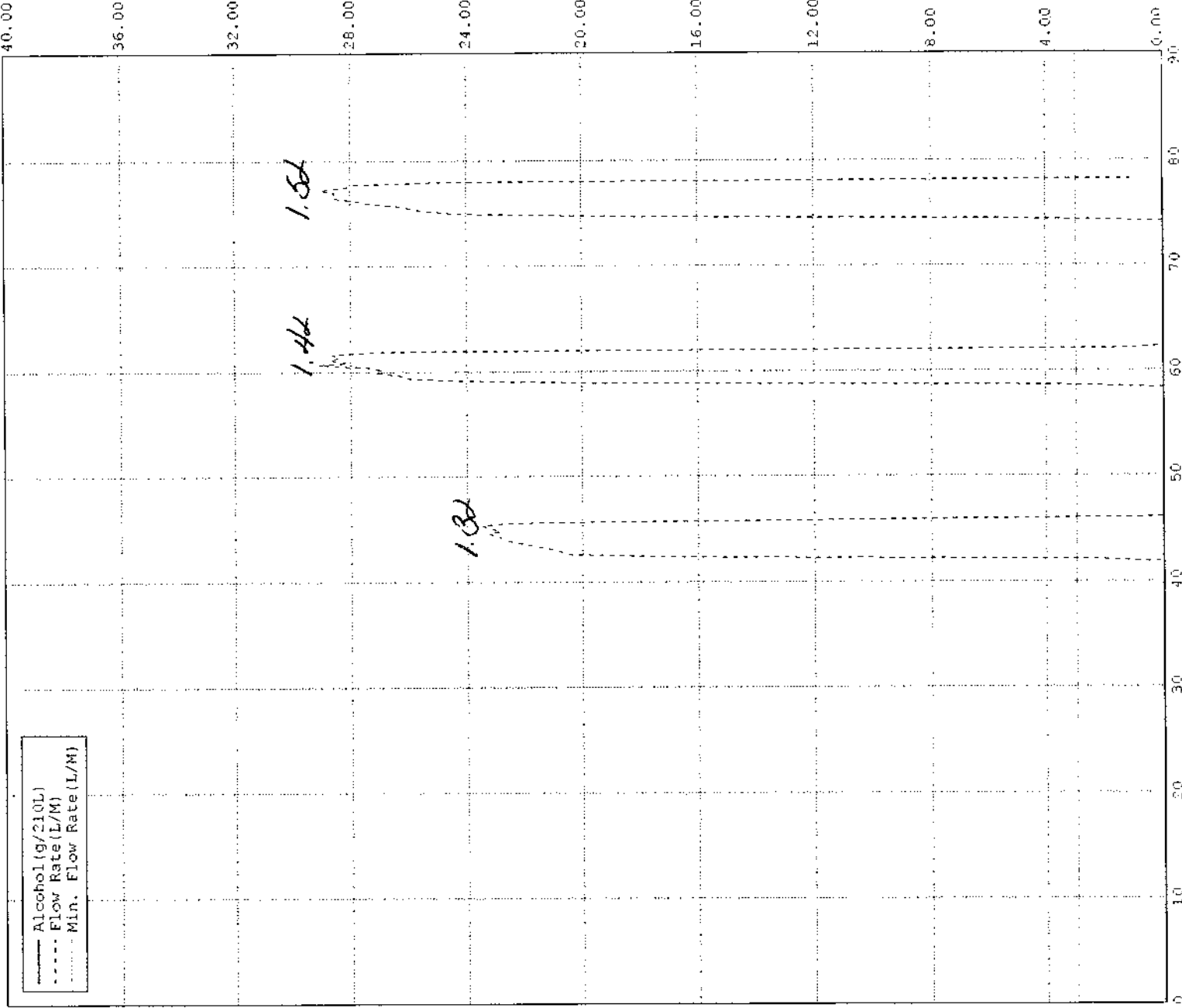
SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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 29.64: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	12:40
BLANK TEST	0.000	12:40
INTERNAL STANDARD	VERIFIED	12:40
EXTERNAL STANDARD	0.079	12:40
BLANK TEST	0.000	12:41
SUBJECT SAMPLE (Vol=1.57L)	0.000	12:43
BLANK TEST	0.000	12:44
EXTERNAL STANDARD	0.080	12:44
BLANK TEST	0.000	12:45



LINEARITY CHECK

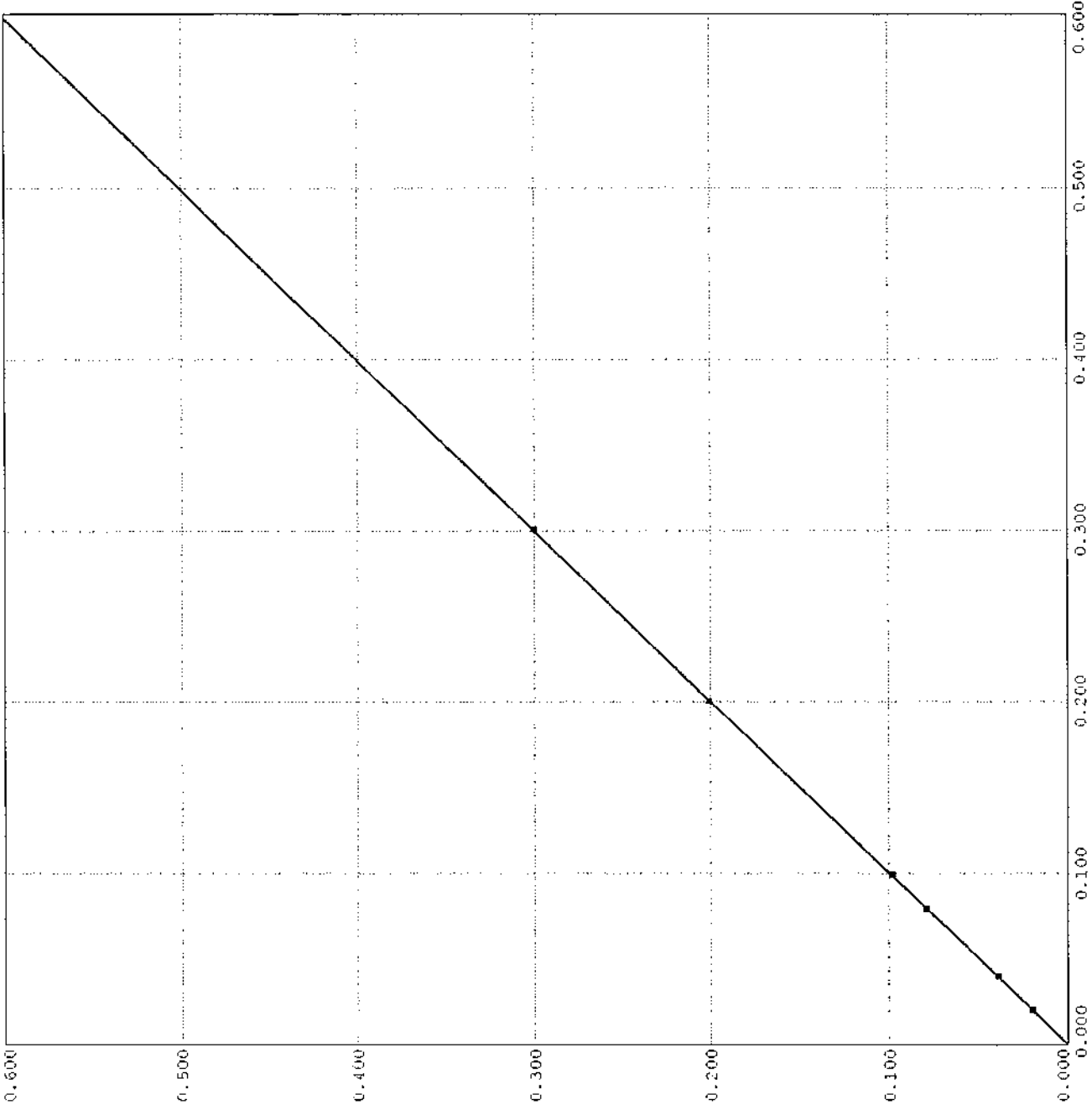
Alaska Department of Public Safety  
DATAMASTER dmt: 100344

Date: 05/04/2016  
Time: 13:14:36

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

TARGET	AVERAGE	STD. DEV.
0.020	0.0204	0.0005
0.040	0.0400	0.0000
0.079	0.0800	0.0000
0.099	0.0990	0.0000
0.200	0.2018	0.0008
0.300	0.3012	0.0004

SLOPE = 1.004641  
R<sup>2</sup> = 0.999976



*CS*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100344

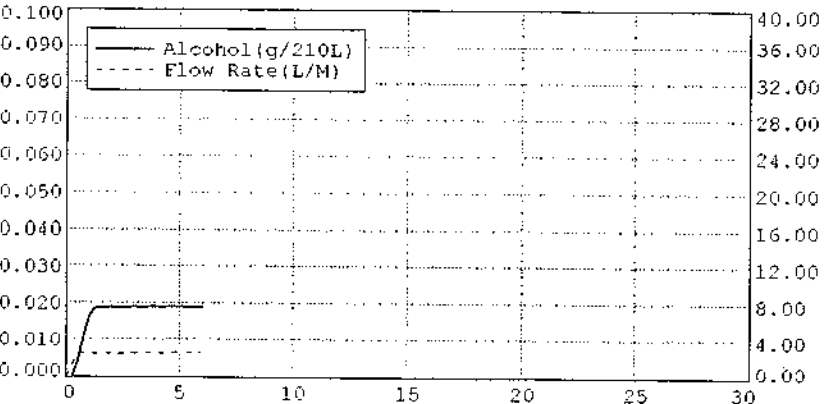
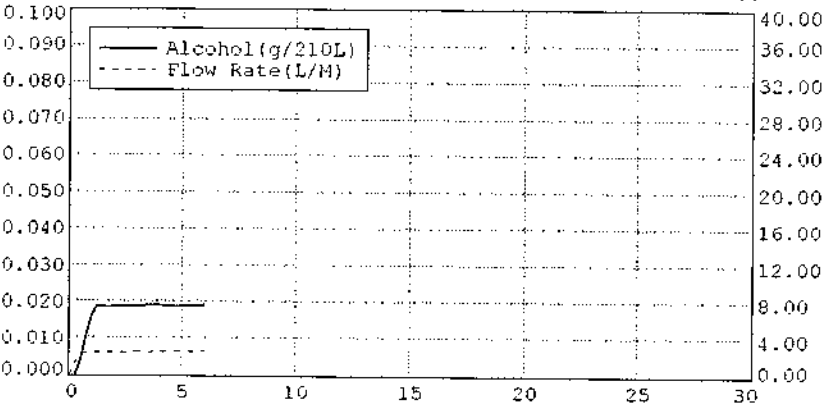
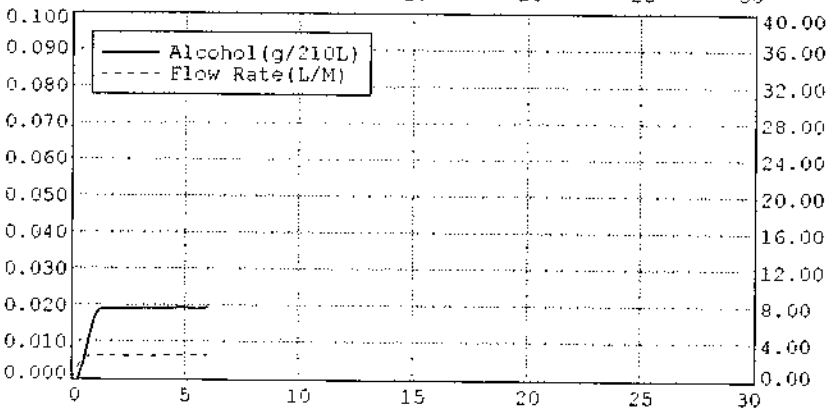
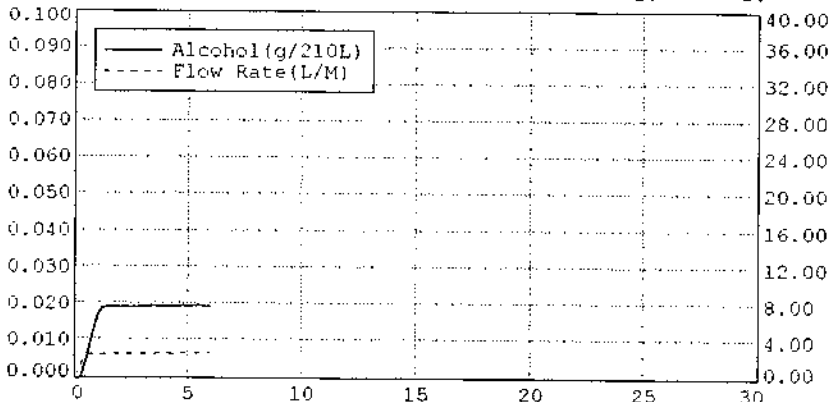
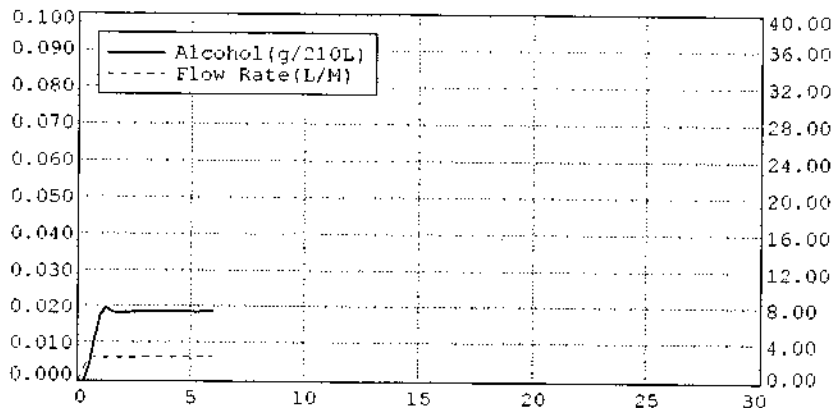
Date: 05/04/2016  
 Time: 13:14:37

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.64: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 864 psi

BLANK TEST	0.000	13:20
INTERNAL STANDARD	VERIFIED	13:20
EXTERNAL STANDARD	0.020	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.021	13:21
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.021	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.020	13:24
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.020	13:25
BLANK TEST	0.000	13:26

Average = 0.0204  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100344

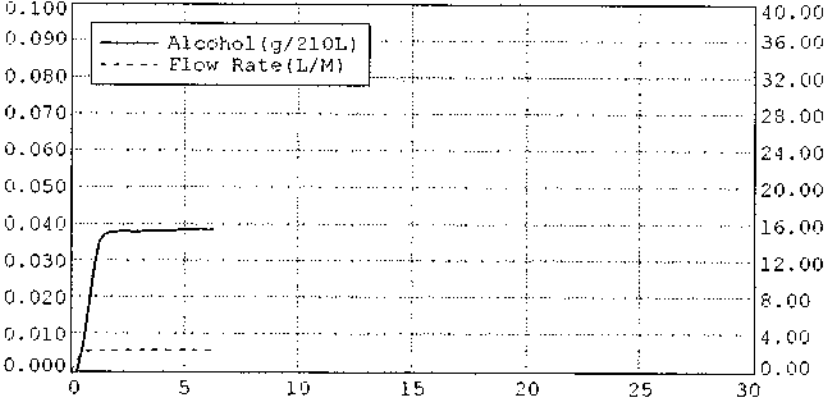
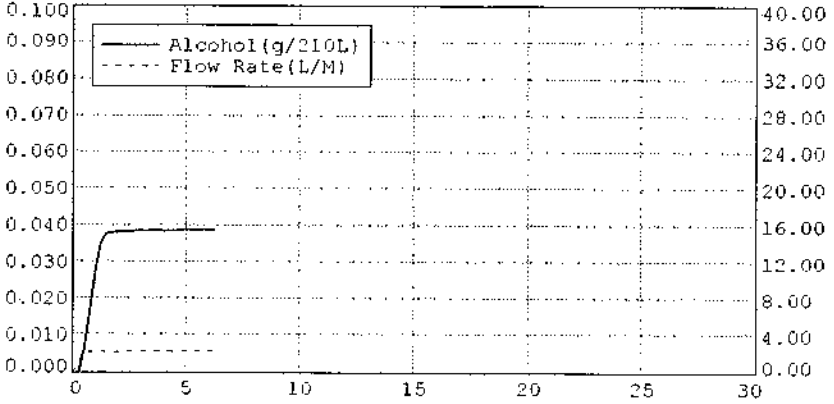
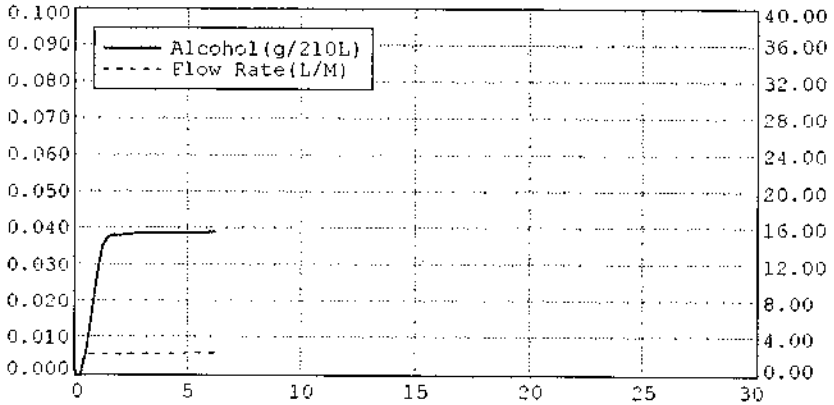
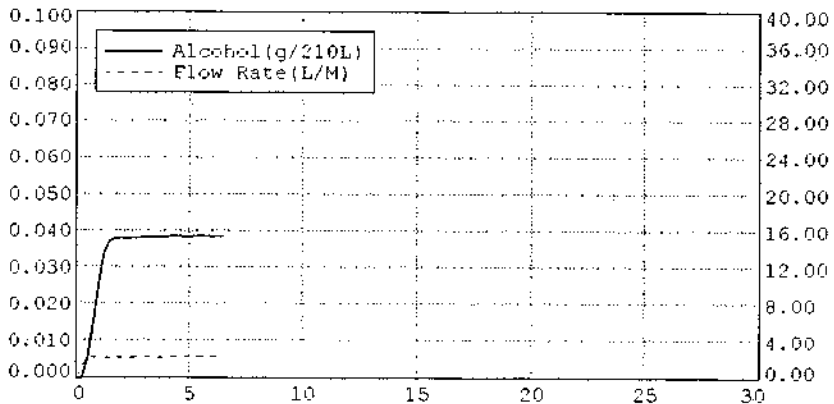
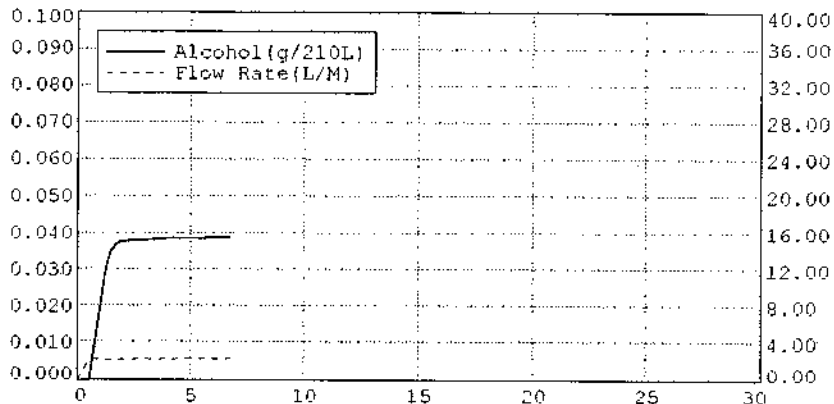
Date: 05/04/2016  
 Time: 13:27:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.63: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 326 psi

BLANK TEST	0.000	13:28
INTERNAL STANDARD	VERIFIED	13:28
EXTERNAL STANDARD	0.040	13:28
BLANK TEST	0.000	13:29
EXTERNAL STANDARD	0.040	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.040	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.040	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.040	13:33
BLANK TEST	0.000	13:33

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100344

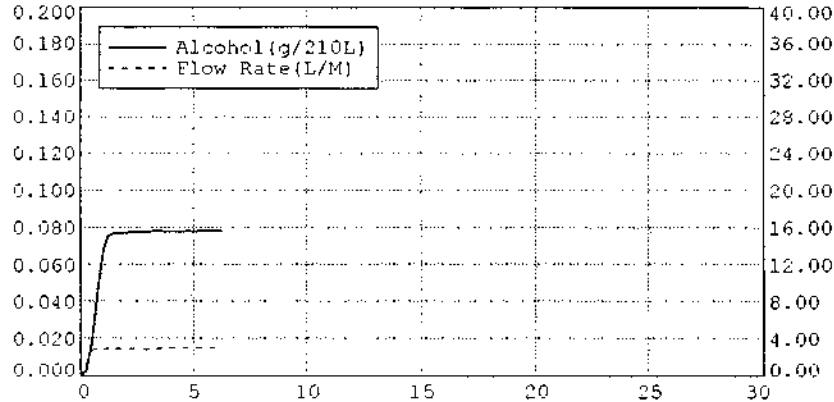
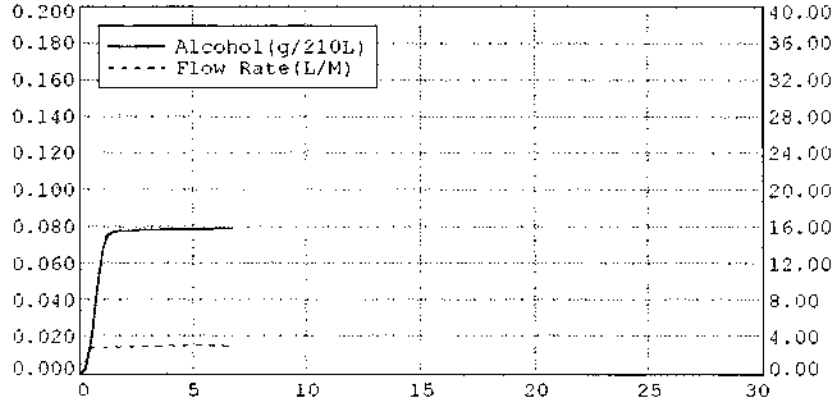
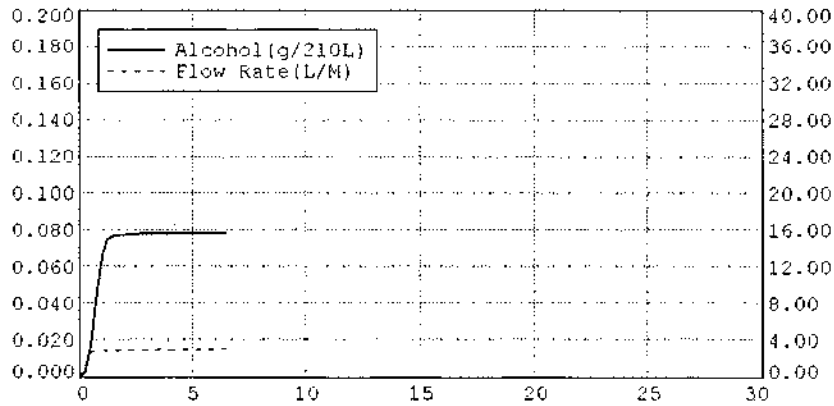
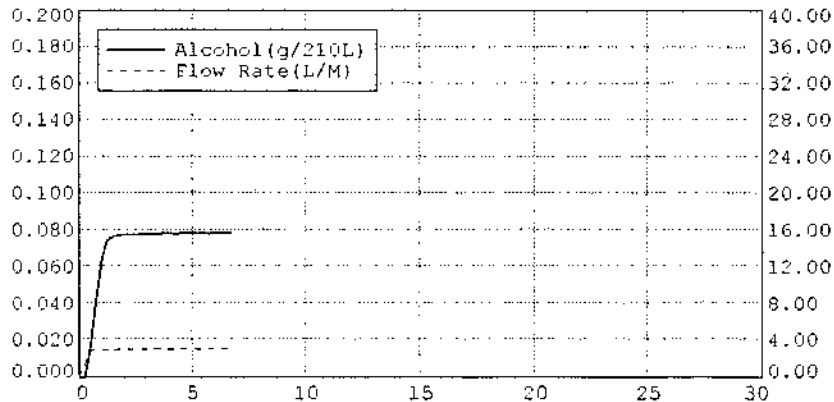
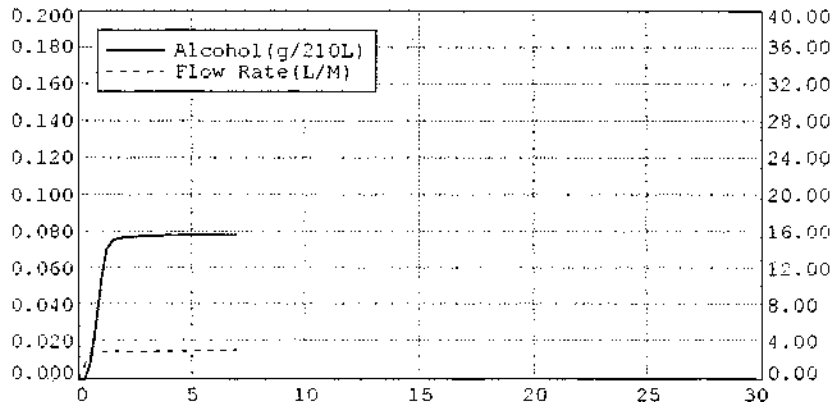
Date: 05/04/2016  
 Time: 13:35:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.63: 0.079  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 1177 psi

BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.080	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.080	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.080	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.080	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.080	13:41
BLANK TEST	0.000	13:42

Average = 0.0800  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100344

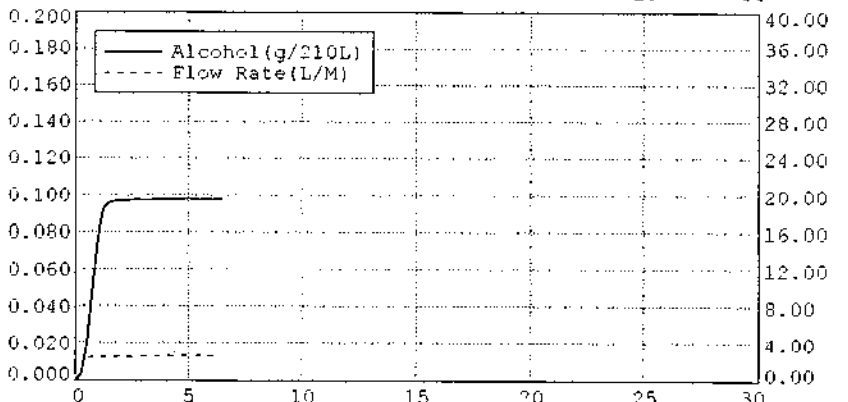
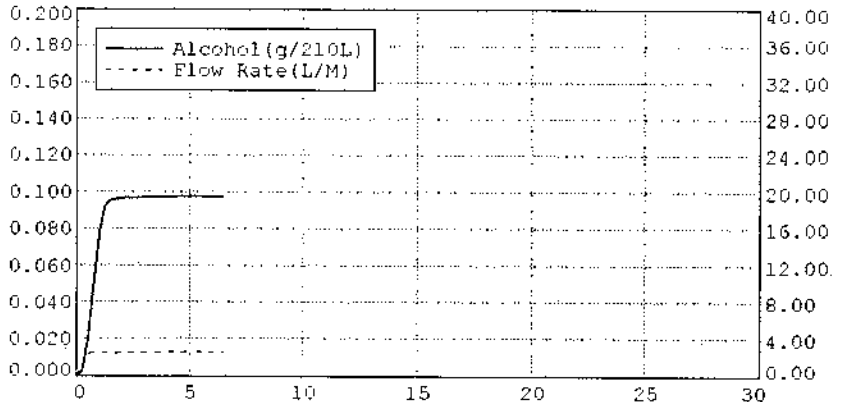
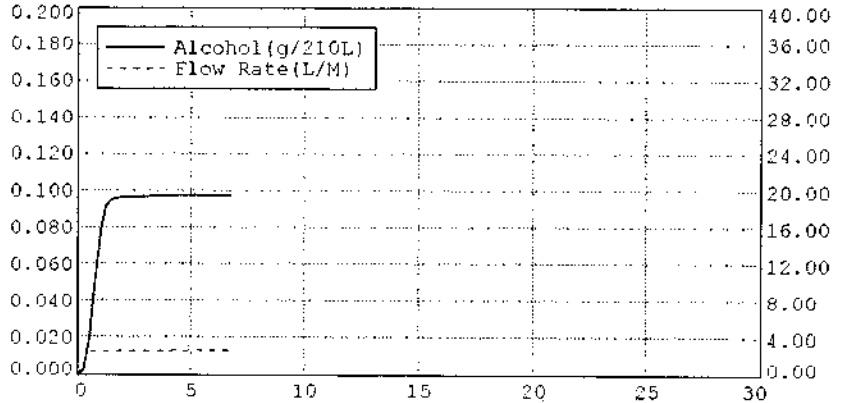
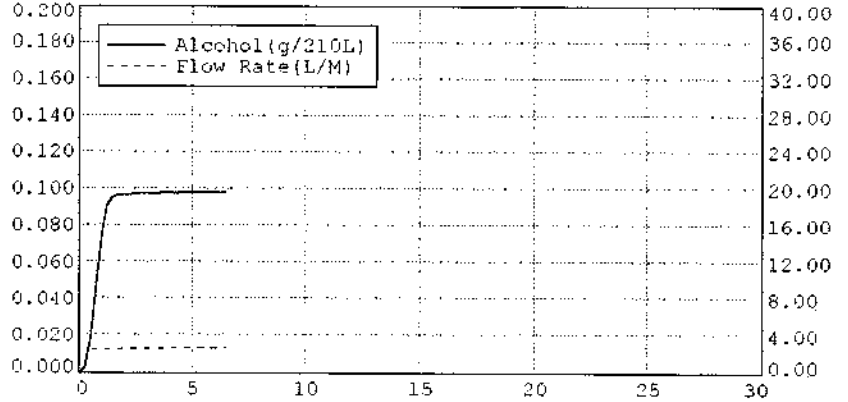
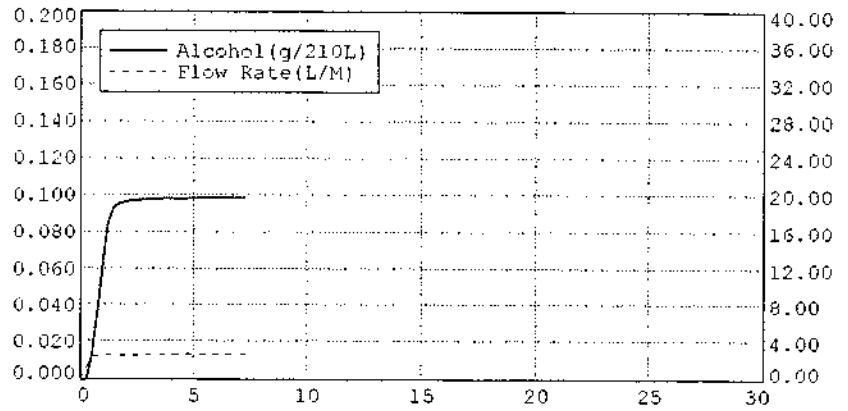
Date: 05/04/2016  
 Time: 13:43:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.63: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 608 psi

BLANK TEST	0.000	13:44
INTERNAL STANDARD	VERIFIED	13:44
EXTERNAL STANDARD	0.099	13:45
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.099	13:46
BLANK TEST	0.000	13:47
EXTERNAL STANDARD	0.099	13:47
BLANK TEST	0.000	13:48
EXTERNAL STANDARD	0.099	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.099	13:49
BLANK TEST	0.000	13:50

Average = 0.0990  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100344

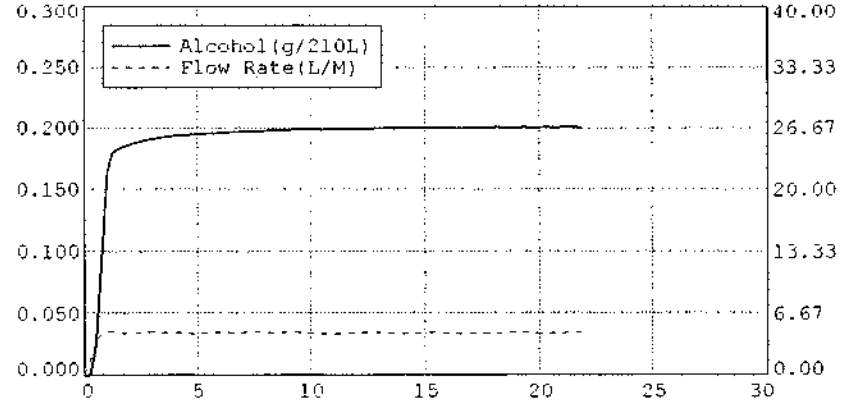
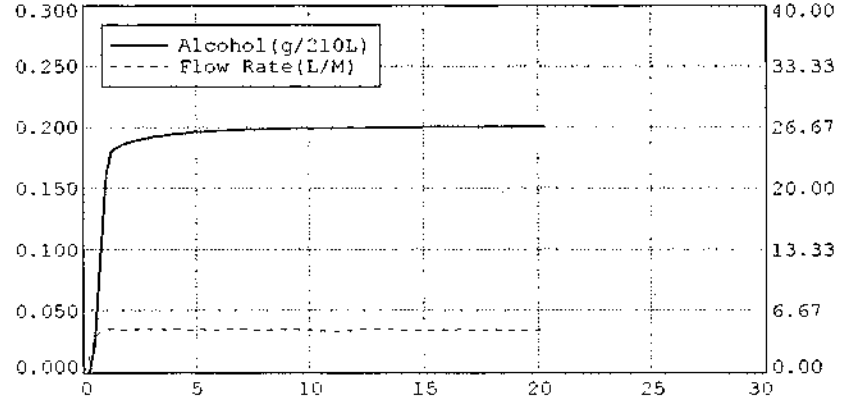
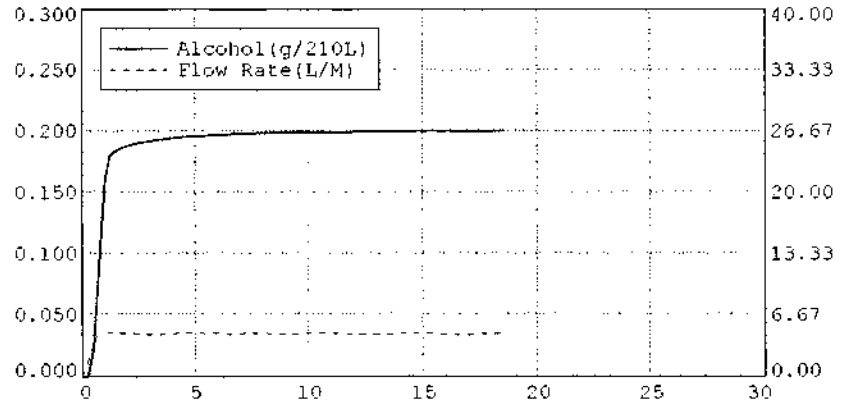
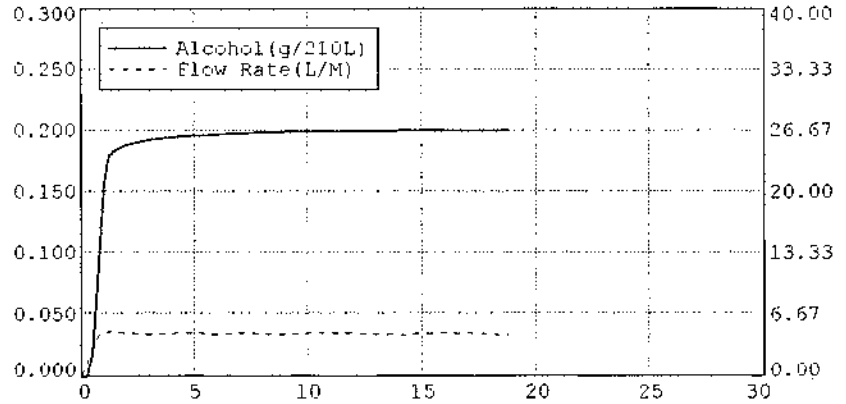
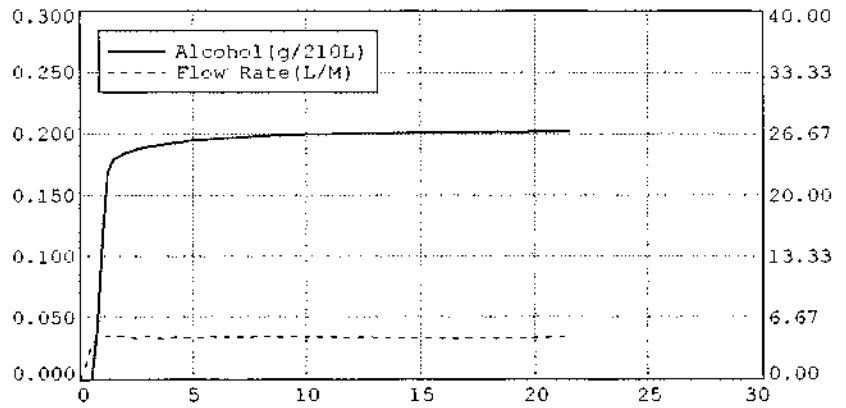
Date: 05/04/2016  
 Time: 13:50:42

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:53
INTERNAL STANDARD	VERIFIED	13:53
EXTERNAL STANDARD	0.203	13:54
BLANK TEST	0.000	13:55
EXTERNAL STANDARD	0.201	13:55
BLANK TEST	0.000	13:56
EXTERNAL STANDARD	0.201	13:56
BLANK TEST	0.000	13:57
EXTERNAL STANDARD	0.202	13:58
BLANK TEST	0.000	13:59
EXTERNAL STANDARD	0.202	13:59
BLANK TEST	0.000	14:00

Average = 0.2018  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 6

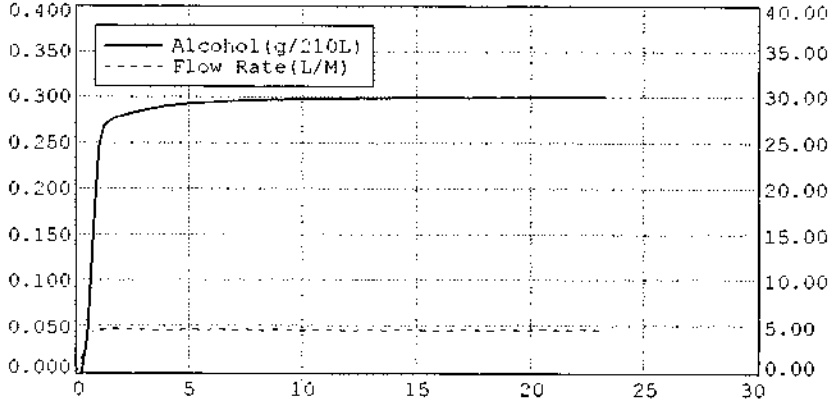
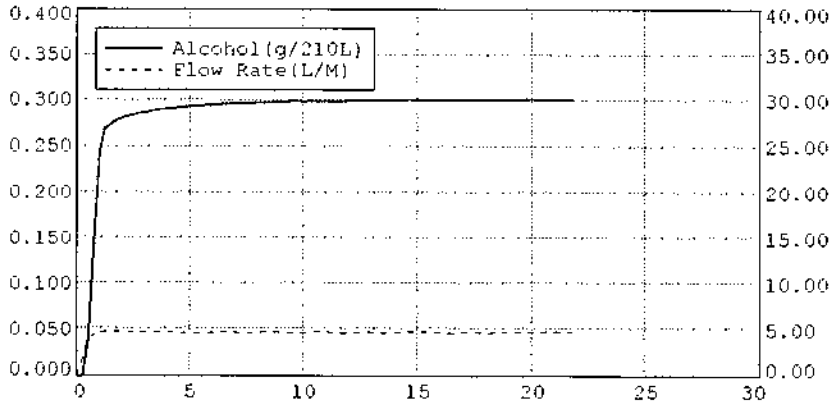
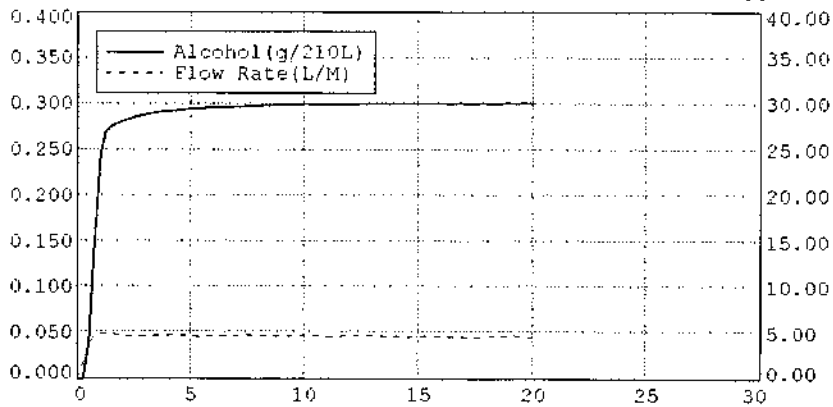
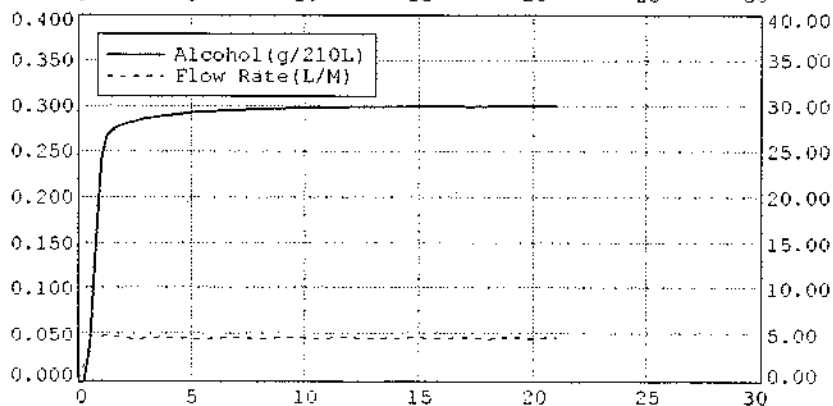
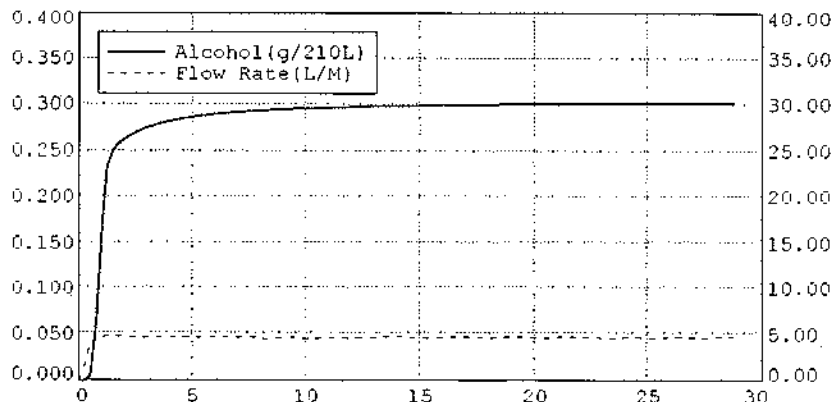
Alaska Department of Public Safety  
 DATAMASTER dmt: 100344

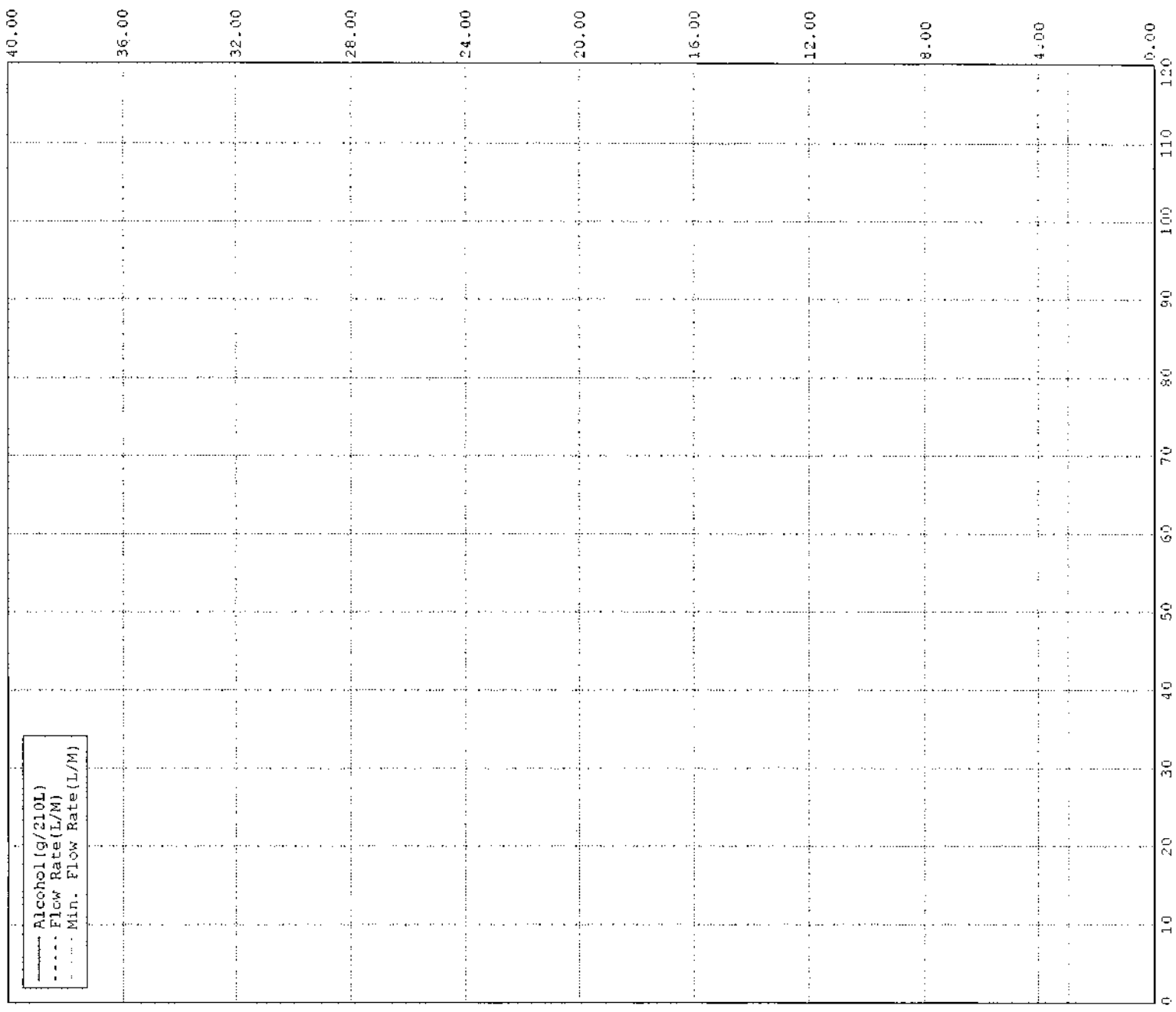
Date: 05/04/2016  
 Time: 14:03:46

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

BLANK TEST	0.000	14:04
INTERNAL STANDARD	VERIFIED	14:04
EXTERNAL STANDARD	0.302	14:05
BLANK TEST	0.000	14:06
EXTERNAL STANDARD	0.301	14:06
BLANK TEST	0.000	14:07
EXTERNAL STANDARD	0.301	14:08
BLANK TEST	0.000	14:09
EXTERNAL STANDARD	0.301	14:09
BLANK TEST	0.000	14:10
EXTERNAL STANDARD	0.301	14:11
BLANK TEST	0.000	14:12

Average = 0.3012  
 Std Dev = 0.0004





**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100344  
 -----  
 Date: 05/04/2016  
 Time: 14:18:38

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 AF 29.63: 0.079  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 14:26  
 BLANK TEST 0.000 14:26  
 INTERNAL STANDARD VERIFIED 14:26  
 INTERNAL STANDARD 0.079 14:27  
 BLANK TEST 0.000 14:27  
 SUBJECT SAMPLE INCOMPLETE 14:30

*COB*

SUBJECT TEST

Alaska Department of Public Safety

DATAMASTER dmt: 100344

Date: 05/04/2016  
Time: 14:32:00

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

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

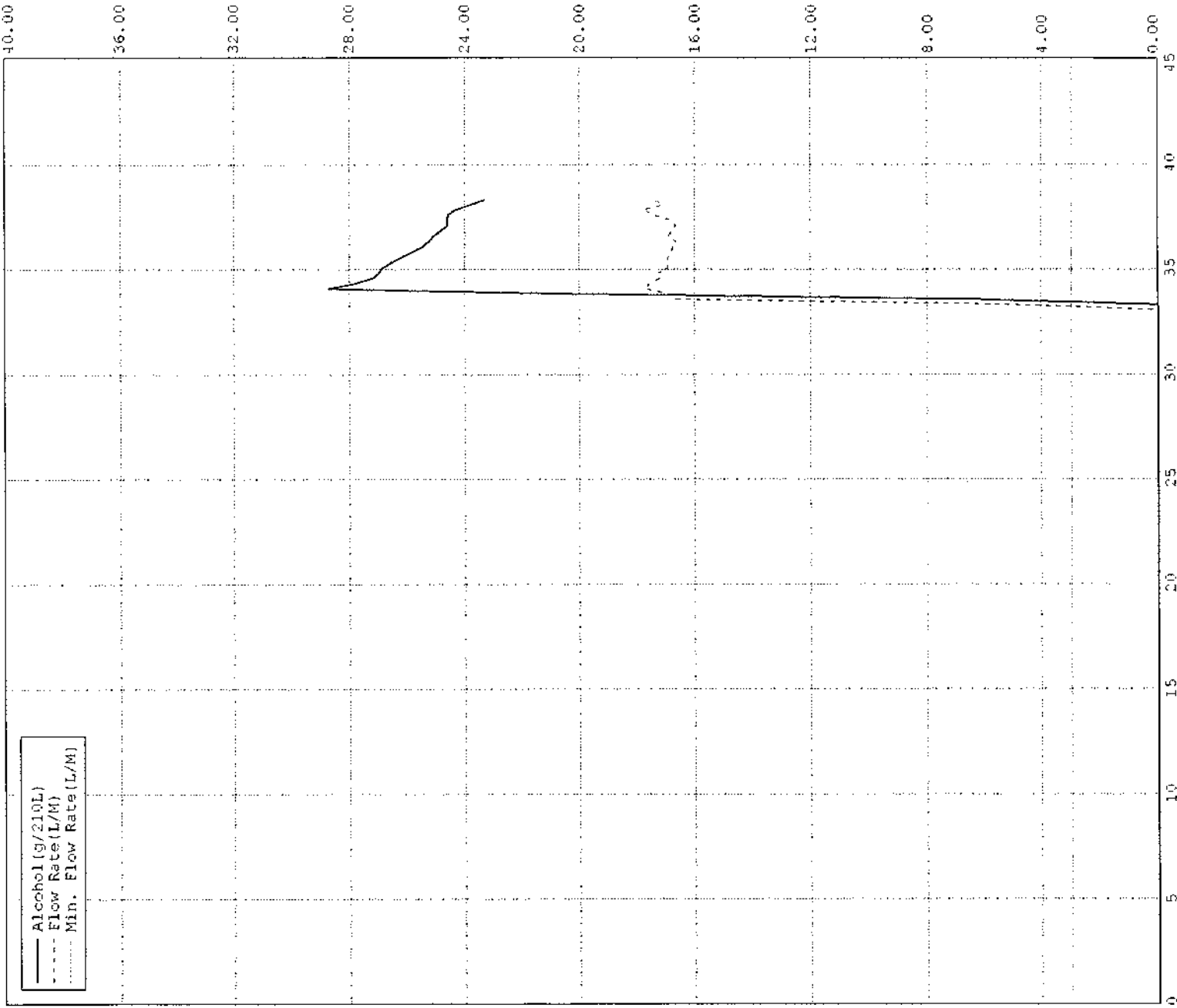
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	14:33
BLANK TEST	0.000	14:33
INTERNAL STANDARD	VERIFIED	14:33
EXTERNAL STANDARD	0.079	14:33
BLANK TEST	0.000	14:34
SUBJECT SAMPLE	INVALID	14:35

*CS*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100344

Date: 05/04/2016  
Time: 14:51:57

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

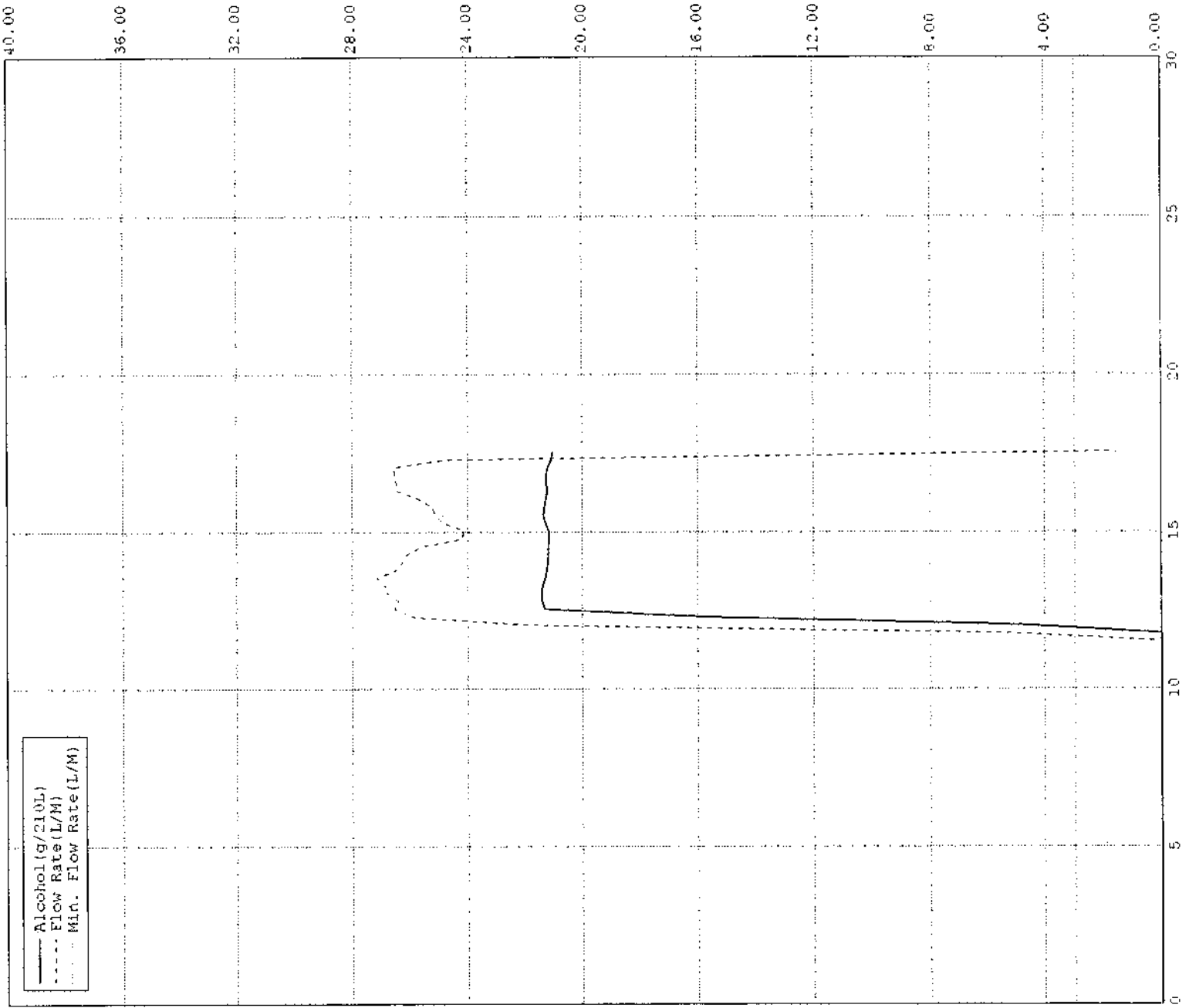
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	14:53
BLANK TEST	0.000	14:53
INTERNAL STANDARD	VERIFIED	14:53
Xq = 0.106 (1.60%)		
EXTERNAL STANDARD	0.079	14:53
X[1] = 0.0790 (-0.0008) (0.0031)		
BLANK TEST	0.000	14:54
SUBJECT SAMPLE	XXX	14:54
X[1] = 0.1061 (-0.0173) (0.0023)		

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100344

Date: 05/04/2016  
Time: 14:57:57

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

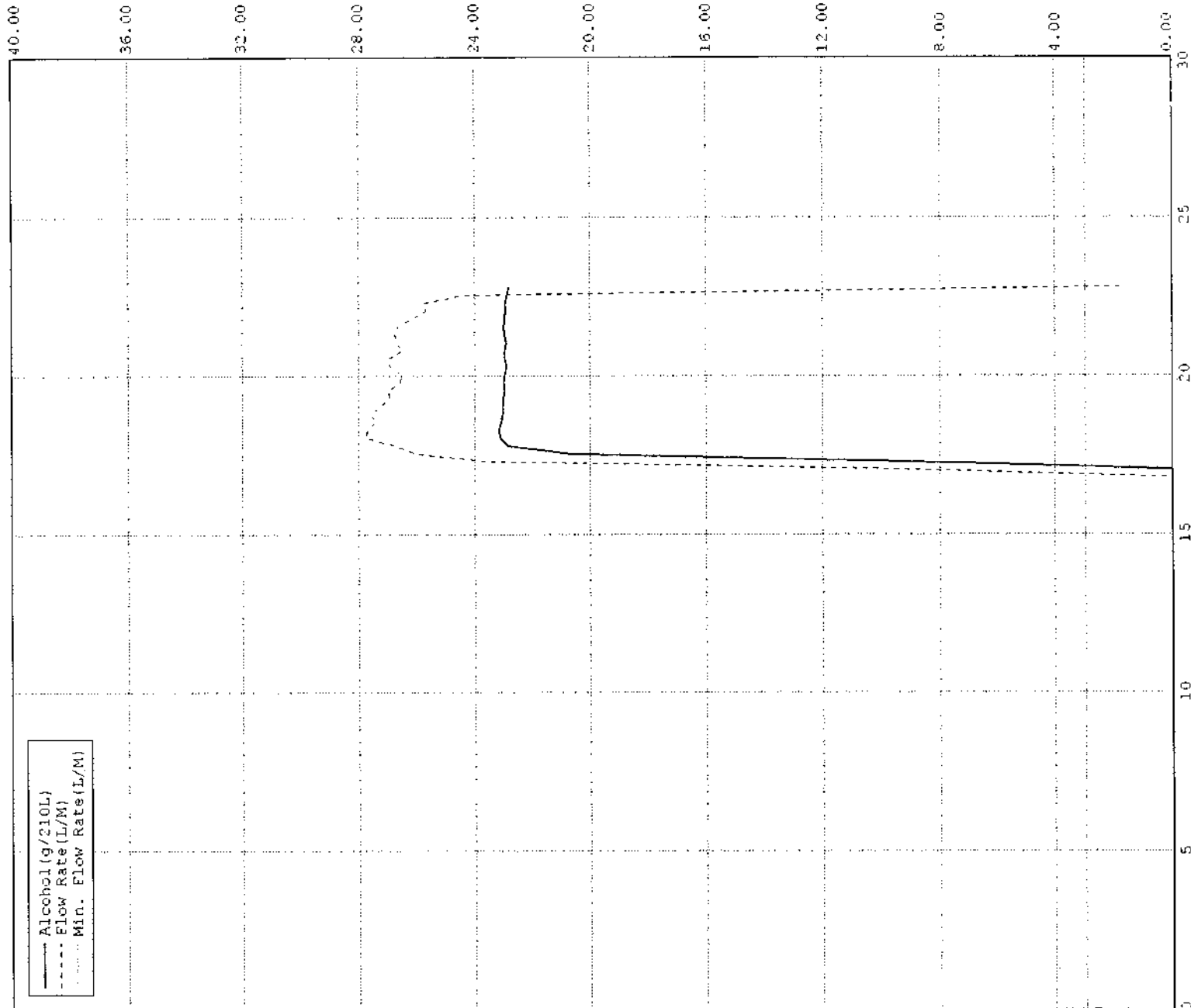
OPERATOR NAME:  
COLLEEN S O'BRYANT  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 14:58  
BLANK TEST 0.000 14:59  
INTERNAL STANDARD VERIFIED 14:59  
Xq = 0.106 (1.60%)  
EXTERNAL STANDARD 0.079 14:59  
X[1] = 0.0794 (-0.0008) (0.0026)  
BLANK TEST 0.000 15:00  
SUBJECT SAMPLE XXX 15:00  
X[1] = 0.1151 (-0.0169) (0.0010)

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100344

Date: 05/04/2016  
Time: 15:03:00

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

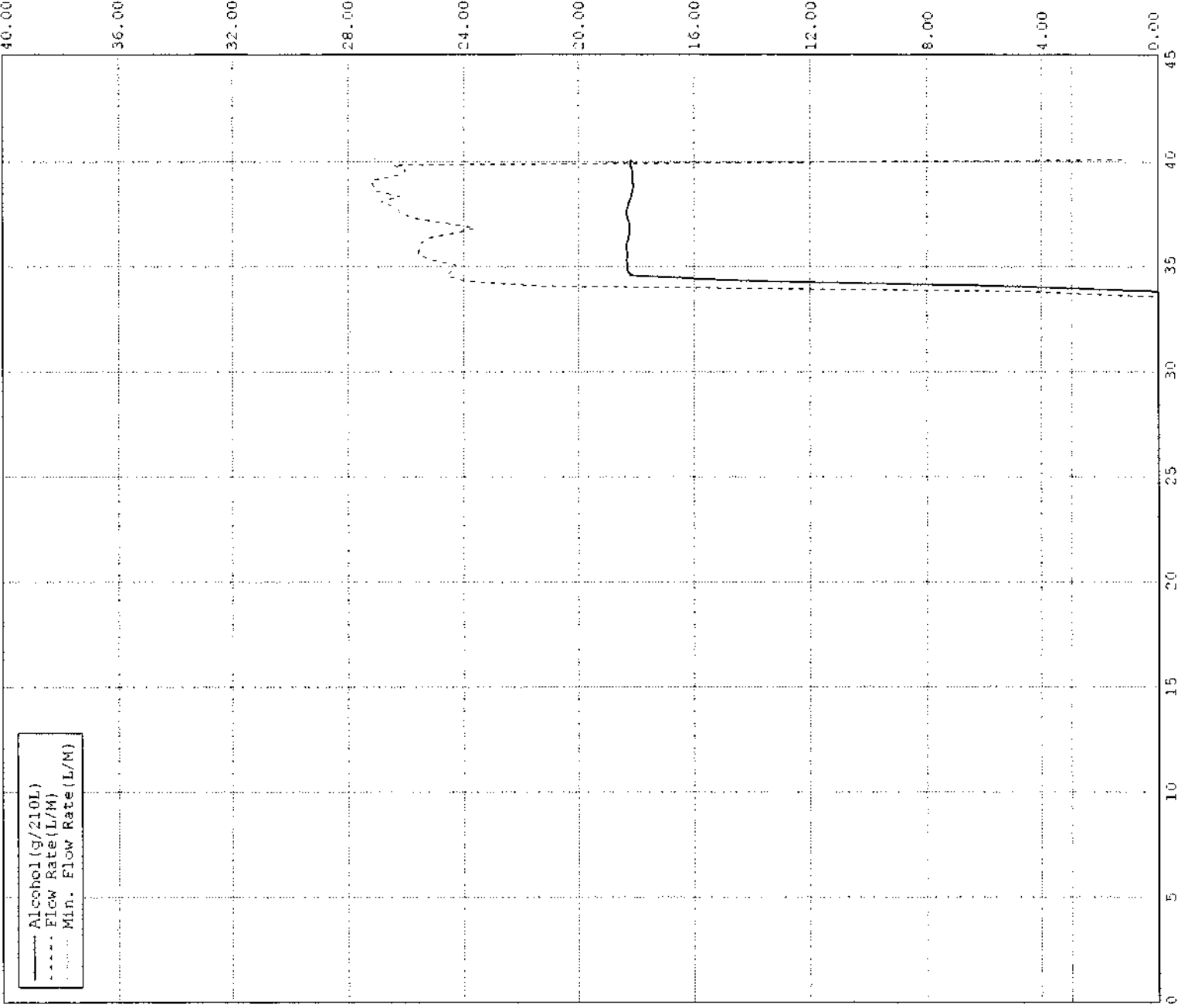
DEPT/AGENCY:  
AAA1  
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	15:03
BLANK TEST	0.000	15:04
INTERNAL STANDARD	VERIFIED	15:04
Xq = 0.106 (1.43%)		
EXTERNAL STANDARD	0.079	15:04
X[1] = 0.0795 (-0.0010) (0.0021)		
BLANK TEST	0.000	15:05
SUBJECT SAMPLE (Vol=2.56L)	0.091	15:06
X[1] = 0.0915 (0.0000) (0.0006)		
BLANK TEST	0.000	15:07
EXTERNAL STANDARD	0.079	15:07
X[1] = 0.0795 (-0.0005) (0.0023)		
BLANK TEST	0.000	15:08

Filter 2 avg = -0.0008  
Filter 3 avg = 0.0025

CAB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100344

Date: 05/05/2016  
Time: 10:22:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: MAX ATTEMPTS

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

DEPT/AGENCY:  
AAA1

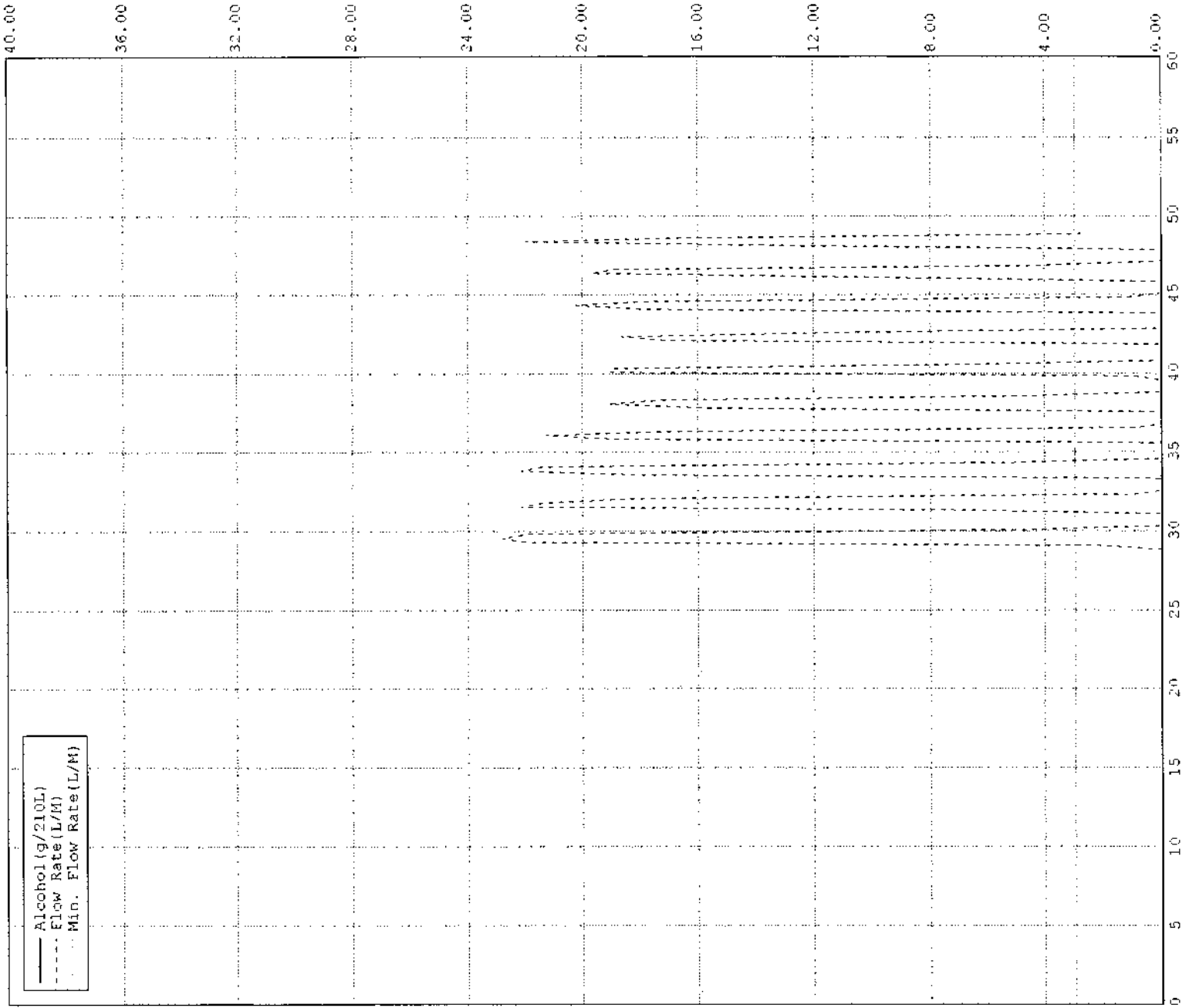
CASE/REPORT: 16-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.58: 0.079  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 10:23  
BLANK TEST 0.000 10:23  
INTERNAL STANDARD VERIFIED 10:23  
EXTERNAL STANDARD 0.079 10:23  
BLANK TEST 0.000 10:24  
SUBJECT SAMPLE XXX 10:25

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100344

Date: 05/05/2016  
Time: 10:29:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: RPI

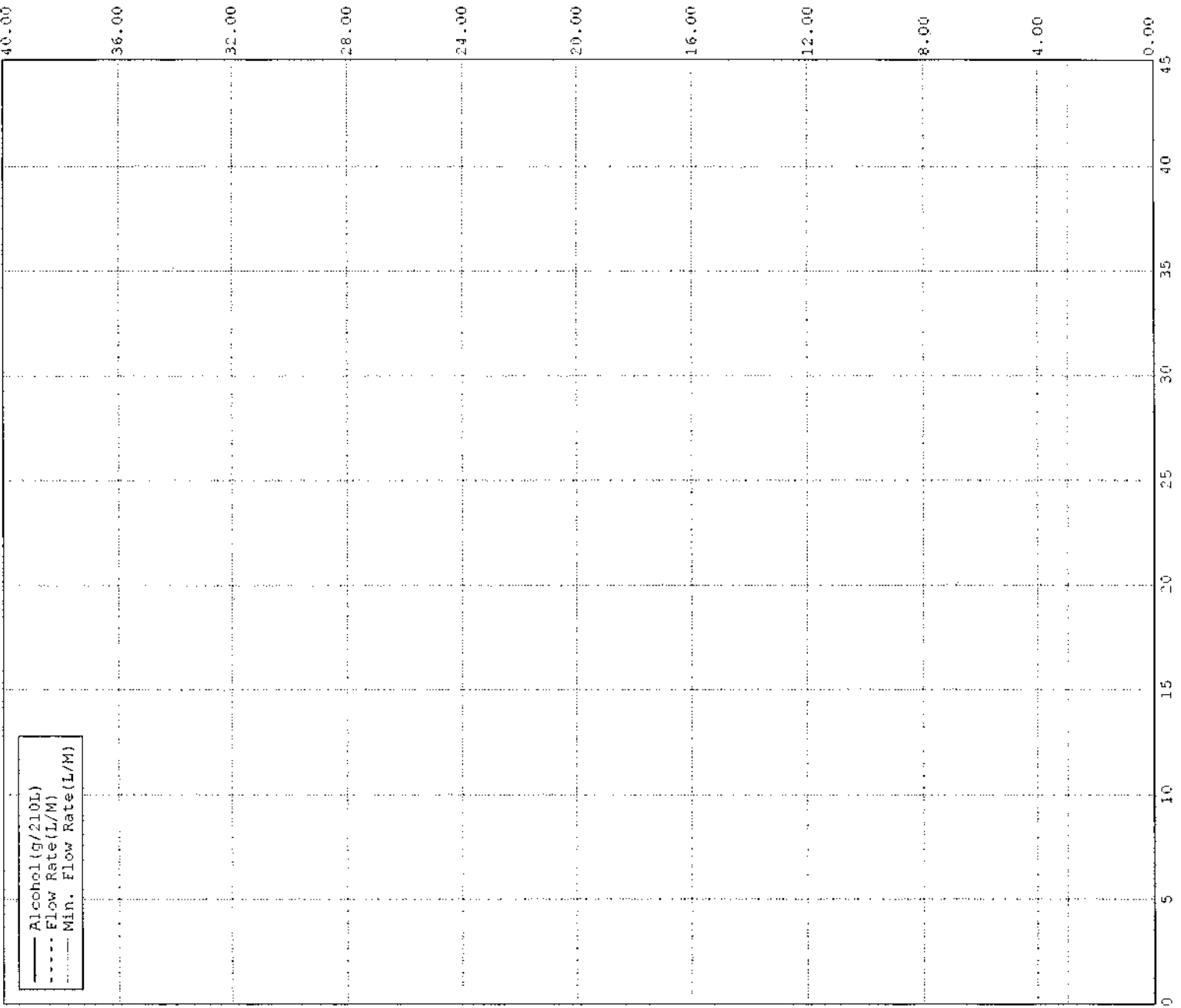
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.59: 0.079  
LOF #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK PASSED 10:35  
BLANK TEST 0.000 10:35  
INTERNAL STANDARD VERIFIED 10:35  
EXTERNAL STANDARD 0.079 10:35  
BLANK TEST 0.000 10:36

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety

DATA MASTER dmt: 100344

Date: 05/05/2016

Time: 10:53:16

SUBJECT NAME:

TEST TEST

LICENSE #: NON-DRINKING

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 29.58: 0.079

LOT #: AG608504

EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:54
BLANK TEST	0.000	10:54
INTERNAL STANDARD	VERIFIED	10:54
EXTERNAL STANDARD	0.080	10:54
BLANK TEST	0.000	10:55
SUBJECT SAMPLE (Vol=1.60L)	0.000	10:56
BLANK TEST	0.000	10:57
EXTERNAL STANDARD	0.080	10:57
BLANK TEST	0.000	10:58

