

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 10/9/2014  
Effective: 10/9/2014

Version: DMCEF 2014 R1  
Status: Active

Instrument S/N 100692 Analyst Colleen O'Bryant Start Date 12/11/14

1. Diagnostic Test (attached)
2. 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)

3. Print Calibration Factors (attached)

4. Volume Test - Minimum 1.6 L (1.3L to 1.7L)

5. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf ILMO Lot 00813020A1 Exp 3/1/15
- ii. 0.040g/210L Mnf ILMO Lot 00813040A2 Exp 3/1/15
- iii. 0.080g/210L Mnf ILMO Lot 09214080A2 Exp 5/1/16
- iv. 0.100g/210L Mnf ILMO Lot 00813100A3 Exp 3/1/15
- v. 0.200g/210L Mnf 99 Guth Lot 14130 Exp 5/12/16
  1. Simulator S/N DE5298 Date Calibrated 2/19/14
- vi. 0.300g/210L Mnf Guth Lot 14150 Exp 6/2/16
  1. Simulator S/N SD1177 Date Calibrated 2/20/14

6. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference

- i. Acetone - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N SD1198 Date Calibrated 2/20/14
- ii. Isopropanol - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N SD1202 Date Calibrated 2/20/14
- iii. Negative Control - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N DE4161 Date Calibrated 2/19/14

d. RFI

7. Verify stylus is calibrated
8. Reset Options
9. Clear Memory
10. Verification of Calibration
11. Non-Drinking Subject Test (attached)
12. Upload
13. Remove tank prior to shut down

End Date 12/17/14

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100692  
-----

Date: 12/11/2014  
Time: 15:22:48

VERSIONS

DMT: 2.00  
PIC: 3.03  
Modem: 2.3  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.1°C PASSED  
Breath Tube = 47.7°C PASSED

PUMP INFO

Flow Rate = 4.376 L/M PASSED

DETECTOR INFO

PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

PASSED

Technician Screen

-----  
DATAMASTER dmt: 100692  
-----

Date: 12/11/2014  
Time: 3:35 PM

Temperatures (°C)  
Sample Cell: 48.7°C  
Breath Tube: 47.7°C

Current Barometer 28.9 in  
Volume (Ltr) 1.47

Settings  
Lamp: 1.69 V  
Bias: 80 V  
Cooler: 1.55 V  
Chopper: 536 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: 0.010 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100692  
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Date: 11/02/2011  
Time: 08:49:23

Ca = 0.1000  
CAL = 0.993327    0.800 <= CAL < 1.200  
b1 = 0.0000    0.0000 <= b1 < 0.0040  
b2 = 0.0036    0.0010 <= b2 < 0.0100  
b3 = 0.0000    0.0000 <= b3 < 0.0040  
Xq = 0.0906    0.0500 <= Xq < 0.2000  
a21 = 1.191929    1.050 <= a21 < 1.300  
a31 = 0.590430    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/11/2014  
Time: 15:37:09

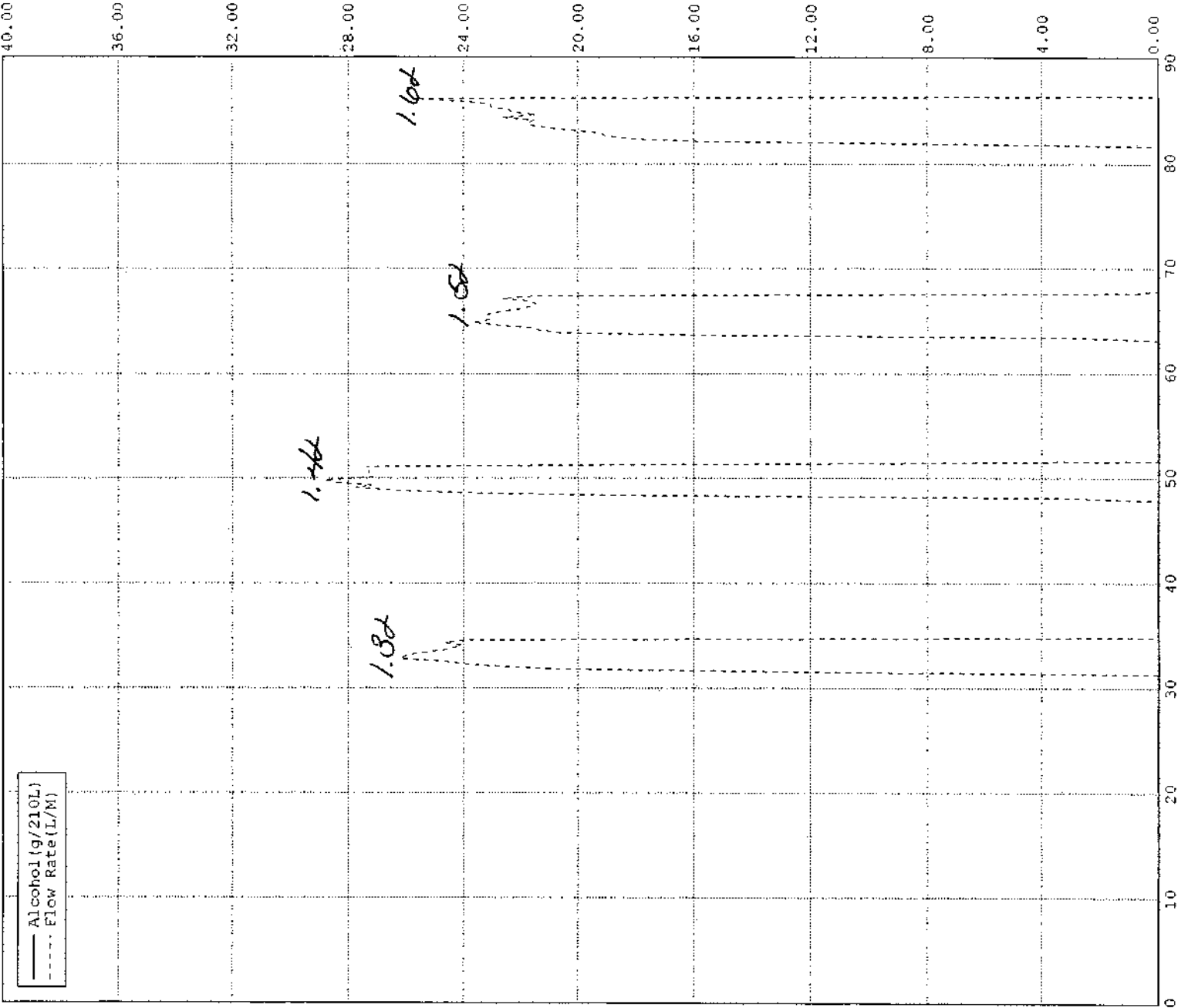
SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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

DEPT/AGENCY:  
AAAJ  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

DIAGNOSTIC CHECK	PASSED	15:38
BLANK TEST	0.000	15:38
INTERNAL STANDARD	VERIFIED	15:38
SUBJECT SAMPLE	0.000	15:39
BLANK TEST	0.000	15:40

*No external standard tested  
option turned off. option reset  
following volume test. CBS 12/18/14*



LINEARITY CHECK

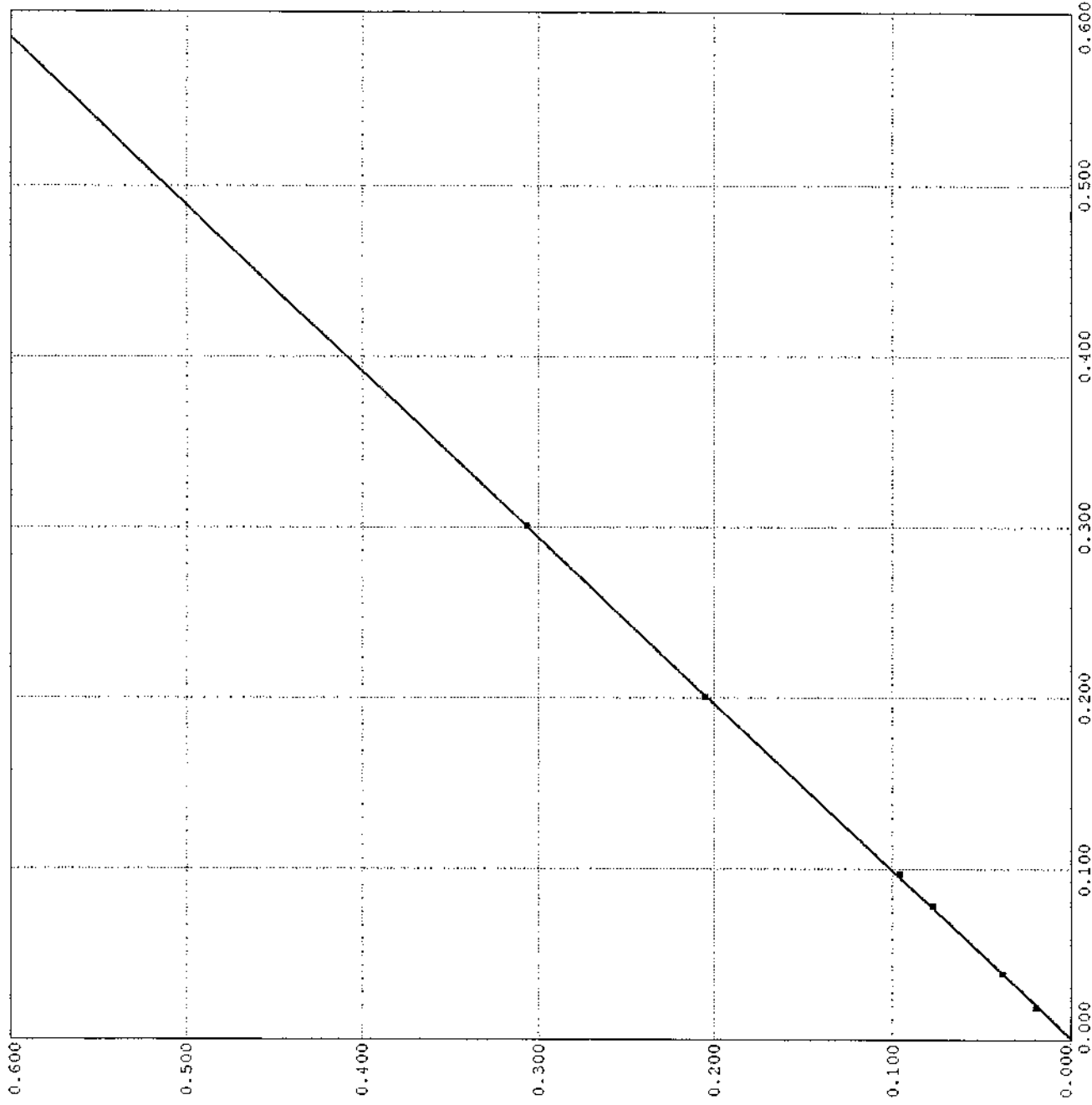
Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/17/2014  
Time: 09:09:01

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0204	0.0002
0.039	0.0395	0.0002
0.078	0.0784	0.0001
0.097	0.0968	0.0000
0.200	0.2059	0.0002
0.300	0.3073	0.0002

SLOPE = 1.026890  
R<sup>2</sup> = 0.999846



*COB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100692

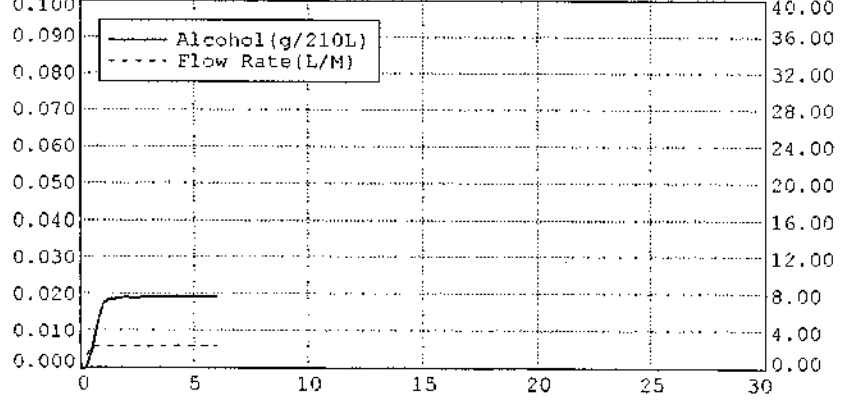
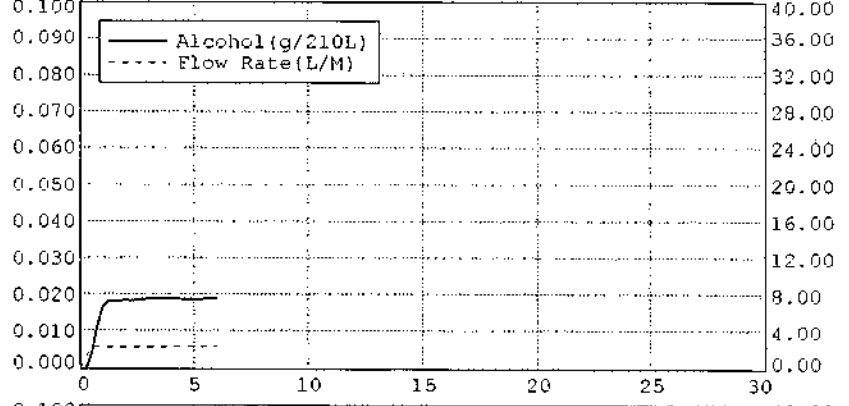
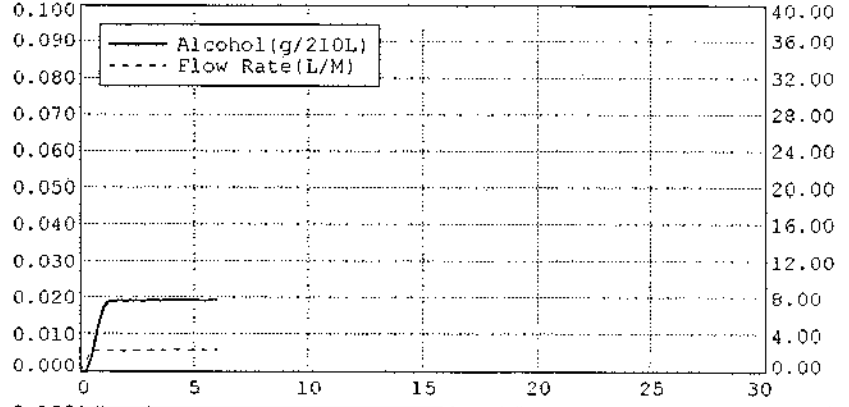
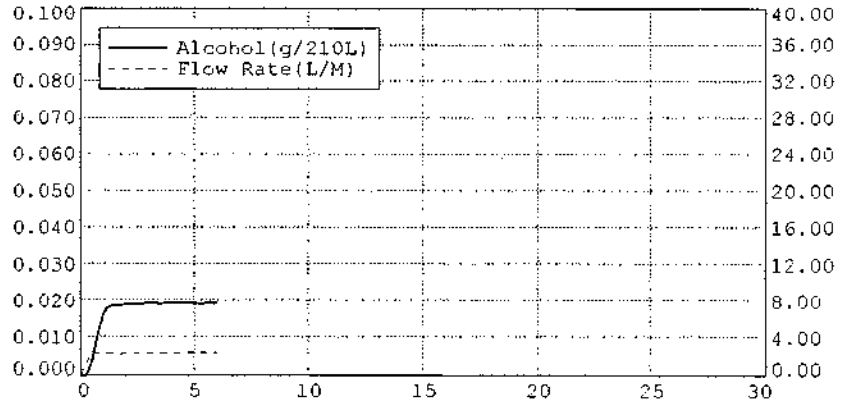
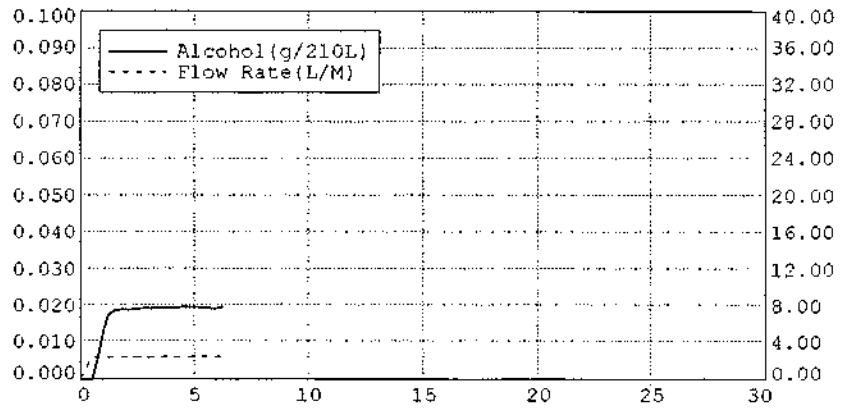
Date: 12/17/2014  
 Time: 09:23:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.27: 0.019  
 LOT #: 00813020A1  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:24
INTERNAL STANDARD	VERIFIED	09:24
EXTERNAL STANDARD	0.020	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.020	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.020	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.020	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.020	09:28
BLANK TEST	0.000	09:29

Average = 0.0204  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 2

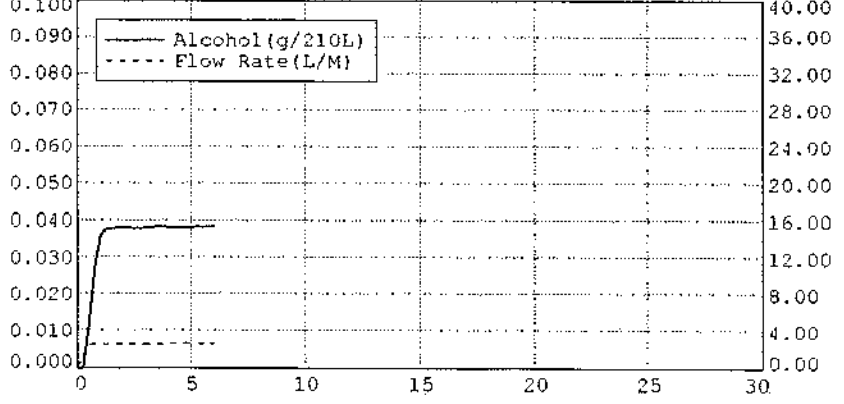
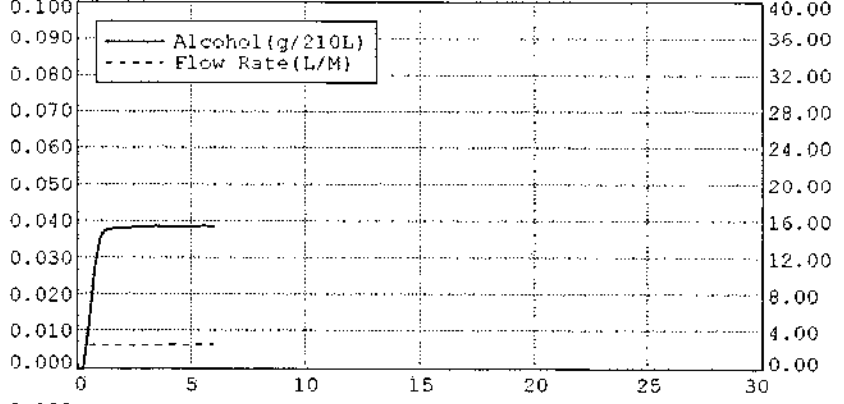
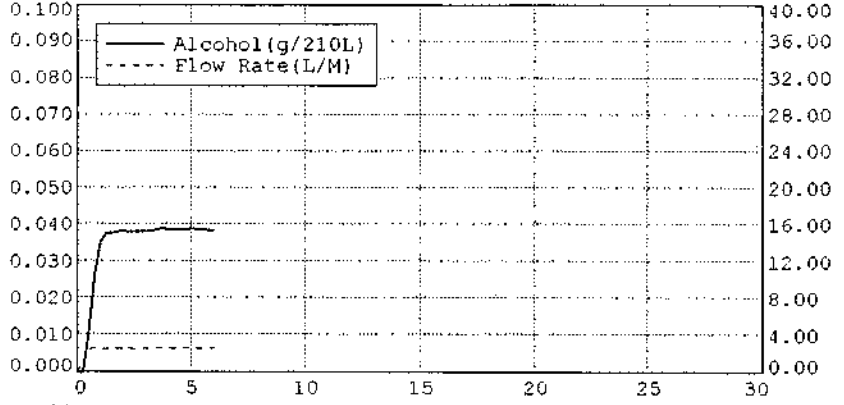
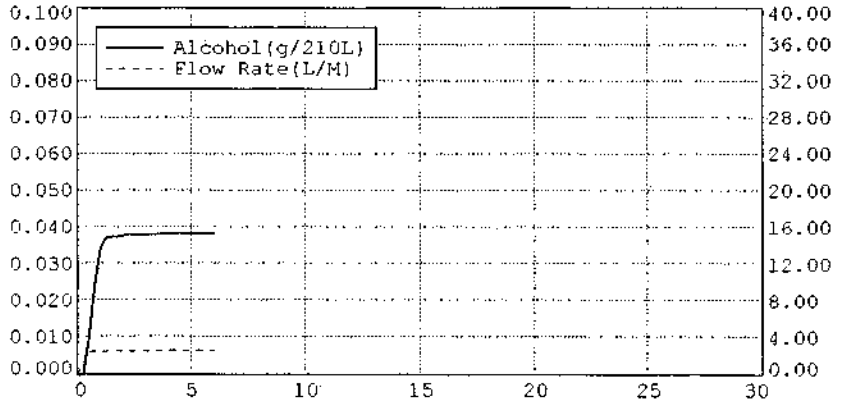
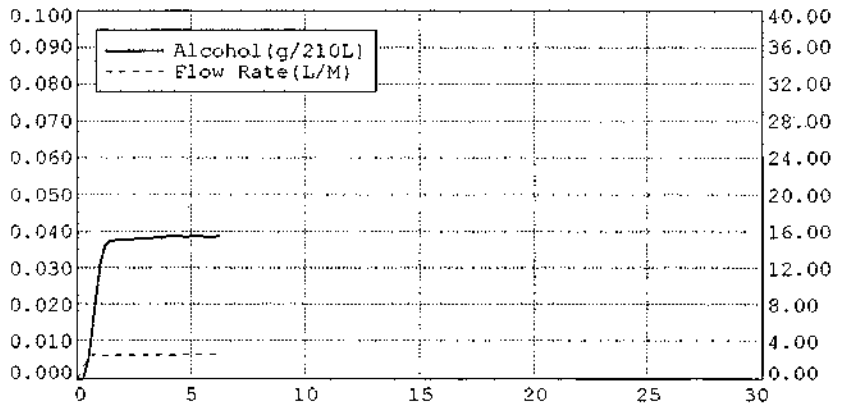
Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/17/2014  
Time: 09:31:05

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.040  
TARGET AT 29.27: 0.039  
LOT #: 00813040A2  
EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:32
INTERNAL STANDARD	VERIFIED	09:32
EXTERNAL STANDARD	0.039	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.039	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.039	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.039	09:36
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.039	09:37
BLANK TEST	0.000	09:38

Average = 0.0395  
Std Dev = 0.0002





LINEARITY CHECK: Control Test 3

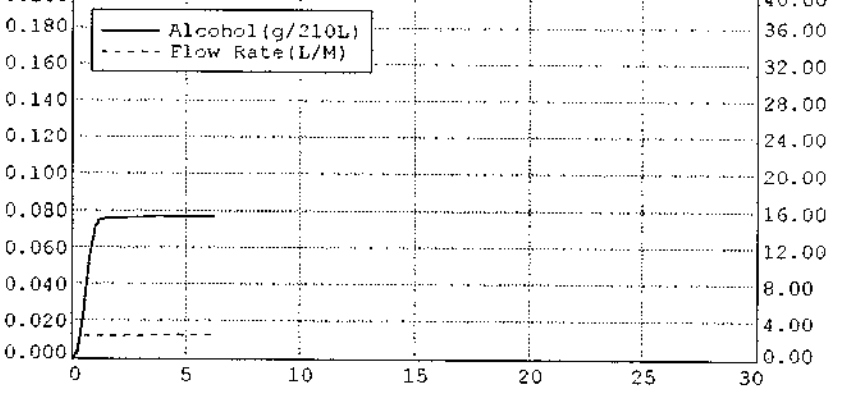
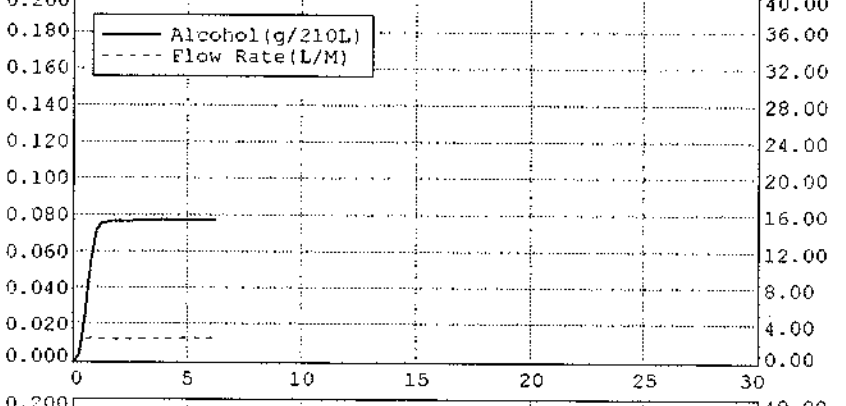
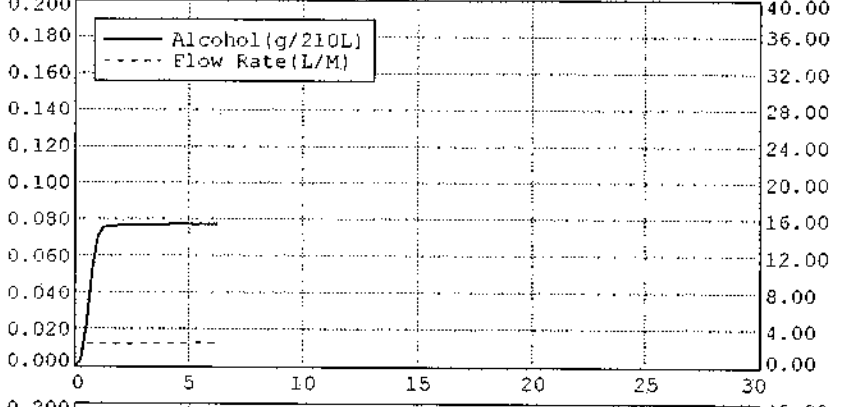
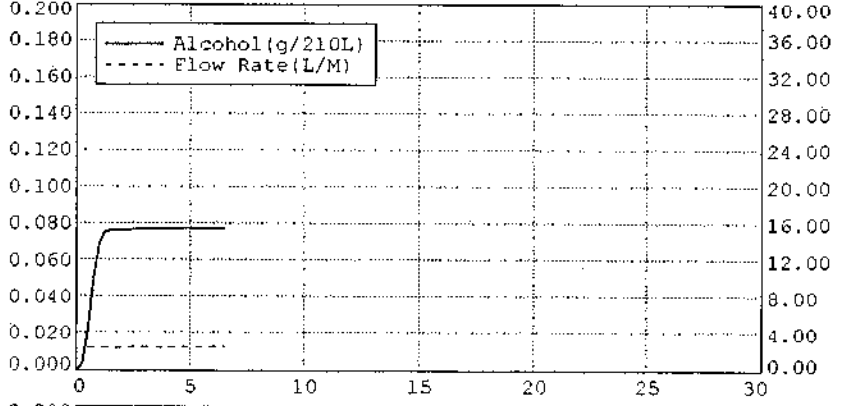
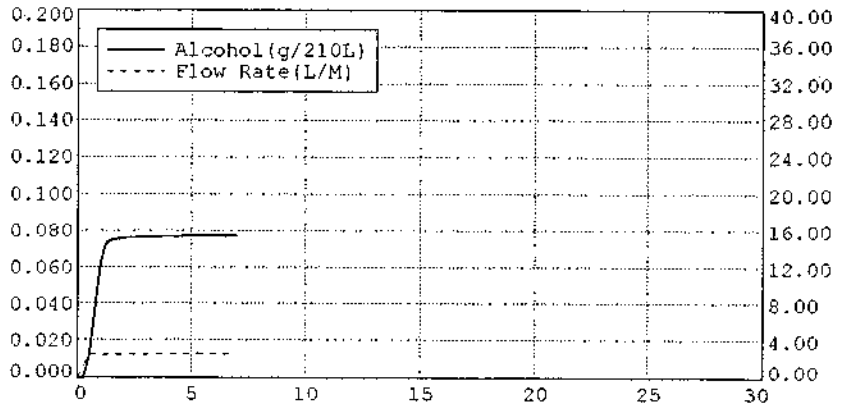
Alaska Department of Public Safety  
 DATAMASTER dmt: 100692

Date: 12/17/2014  
 Time: 09:40:42

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.28: 0.078  
 LOT #: 09214080A2  
 EXPIRATION: 05/01/2016

BLANK TEST	0.000	09:41
INTERNAL STANDARD	VERIFIED	09:41
EXTERNAL STANDARD	0.078	09:42
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.078	09:43
BLANK TEST	0.000	09:44
EXTERNAL STANDARD	0.078	09:44
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.078	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.078	09:46
BLANK TEST	0.000	09:47

Average = 0.0784  
 Std Dev = 0.0001



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100692

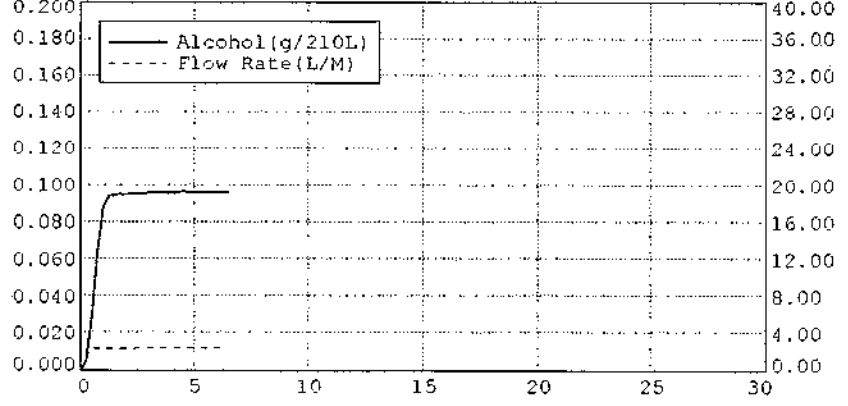
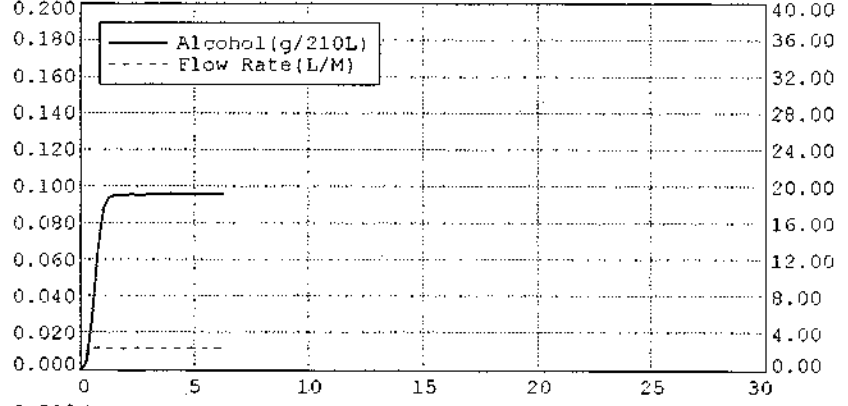
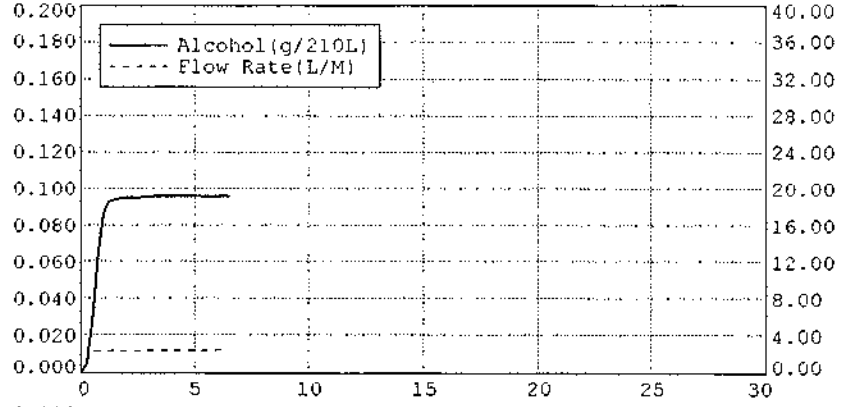
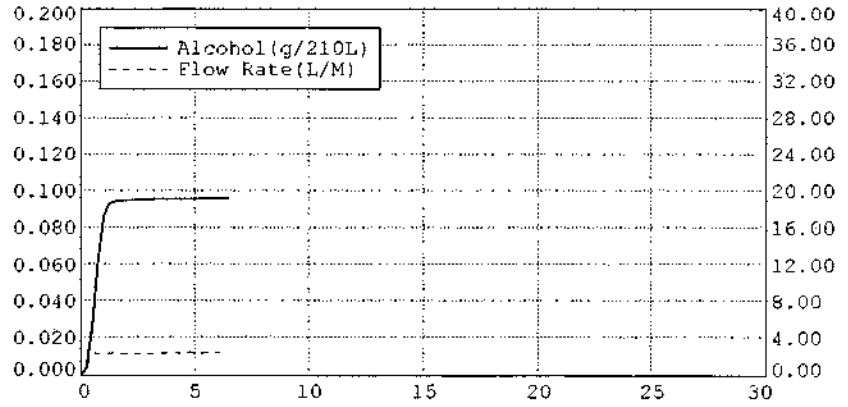
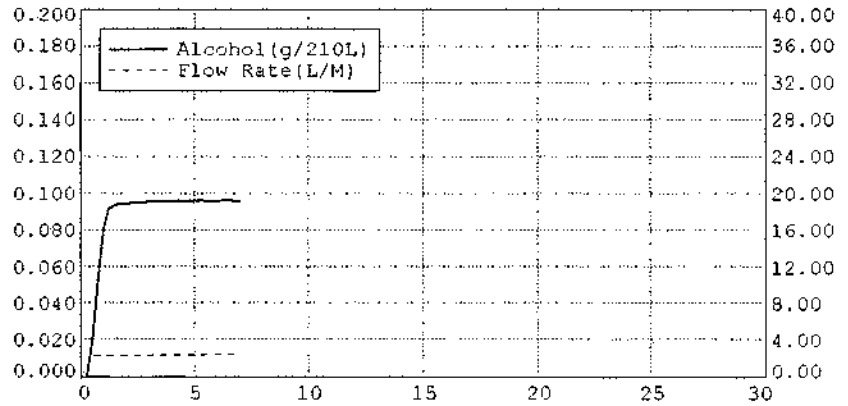
Date: 12/17/2014  
 Time: 09:48:54

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.29: 0.097  
 LOT #: 00813100A3  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:50
INTERNAL STANDARD	VERIFIED	09:50
EXTERNAL STANDARD	0.096	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.096	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.096	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.096	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.096	09:55
BLANK TEST	0.000	09:55

Average = 0.0968  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100692

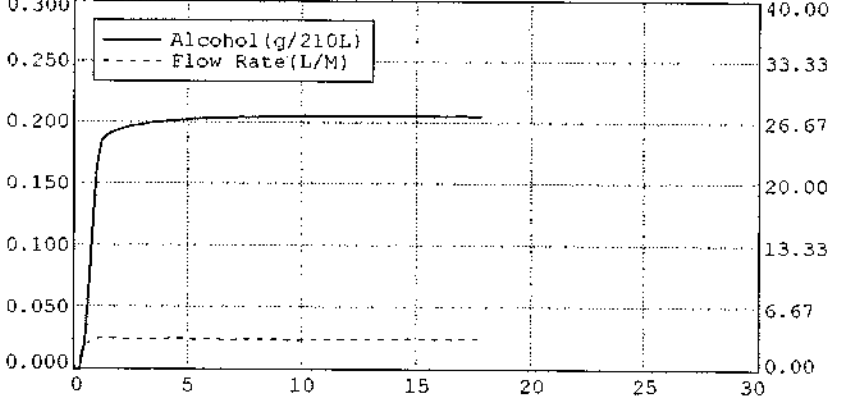
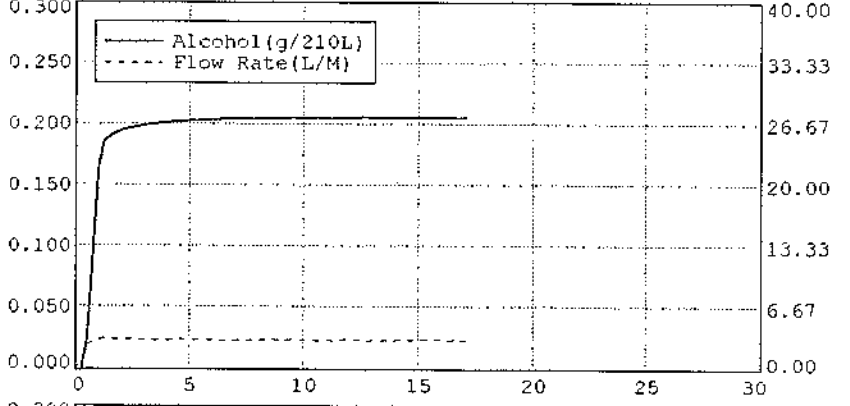
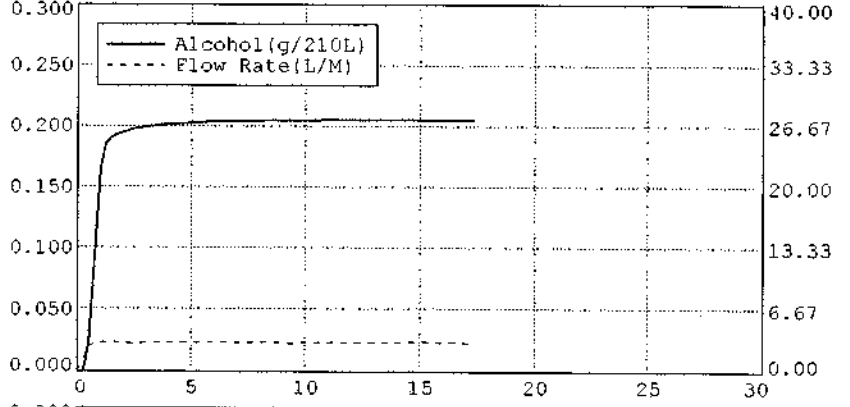
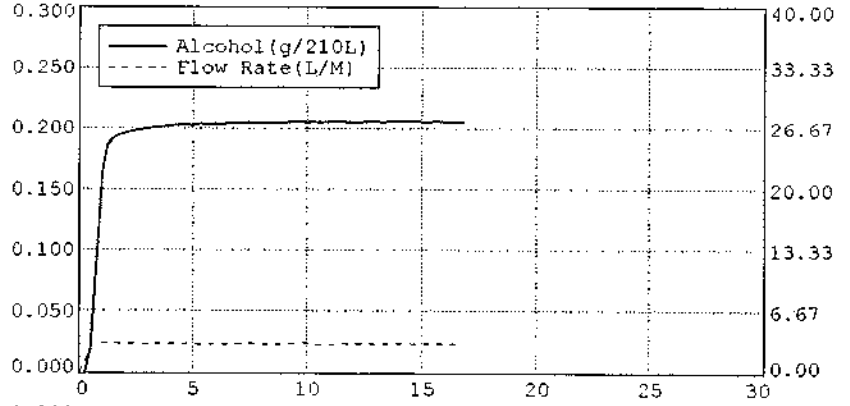
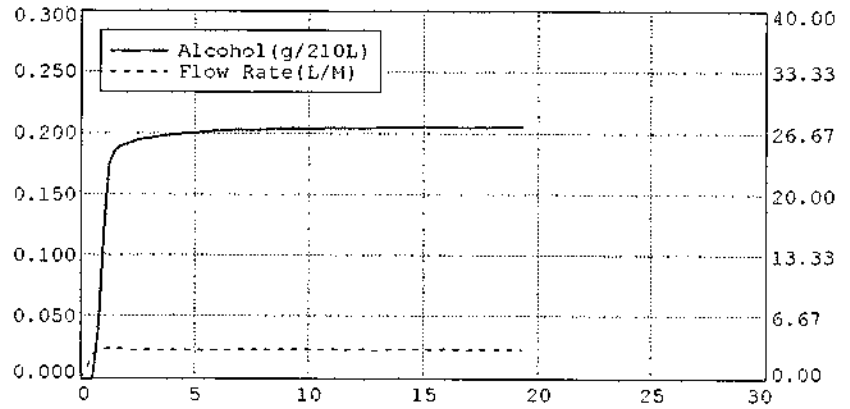
Date: 12/17/2014  
 Time: 09:57:18

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 14130  
 EXPIRATION: 05/12/2016

BLANK TEST	0.000	09:59
INTERNAL STANDARD	VERIFIED	09:59
EXTERNAL STANDARD	0.205	10:00
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.206	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.205	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.205	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.206	10:05
BLANK TEST	0.000	10:06

Average = 0.2059  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100692

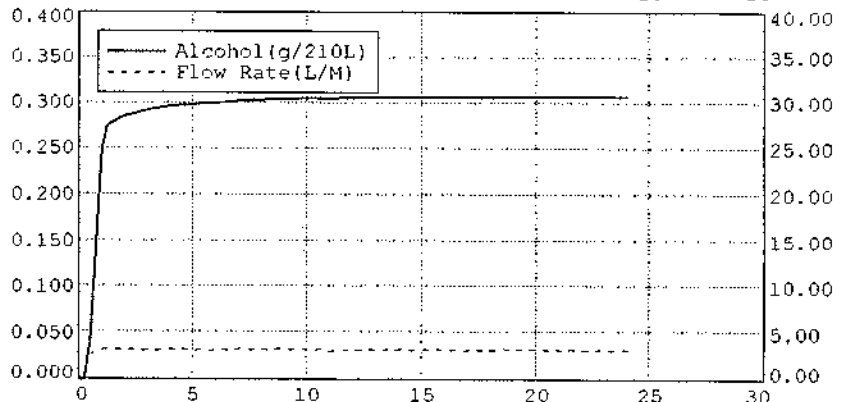
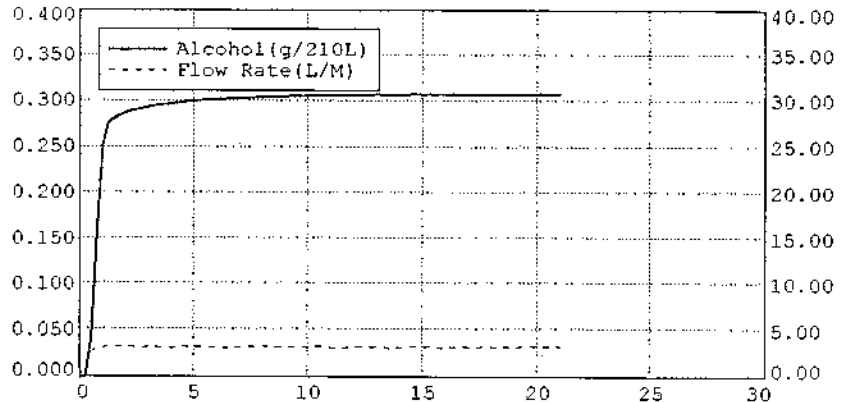
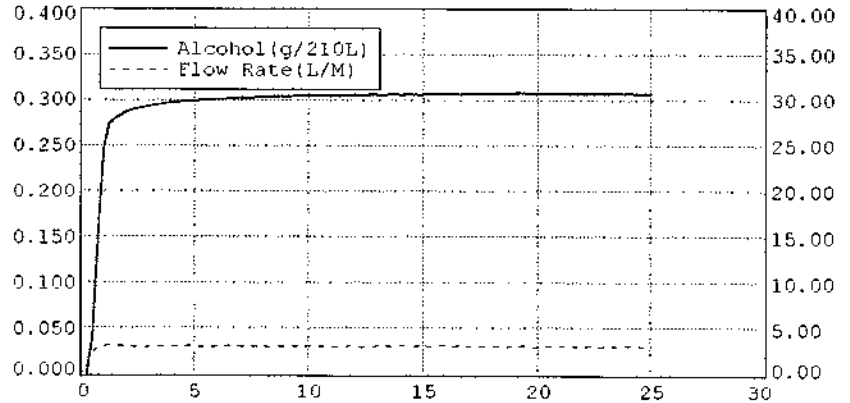
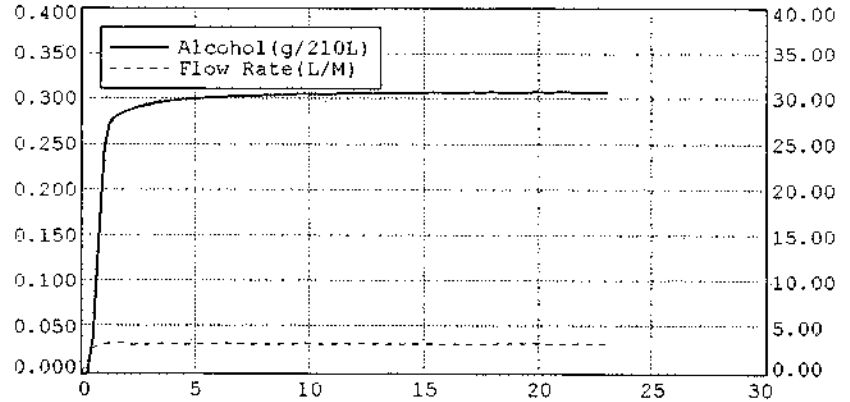
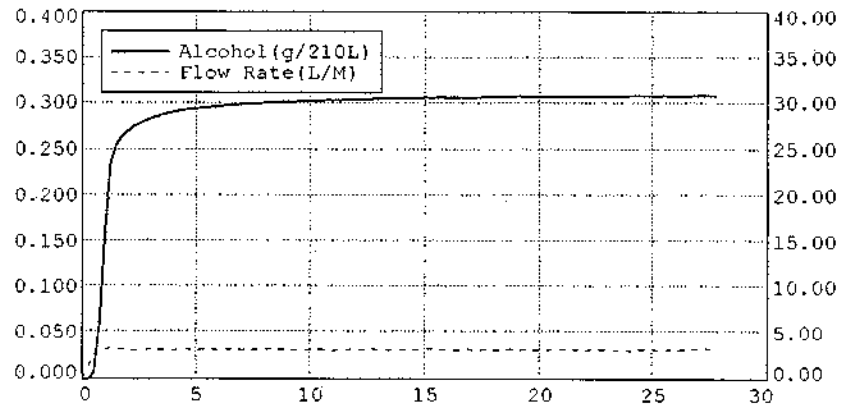
Date: 12/17/2014  
 Time: 10:08:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 14150  
 EXPIRATION: 06/02/2016

BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.307	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.307	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.307	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.307	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.307	10:16
BLANK TEST	0.000	10:17

Average = 0.3073  
 Std Dev = 0.0002



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/17/2014  
Time: 10:24:37

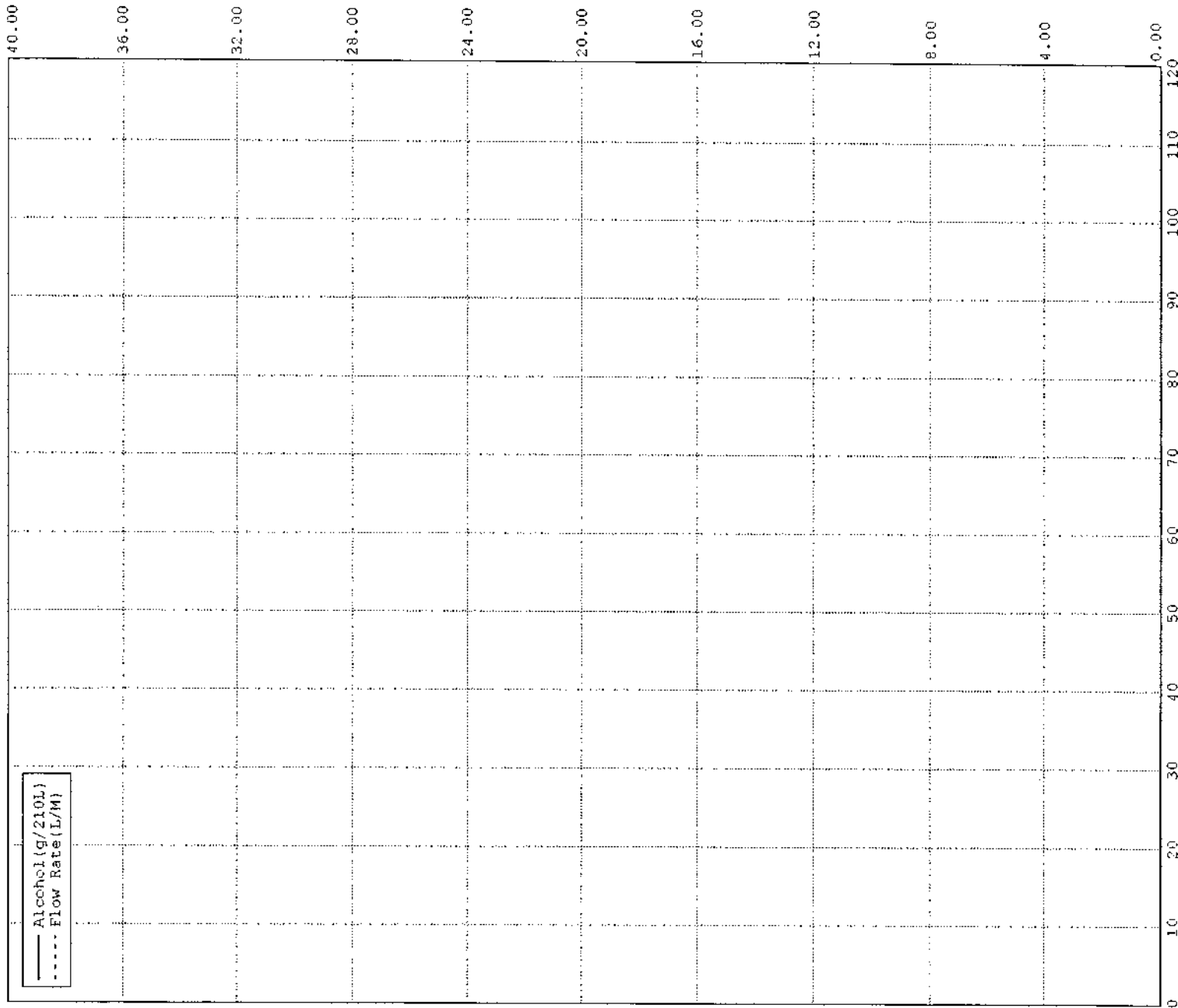
SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.29: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 10:25  
BLANK TEST 0.000 10:25  
INTERNAL STANDARD VERIFIED 10:25  
EXTERNAL STANDARD 0.078 10:26  
BLANK TEST 0.000 10:27  
SUBJECT SAMPLE INCOMPLETE 10:29



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/17/2014  
Time: 10:32:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

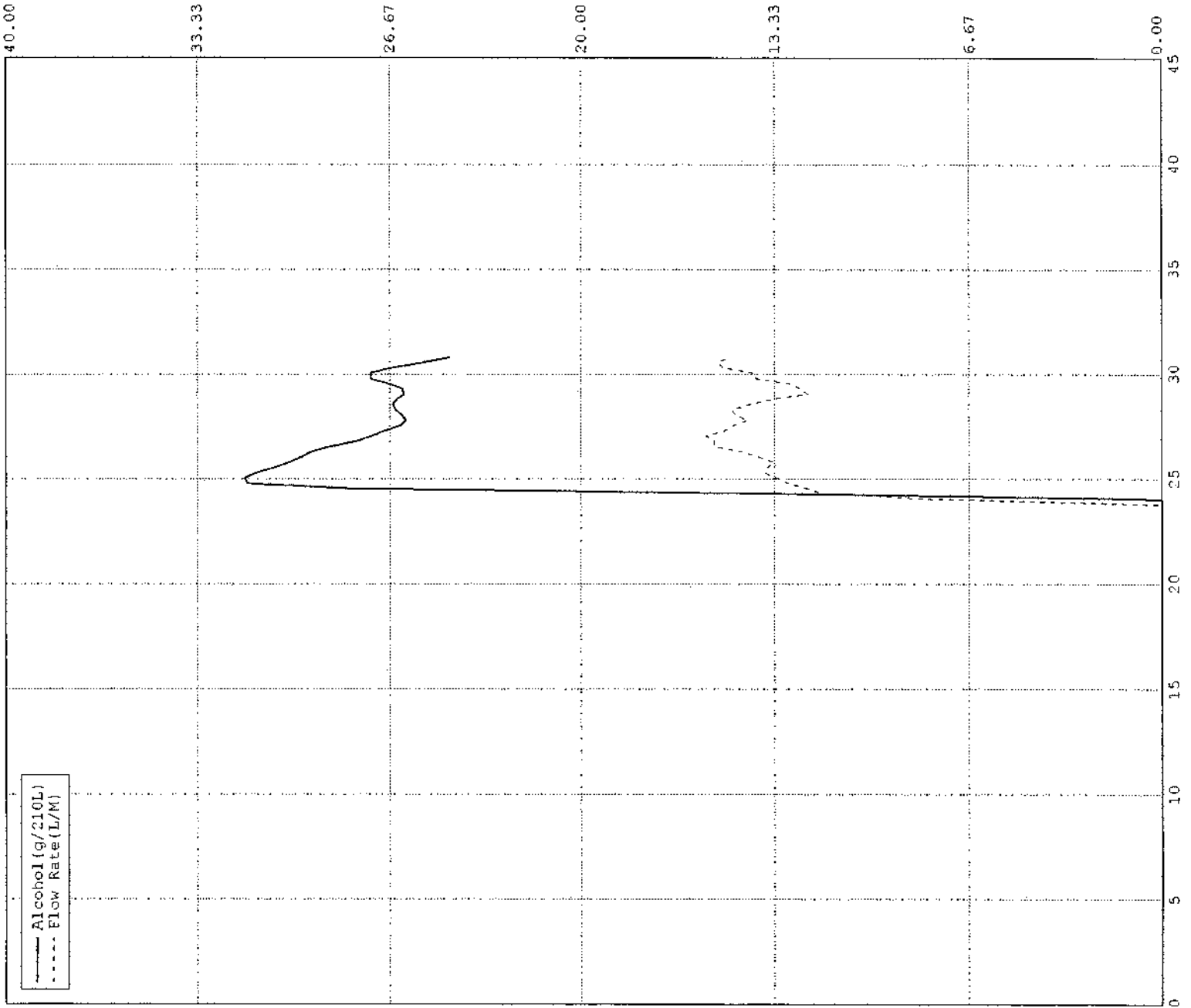
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	10:37
BLANK TEST	0.000	10:38
INTERNAL STANDARD	VERIFIED	10:38
EXTERNAL STANDARD	0.078	10:38
BLANK TEST	0.000	10:39
SUBJECT SAMPLE	INVALID	10:39

CS



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100692

Date: 12/17/2014  
Time: 13:52:35

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

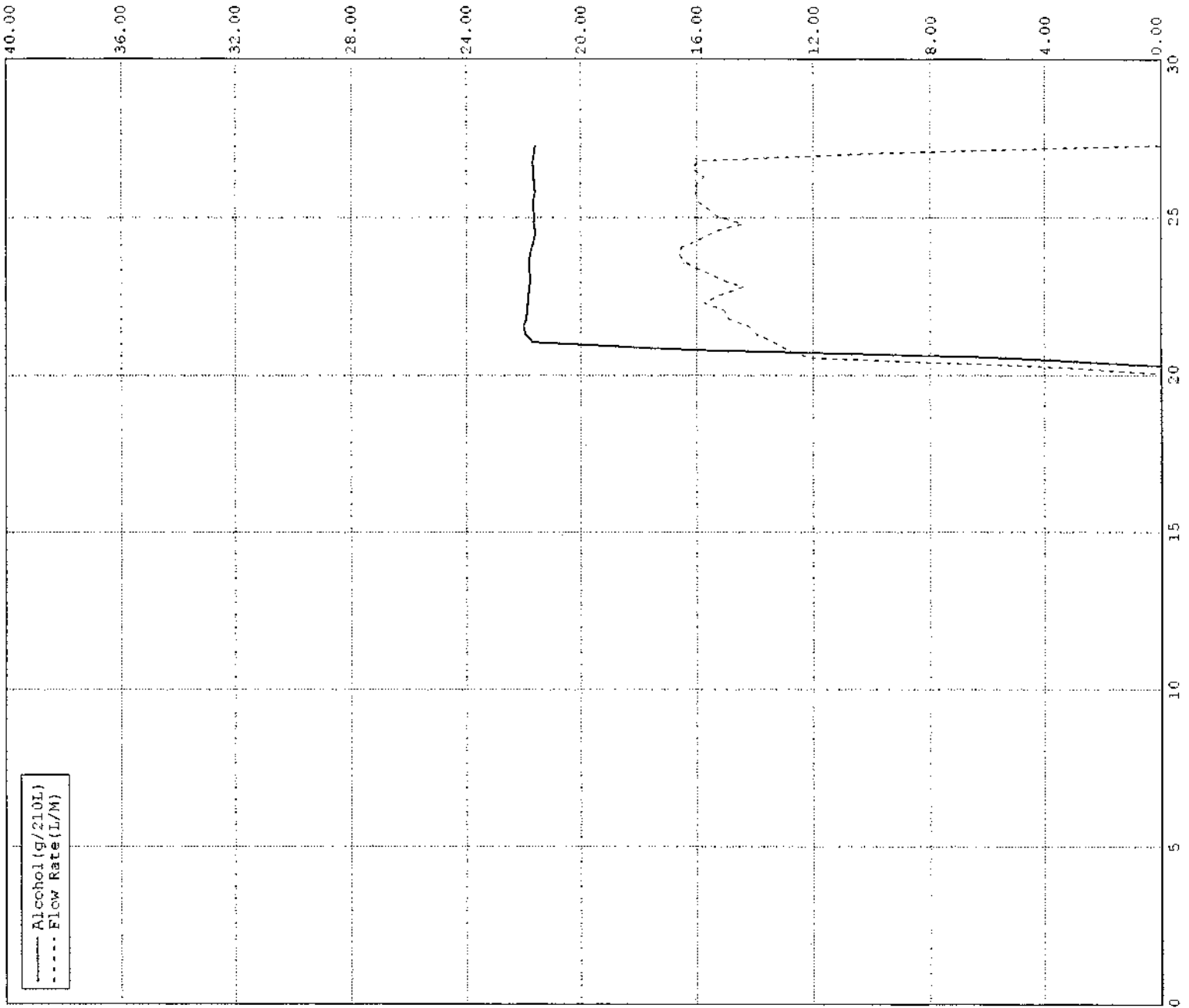
DEPT/AGENCY:  
AAA1

CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	13:55
BLANK TEST	0.000	13:55
INTERNAL STANDARD	VERIFIED	13:55
Xq = 0.090 (0.19%)		
EXTERNAL STANDARD	0.078	13:56
X[1] = 0.0788 (0.0014) (0.0026)		
BLANK TEST	0.000	13:56
SUBJECT SAMPLE	INTERFERENCE	13:57
X[1] = 0.1083 (-0.0166) (0.0028)		



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/17/2014  
Time: 14:00:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

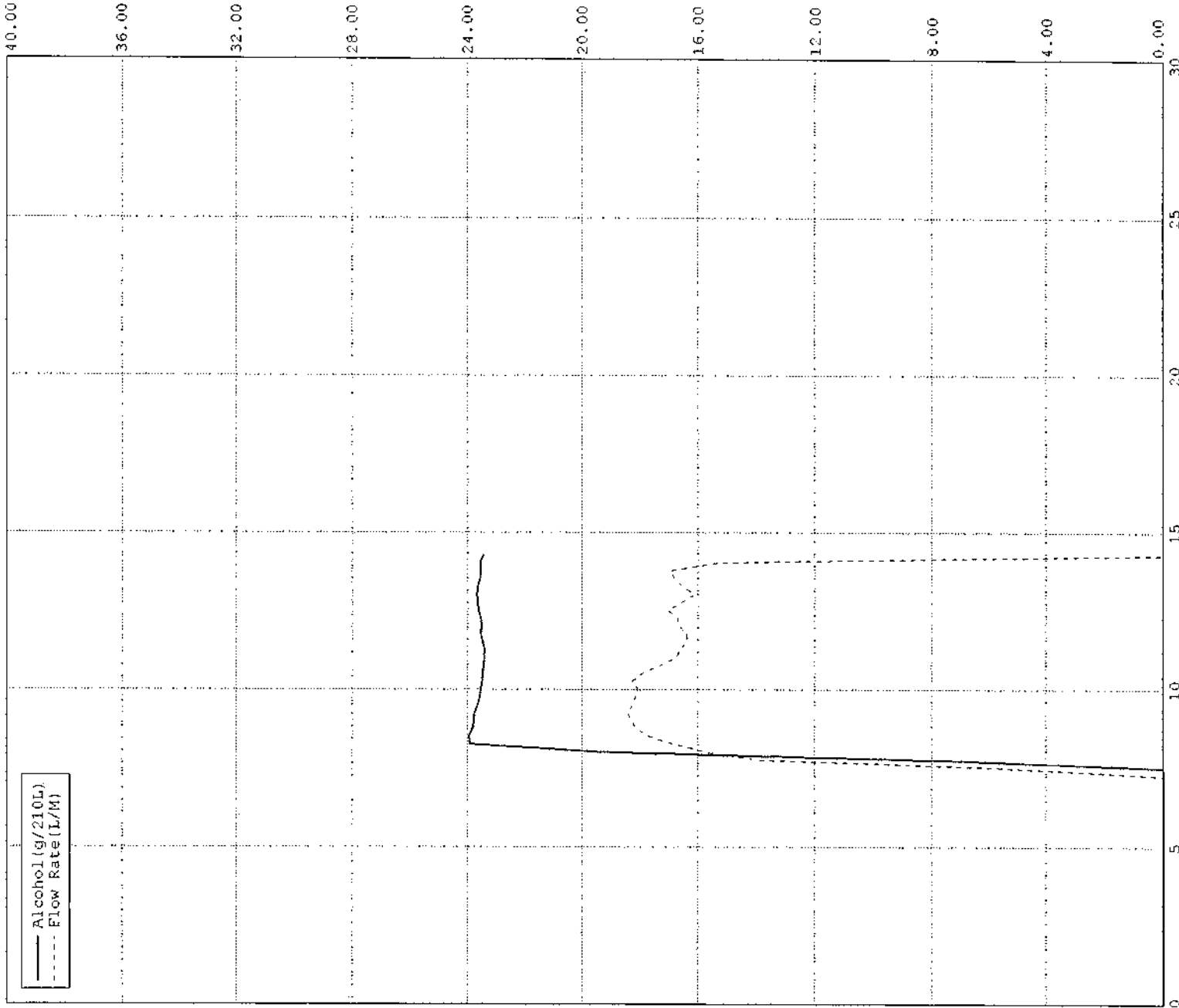
OPERATOR NAME:  
COLLEEN S OBRyant  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 14:01  
BLANK TEST 0.000 14:01  
INTERNAL STANDARD VERIFIED 14:01  
Xq = 0.090 (0.19%)  
EXTERNAL STANDARD 0.078 14:02  
X[1] = 0.0788 (0.0013) (0.0030)  
BLANK TEST 0.000 14:03  
SUBJECT SAMPLE INTERFERENCE 14:03  
X[1] = 0.1176 (-0.0228) (0.0019)





SUBJECT TEST

Alaska Department of Public Safety  
DAYMASTER dnt: 100692

Date: 12/17/2014  
Time: 14:08:25

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEGATIVE

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

DEPT/AGENCY:  
AAA1

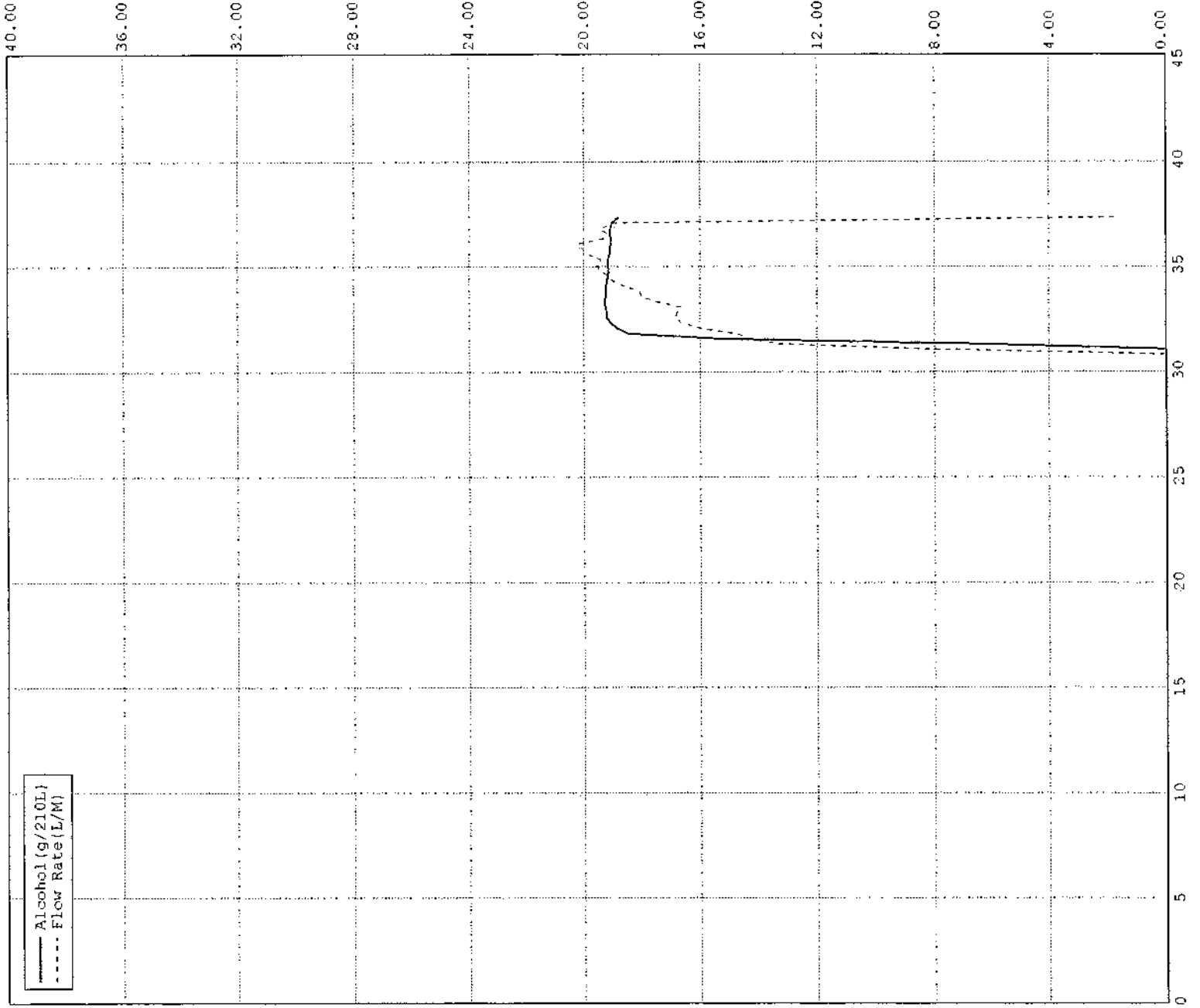
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	14:09
BLANK TEST	0.000	14:09
INTERNAL STANDARD	VERIFIED	14:09
Xq = 0.091 (0.00%)		
EXTERNAL STANDARD	0.079	14:10
X[1] = 0.0790 (0.0021) (0.0031)		
BLANK TEST	0.000	14:10
SUBJECT SAMPLE (Vol=1.82L)	0.095	14:11
X[1] = 0.0952 (0.0009) (0.0018)		
BLANK TEST	0.000	14:12
EXTERNAL STANDARD	0.078	14:12
X[1] = 0.0785 (0.0009) (0.0023)		
BLANK TEST	0.000	14:13

Filter 2 avg = 0.0014  
Filter 3 avg = 0.0028





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100692

Date: 12/17/2014  
Time: 14:36:04

SUBJECT NAME:  
TEST TEST  
LICENSE #: NON-DRINKING

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

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: 09214080A2  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	14:37
BLANK TEST	0.000	14:37
INTERNAL STANDARD	VERIFIED	14:37
EXTERNAL STANDARD	0.078	14:37
BLANK TEST	0.000	14:38
SUBJECT SAMPLE	0.000	14:38
BLANK TEST	0.000	14:39
EXTERNAL STANDARD	0.079	14:39
BLANK TEST	0.000	14:40

