

## Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 6/11/2014  
Effective: 6/11/2014

Version: DMCEF 2014 R0  
Status: Active

Instrument S/N 100669 Analyst Colleen O'Bryan Start Date 6/19/14

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 1.5 L (1.3L to 1.7L)

5. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf I/mo Lot 00813020A1 Exp 3/1/15
- ii. 0.040g/210L Mnf I/mo Lot 00813040A2 Exp 3/1/15
- iii. 0.080g/210L Mnf I/mo Lot 22612080A1 Exp 9/1/14
- iv. 0.100g/210L Mnf I/mo Lot 00813100A3 Exp 3/1/15
- v. 0.200g/210L Mnf Guth Lot 12120 Exp 8/10/14
  1. Simulator S/N DR4176 Date Calibrated 11/1/13
- vi. 0.300g/210L Mnf Guth Lot 13080 Exp 3/19/15
  1. Simulator S/N DR4163 Date Calibrated 11/4/13

6. Functional Tests (attached)

- a. Incomplete   
c. Interference

b. Invalid

- i. Acetone - Mnf Guth Lot 12120 Level 0.200 Exp 8/10/14
  1. Simulator S/N DR4162 Date Calibrated 11/1/13
- ii. Isopropanol - Mnf Guth Lot 13010 Level 0.100 Exp 1/9/15
  1. Simulator S/N DR6267 Date Calibrated 11/5/13
- iii. Negative Control - Mnf Guth Lot 13010 Level 0.100 Exp 1/9/15
  1. Simulator S/N DR4174 Date Calibrated 11/5/13

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

End Date 6/19/14

## DIAGNOSTIC RECORD

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

Date: 06/19/2014  
Time: 08:52:57

## VERSIONS

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

## TEMPERATURES

Sample Chamber = 48.9°C            PASSED  
Breath Tube     = 45.8°C           PASSED

## PUMP INFO

Flow Rate = 5.286 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: 100669  
-----

Date: 06/19/2014

Time: 9:20 AM

Temperatures (°C)

Sample Cell: 49.2°C

Breath Tube: 45.4°C

Current Barometer 29.6 in

Volume (Ltr) 1.54

Settings

Lamp: 1.69 V

Bias: 80 V

Cooler: 1.43 V

Chopper: 538 Hz

Voltages (V)

Flow: 1.06 V

Detector: 0.028 V

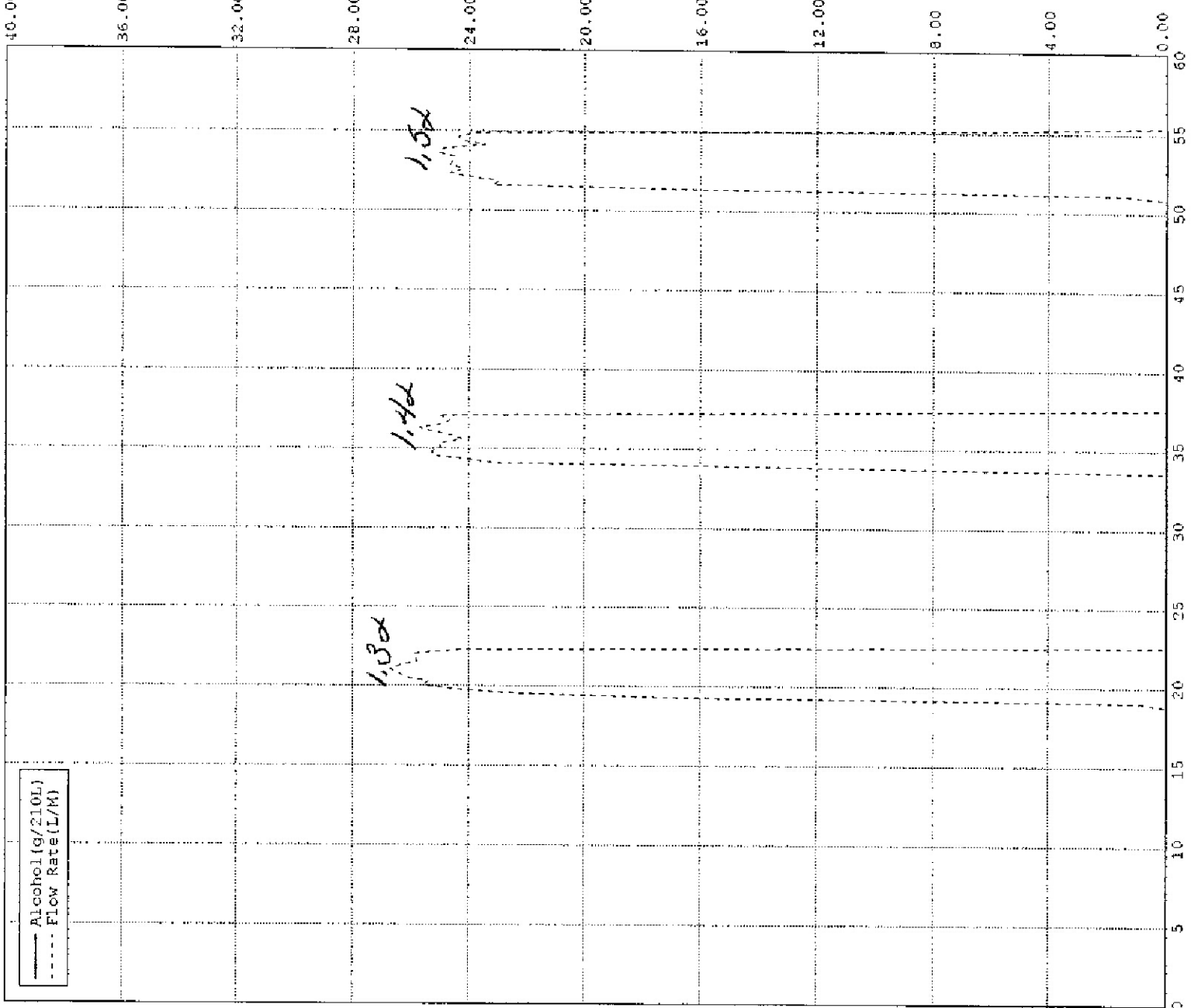
CALIBRATION FACTORS

-----  
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

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



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 06/19/2014  
Time: 13:10:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

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

DEPT/AGENCY:  
AAA1

CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.64: 0.079  
LOT #: 22612080A1  
EXPIRATION: 09/01/2014

DIAGNOSTIC CHECK	PASSED	13:13
BLANK TEST	0.000	13:13
INTERNAL STANDARD	VERIFIED	13:13
EXTERNAL STANDARD	0.080	13:14
BLANK TEST	0.000	13:15
SUBJECT SAMPLE	0.000	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.080	13:17
BLANK TEST	0.000	13:18

*CLS*

LINEARITY CHECK

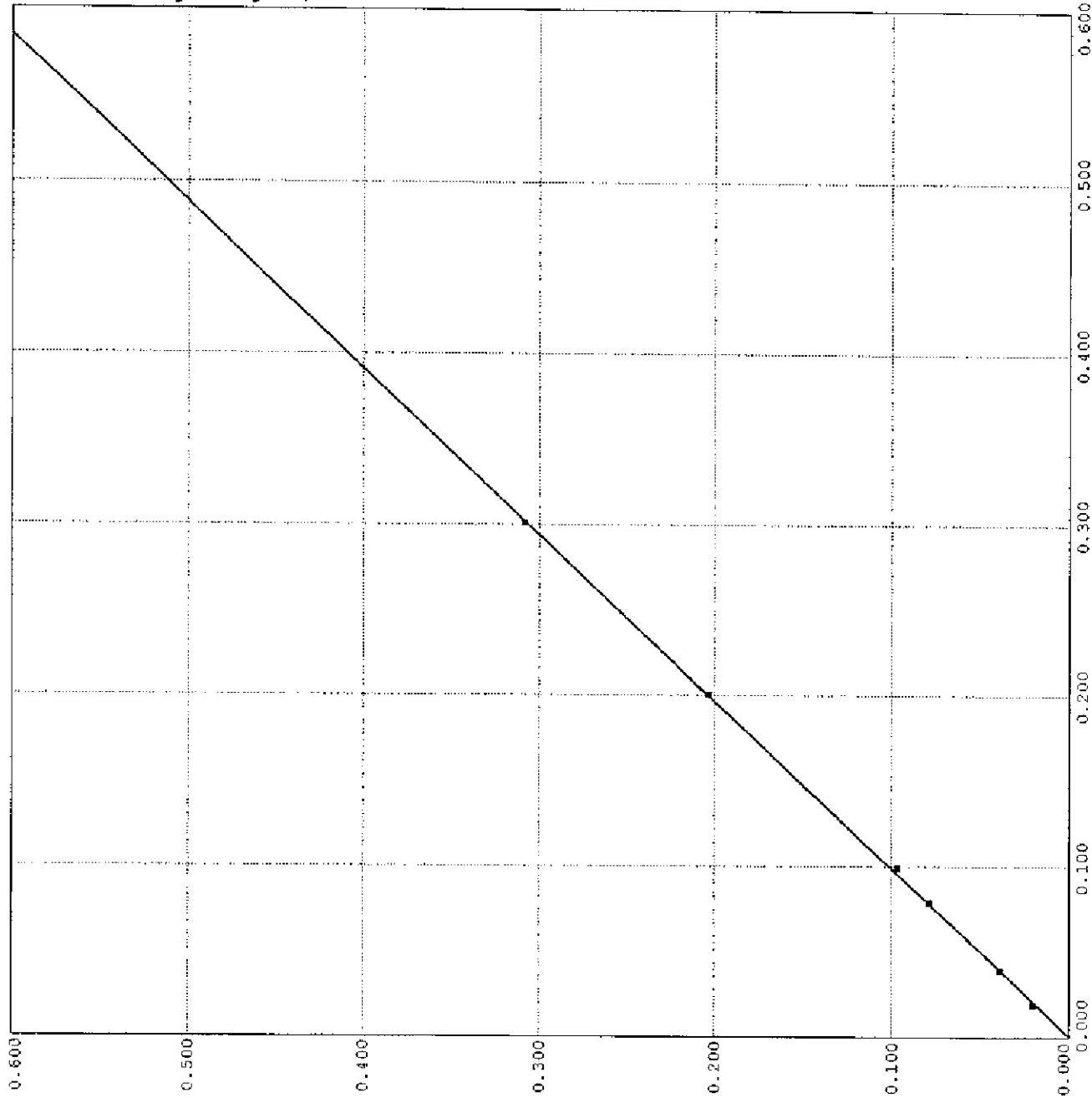
Alaska Department of Public Safety  
 DATAMASTER dnt: 100669

Date: 06/19/2014  
 Time: 09:32:20

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0211	0.0002
0.039	0.0401	0.0002
0.079	0.0801	0.0002
0.099	0.0977	0.0003
0.200	0.2041	0.0003
0.300	0.3091	0.0006

SLOPE = 1.027992  
 R<sup>2</sup> = 0.999677



CAS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

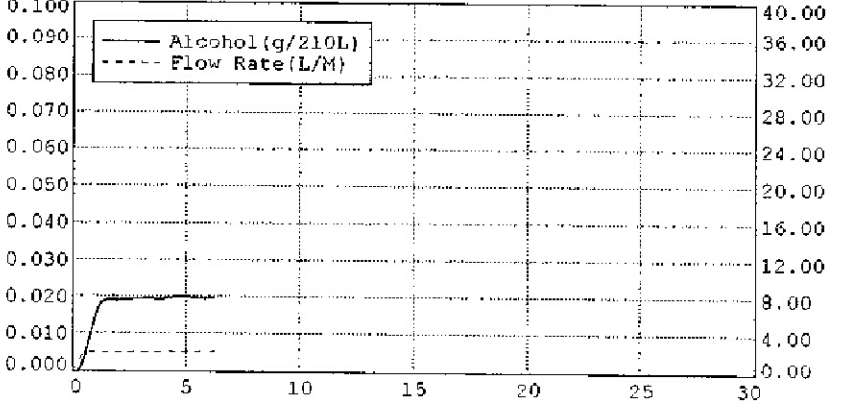
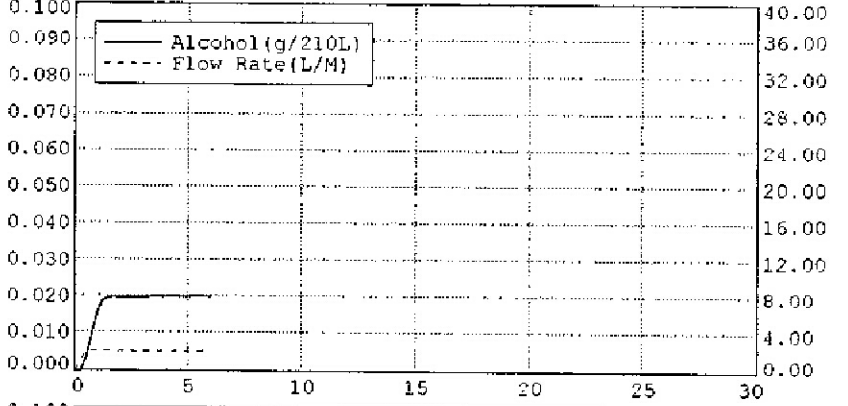
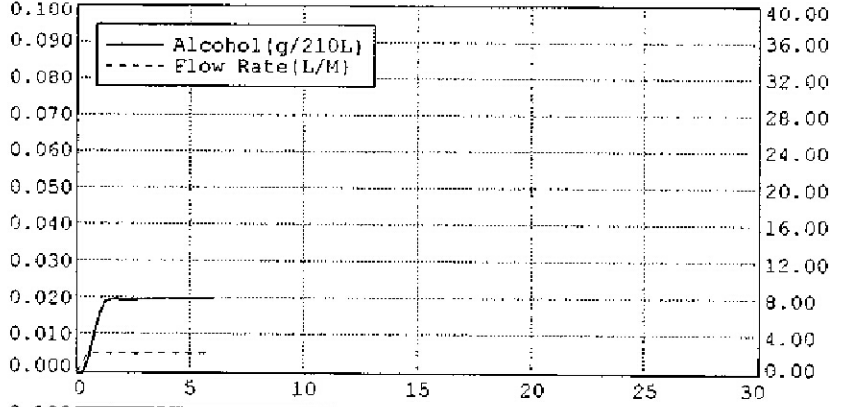
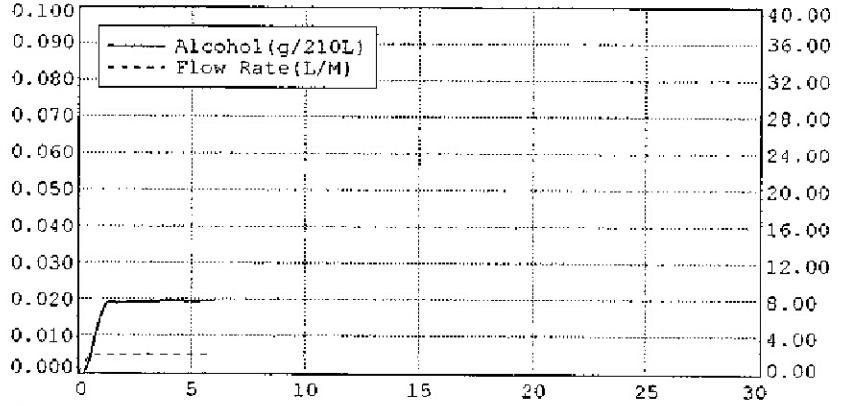
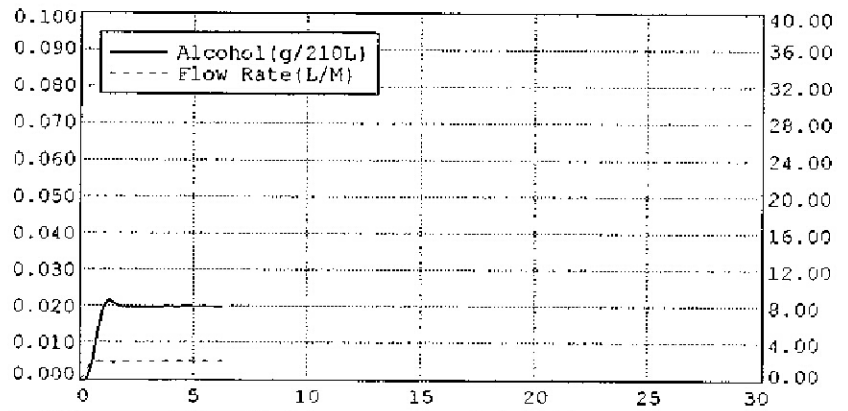
Date: 06/19/2014  
 Time: 09:32:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.63: 0.019  
 LOT #: 00813020A1  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:38
INTERNAL STANDARD	VERIFIED	09:39
EXTERNAL STANDARD	0.021	09:39
BLANK TEST	0.000	09:40
EXTERNAL STANDARD	0.021	09:40
BLANK TEST	0.000	09:41
EXTERNAL STANDARD	0.021	09:41
BLANK TEST	0.000	09:42
EXTERNAL STANDARD	0.021	09:42
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.020	09:43
BLANK TEST	0.000	09:44

Average = 0.0211  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

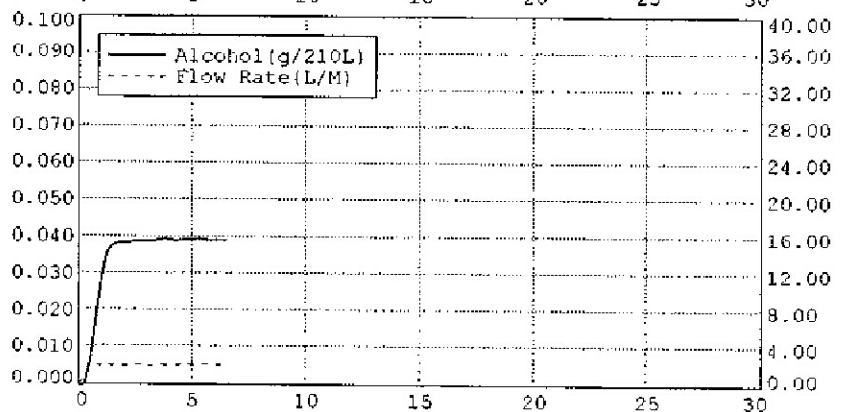
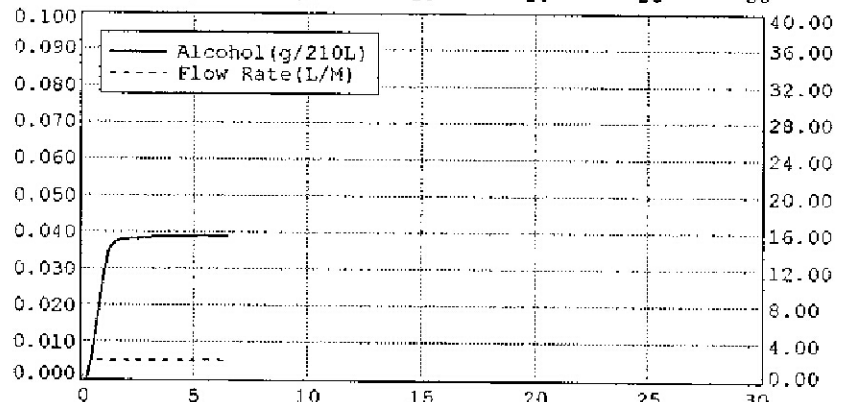
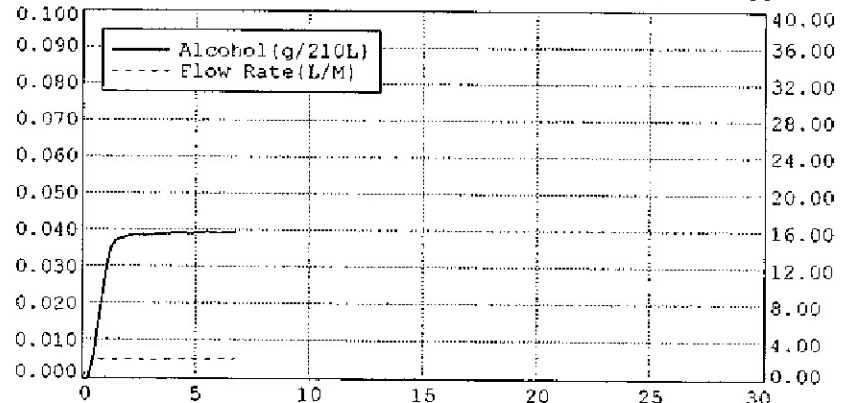
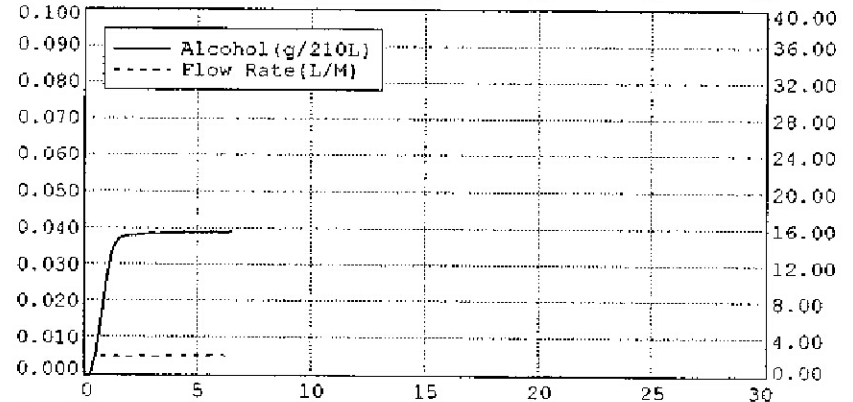
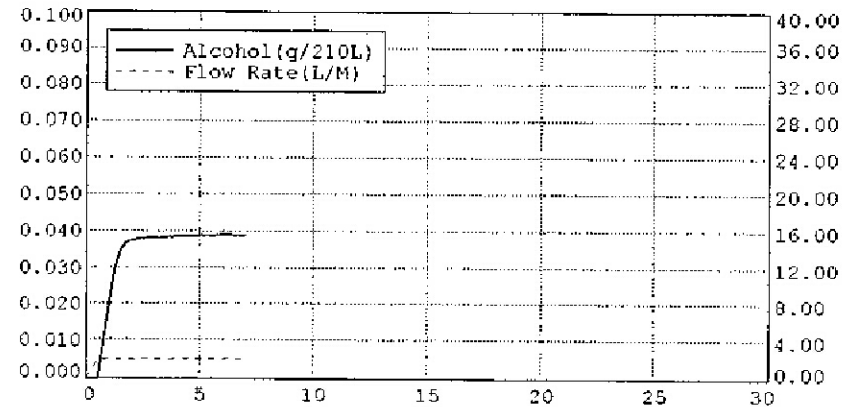
Date: 06/19/2014  
 Time: 09:46:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.63: 0.039  
 LOT #: 00813040A2  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:48
INTERNAL STANDARD	VERIFIED	09:48
EXTERNAL STANDARD	0.039	09:49
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.039	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.040	09:51
BLANK TEST	0.000	09:52
EXTERNAL STANDARD	0.040	09:52
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.040	09:53
BLANK TEST	0.000	09:54

Average = 0.0401  
 Std Dev = 0.0002





LINEARITY CHECK: Control Test 3

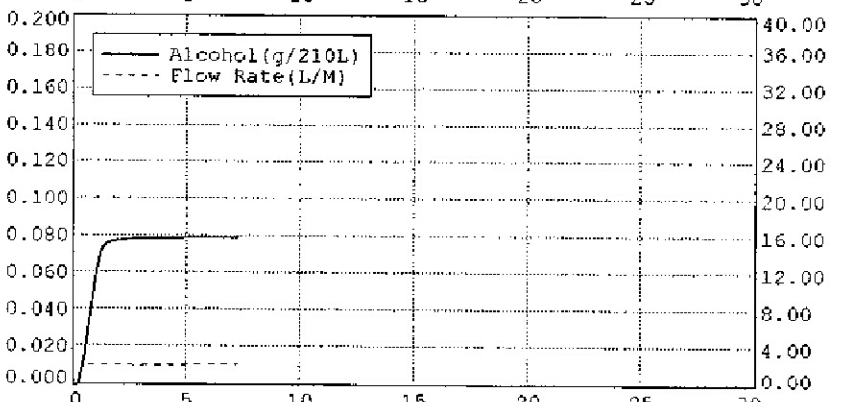
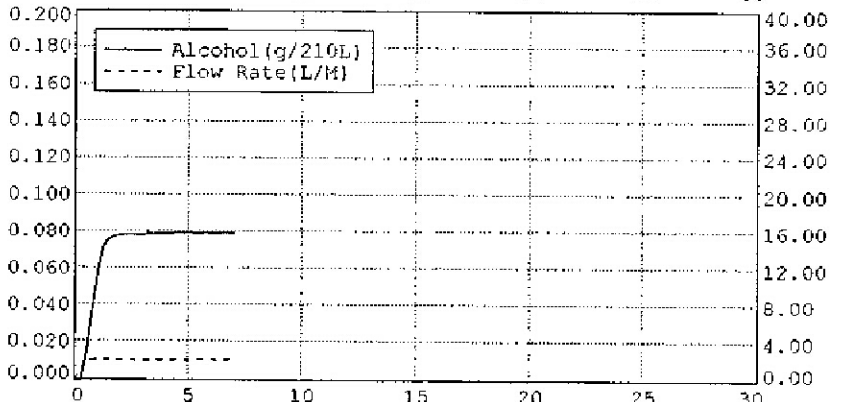
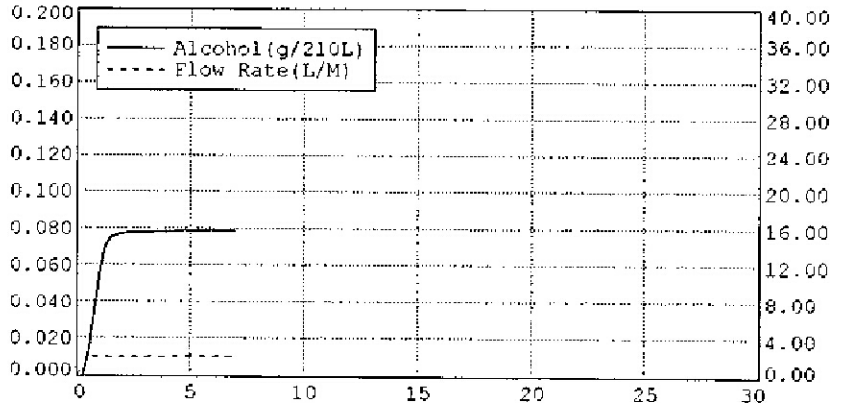
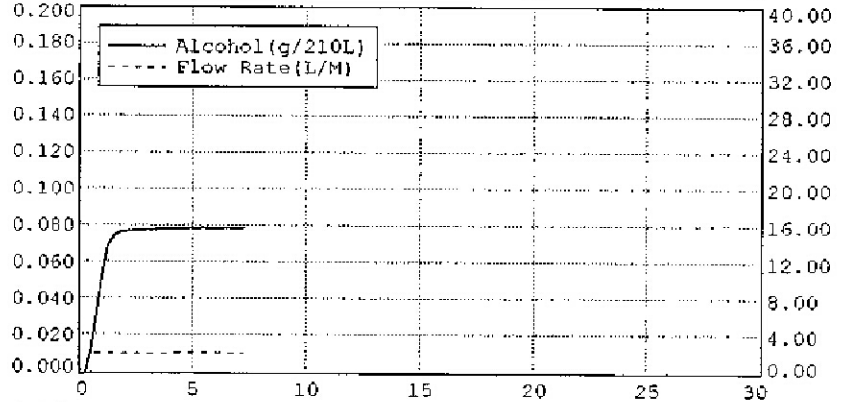
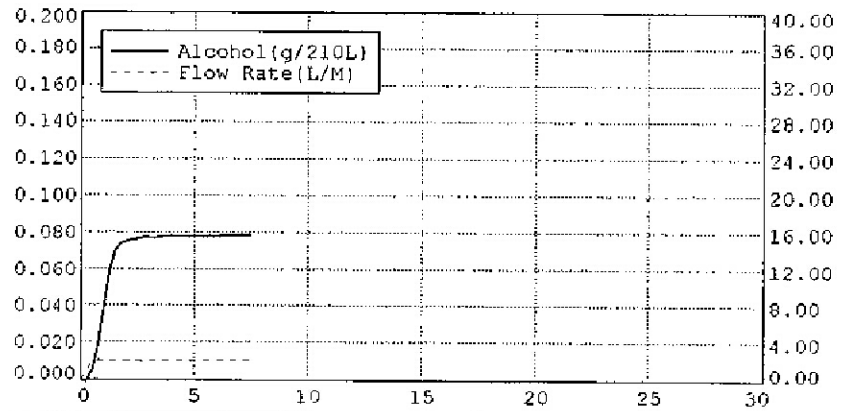
Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

Date: 06/19/2014  
 Time: 09:55:17

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.63: 0.079  
 LOT #: 22612080A1  
 EXPIRATION: 09/01/2014

BLANK TEST	0.000	09:57
INTERNAL STANDARD	VERIFIED	09:57
EXTERNAL STANDARD	0.079	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.079	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.080	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.080	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.080	10:01
BLANK TEST	0.000	10:02

Average = 0.0801  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

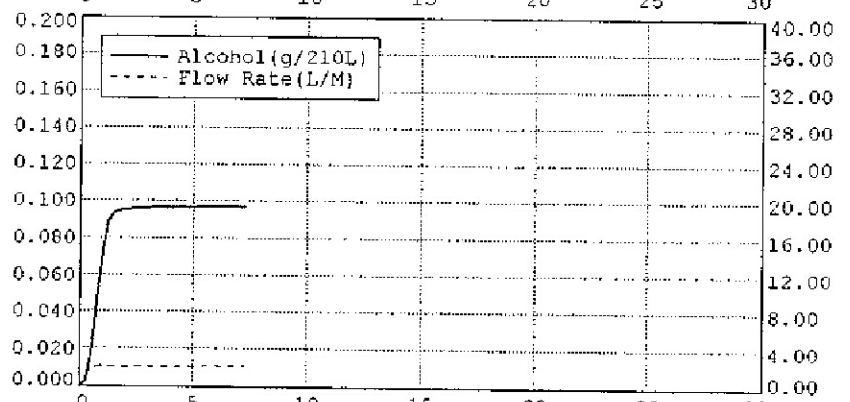
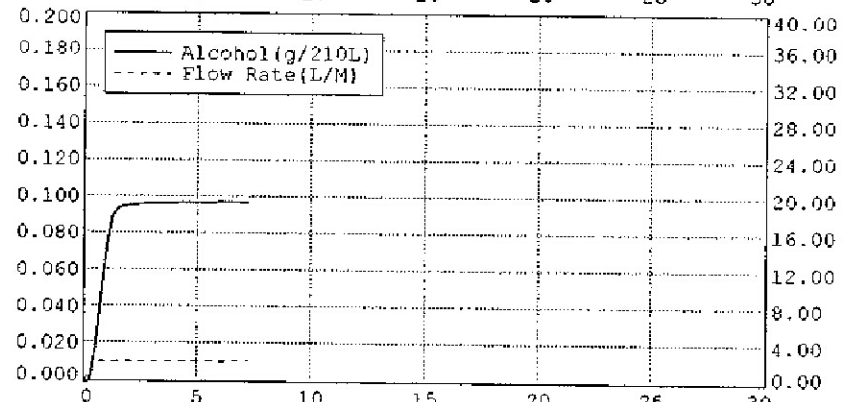
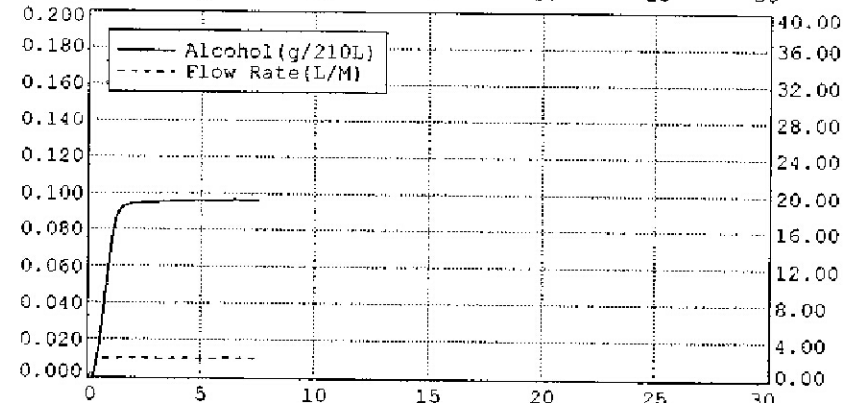
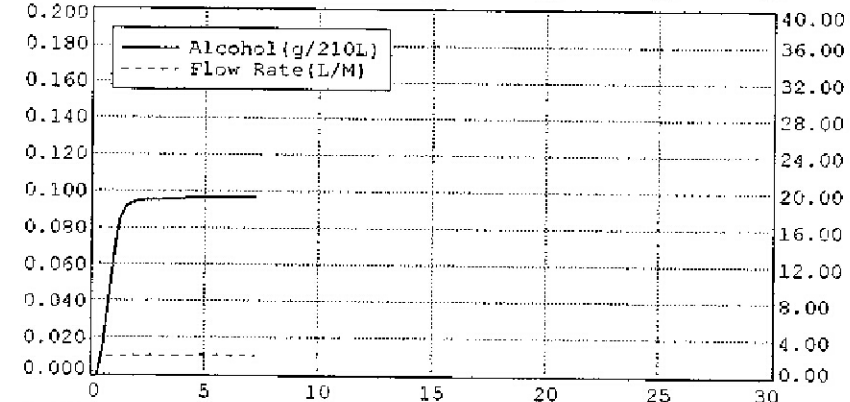
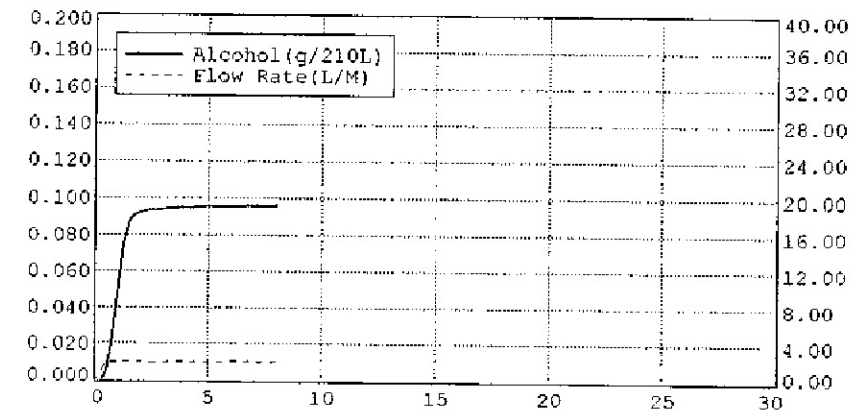
Date: 06/19/2014  
 Time: 10:40:40

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.63: 0.099  
 LOT #: 00813100A3  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	10:42
INTERNAL STANDARD	VERIFIED	10:42
EXTERNAL STANDARD	0.097	10:42
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.097	10:43
BLANK TEST	0.000	10:44
EXTERNAL STANDARD	0.097	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.097	10:45
BLANK TEST	0.000	10:46
EXTERNAL STANDARD	0.098	10:46
BLANK TEST	0.000	10:47

Average = 0.0977  
 Std Dev = 0.0003



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

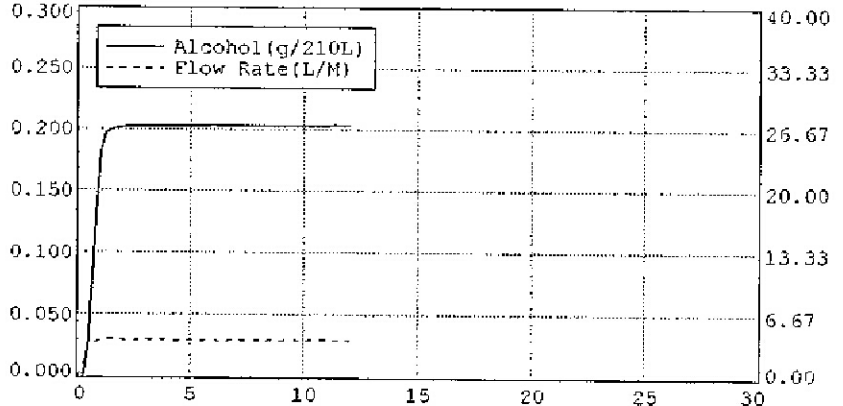
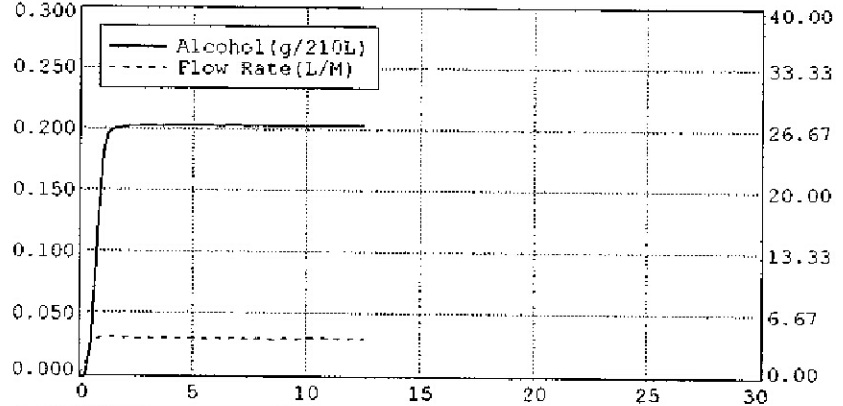
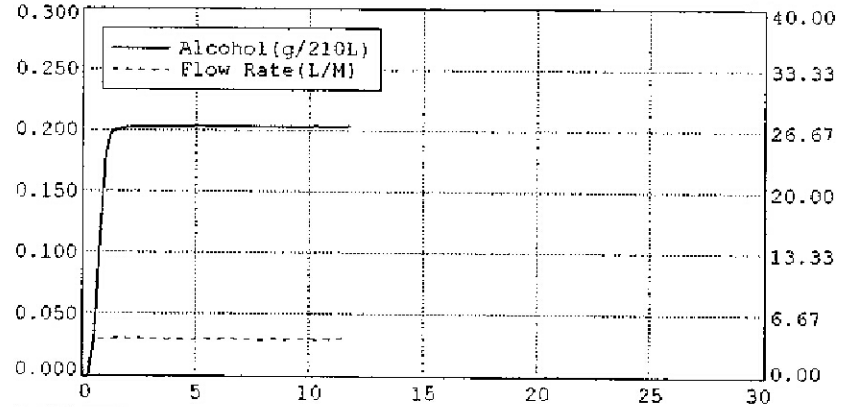
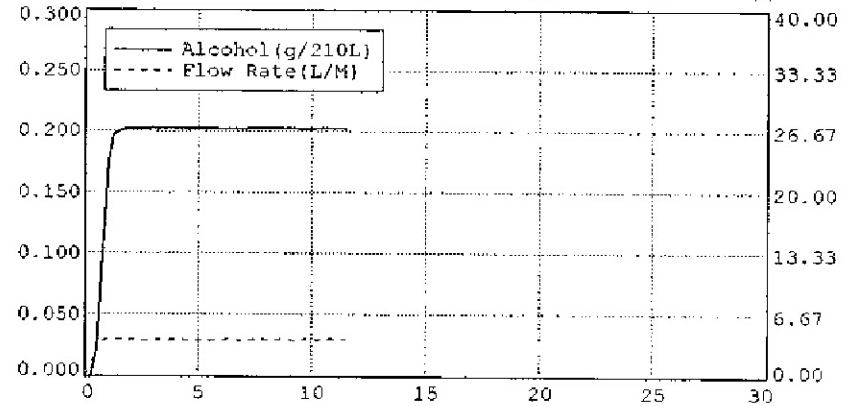
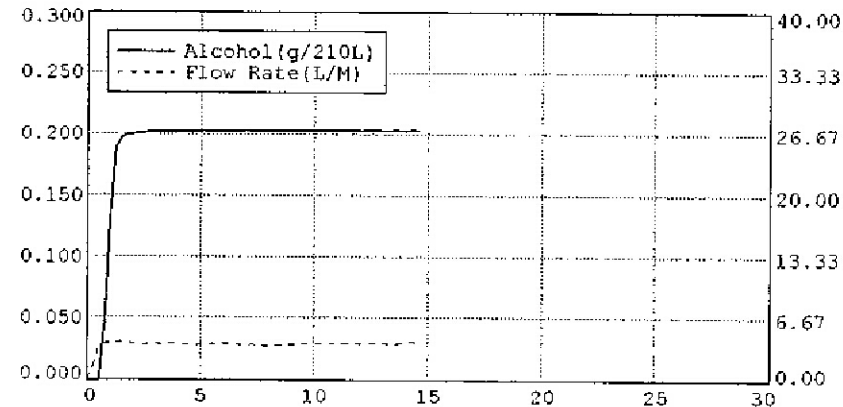
Date: 06/19/2014  
 Time: 10:49:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 12120  
 EXPIRATION: 08/10/2014

BLANK TEST	0.000	10:50
INTERNAL STANDARD	VERIFIED	10:50
EXTERNAL STANDARD	0.204	10:51
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.203	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.204	10:53
BLANK TEST	0.000	10:54
EXTERNAL STANDARD	0.203	10:54
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.204	10:55
BLANK TEST	0.000	10:56

Average = 0.2041  
 Std Dev = 0.0003



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100669

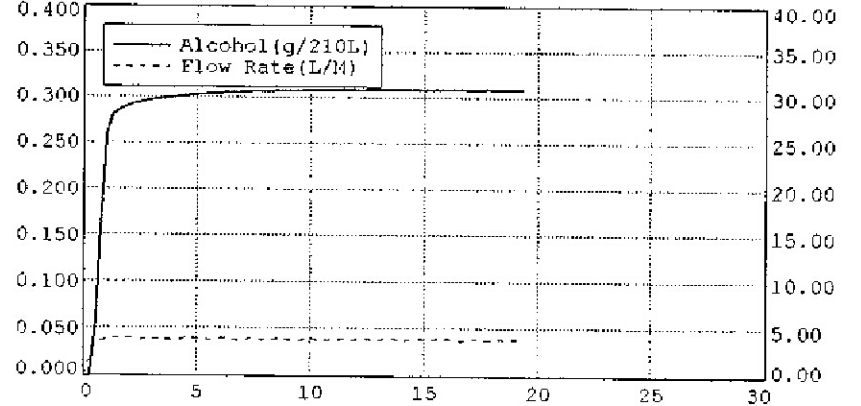
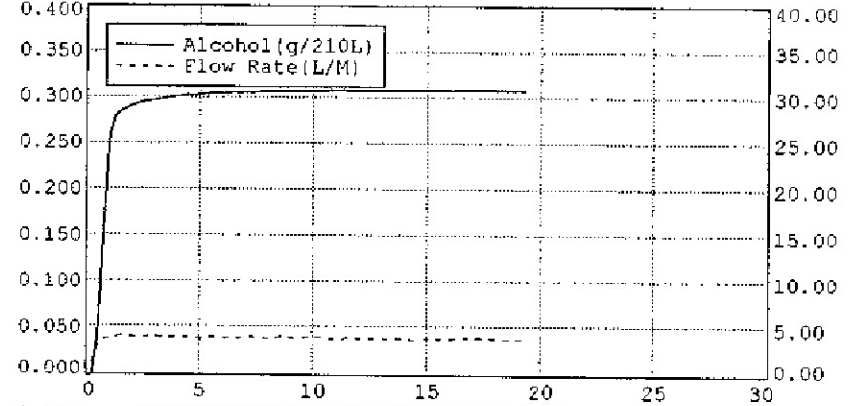
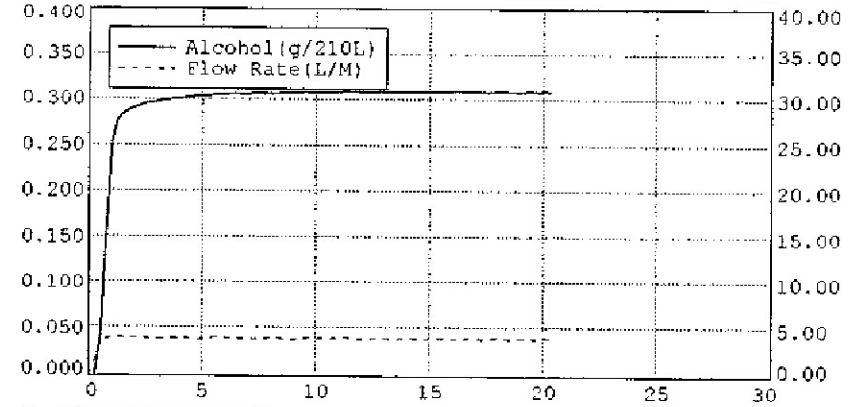
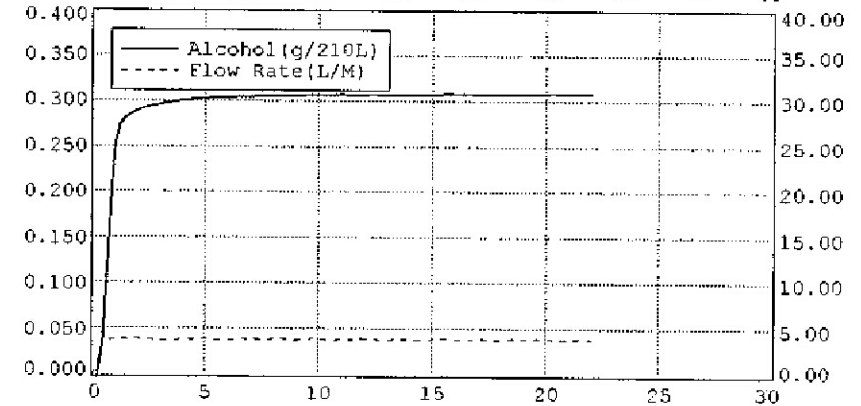
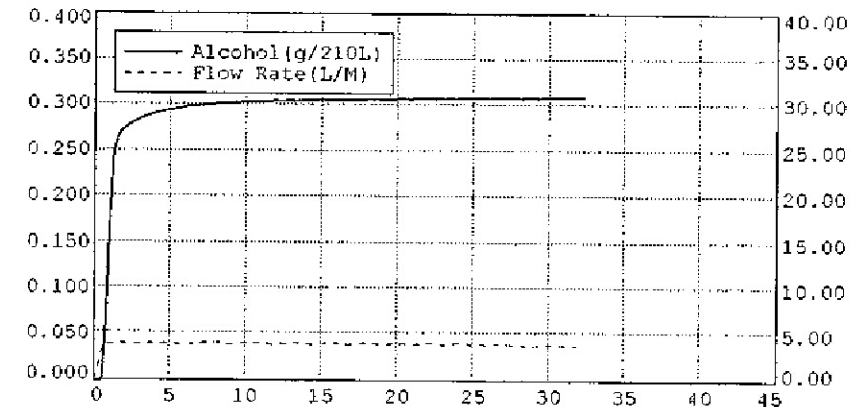
Date: 06/19/2014  
 Time: 12:51:28

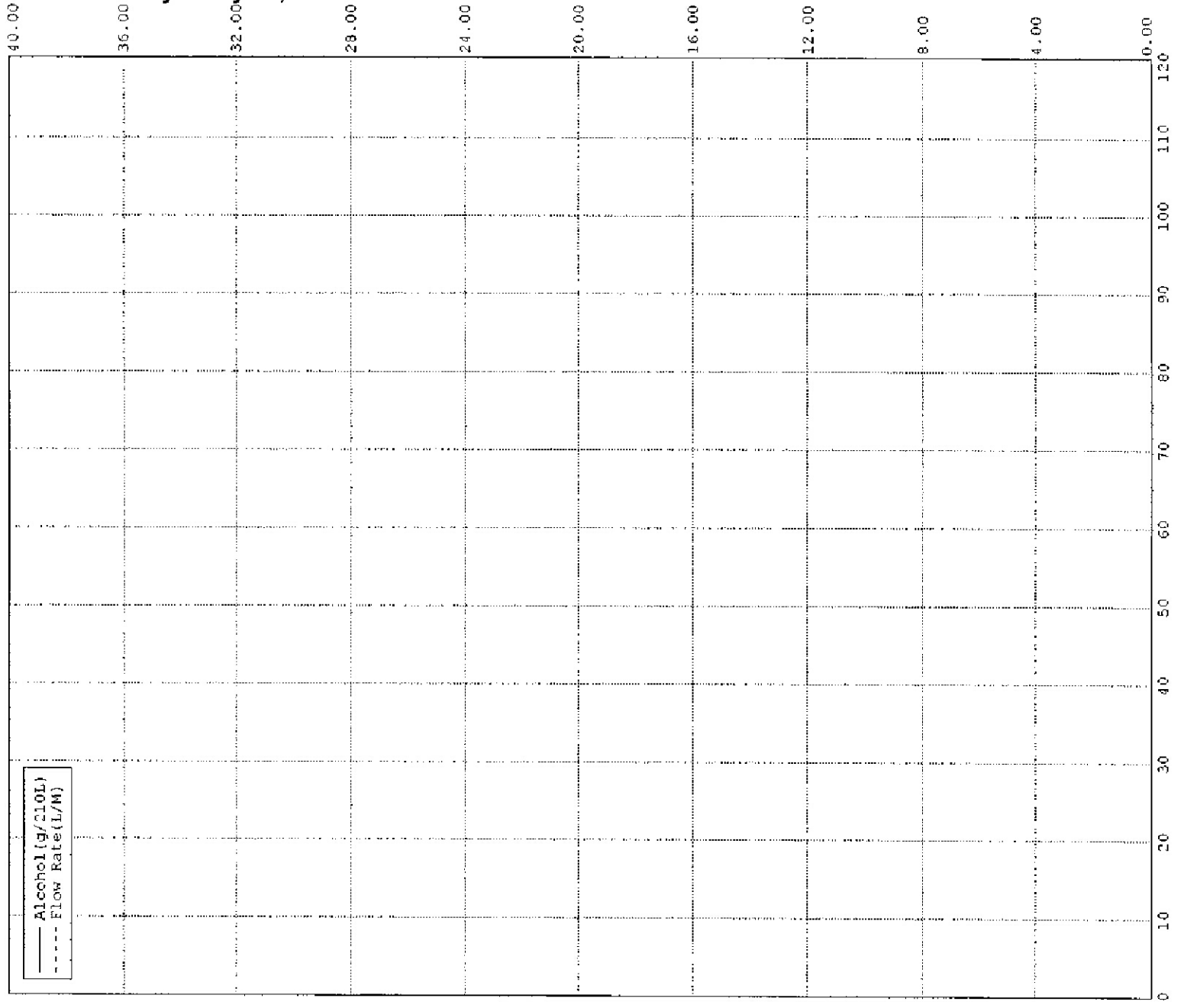
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 13080  
 EXPIRATION: 03/19/2015

BLANK TEST	0.000	12:52
INTERNAL STANDARD	VERIFIED	12:52
EXTERNAL STANDARD	0.308	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.309	12:54
BLANK TEST	0.000	12:55
EXTERNAL STANDARD	0.309	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.309	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.309	12:59
BLANK TEST	0.000	12:59

Average = 0.3091  
 Std Dev = 0.0006





**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dnt: 100669  
 -----  
 Date: 06/19/2014  
 Time: 13:42:40

**SUBJECT NAME:**  
**TEST TEST**  
**LICENSE #:** INCOMPLETE

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

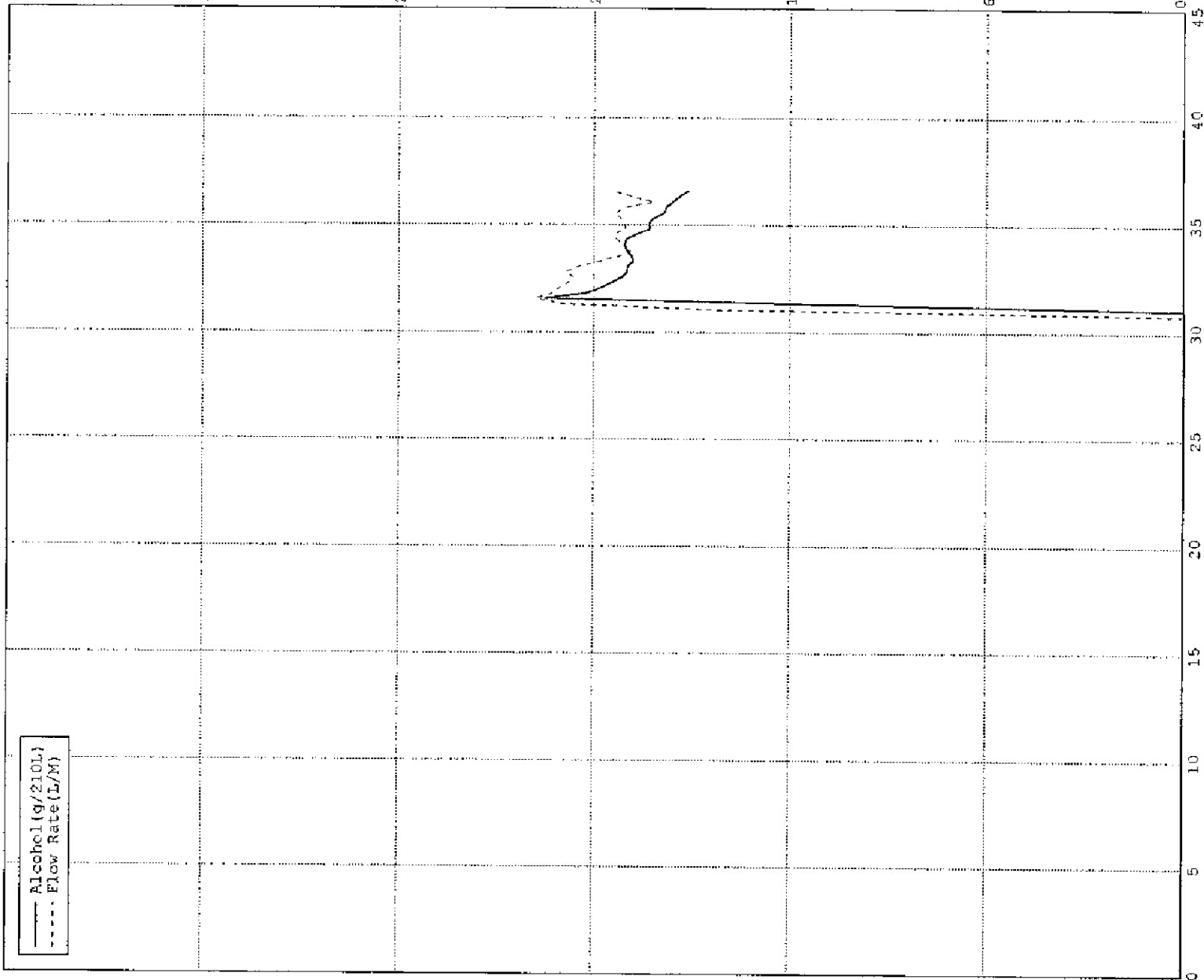
**DEPT/AGENCY:**  
 AAAA

**CASE/REPORT:** 14-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.62: 0.079  
 LOT #: 22612080A1  
 EXPIRATION: 09/01/2014

**DIAGNOSTIC CHECK** PASSED 13:43  
**BLANK TEST** 0.000 13:43  
**INTERNAL STANDARD** VERIFIED 13:43  
**EXTERNAL STANDARD** 0.079 13:44  
**BLANK TEST** 0.000 13:45  
**SUBJECT SAMPLE** INCOMPLETE 13:47

*COB*



**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100669  
 -----  
 Date: 06/19/2014  
 Time: 13:48:55

**SUBJECT NAME:**  
**TEST TEST**  
**LICENSE #:** INVALID

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

**DEPT/AGENCY:**  
 AAAA

**CASE/REPORT:** 14-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.62: 0.079  
 LOT #: 22612080A1  
 EXPIRATION: 09/01/2014

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	13:50
BLANK TEST	0.000	13:50
INTERNAL STANDARD	VERIFIED	13:50
EXTERNAL STANDARD	0.080	13:51
BLANK TEST	0.000	13:52
SUBJECT SAMPLE	INVALID	13:52

*COB*

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100669

Date: 06/19/2014  
Time: 13:55:13

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-ACETONE

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

DEPT/AGENCY:  
AAA1

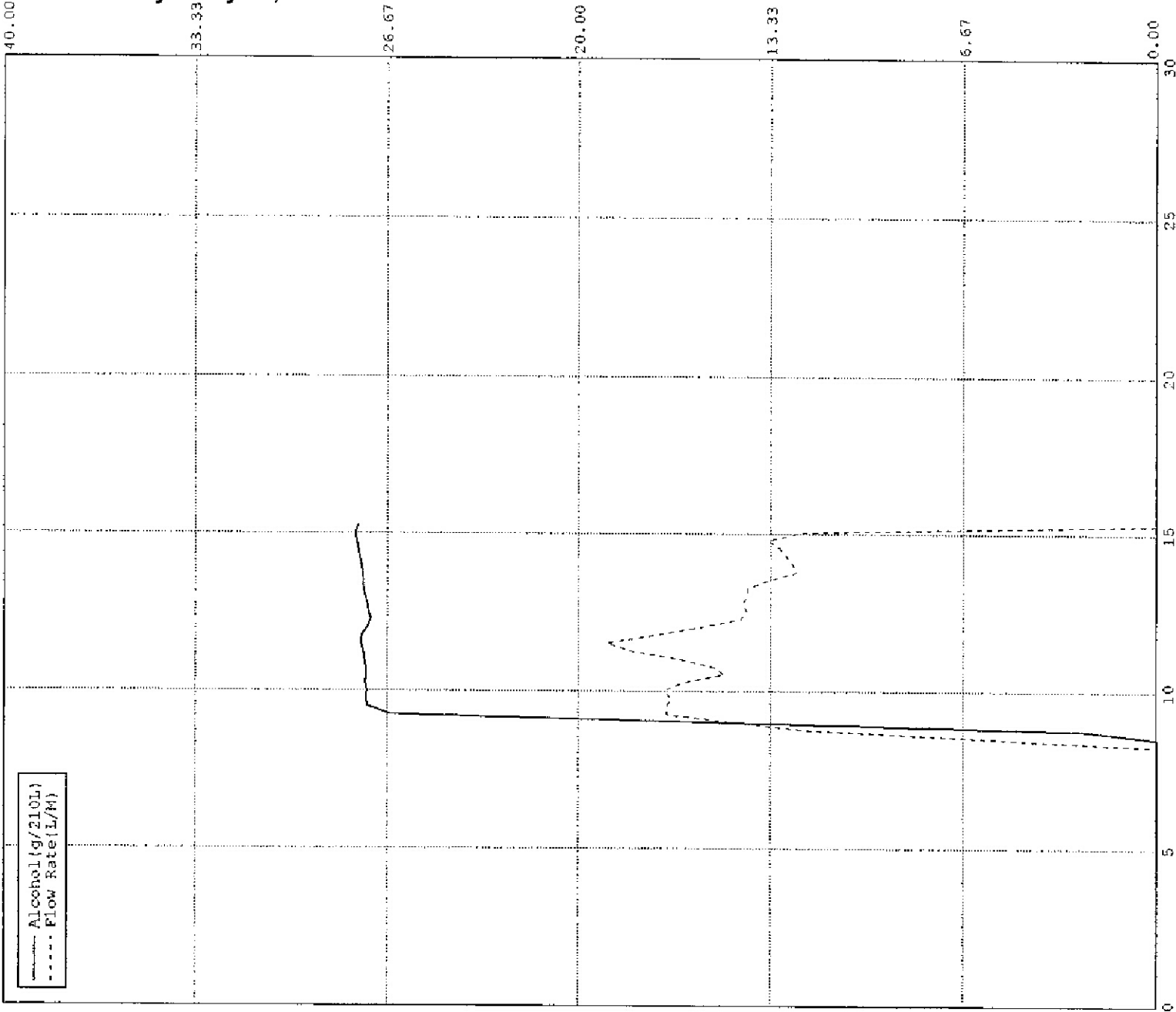
CASE/REPORT: 14-1234  
TEST TYPE: TEST

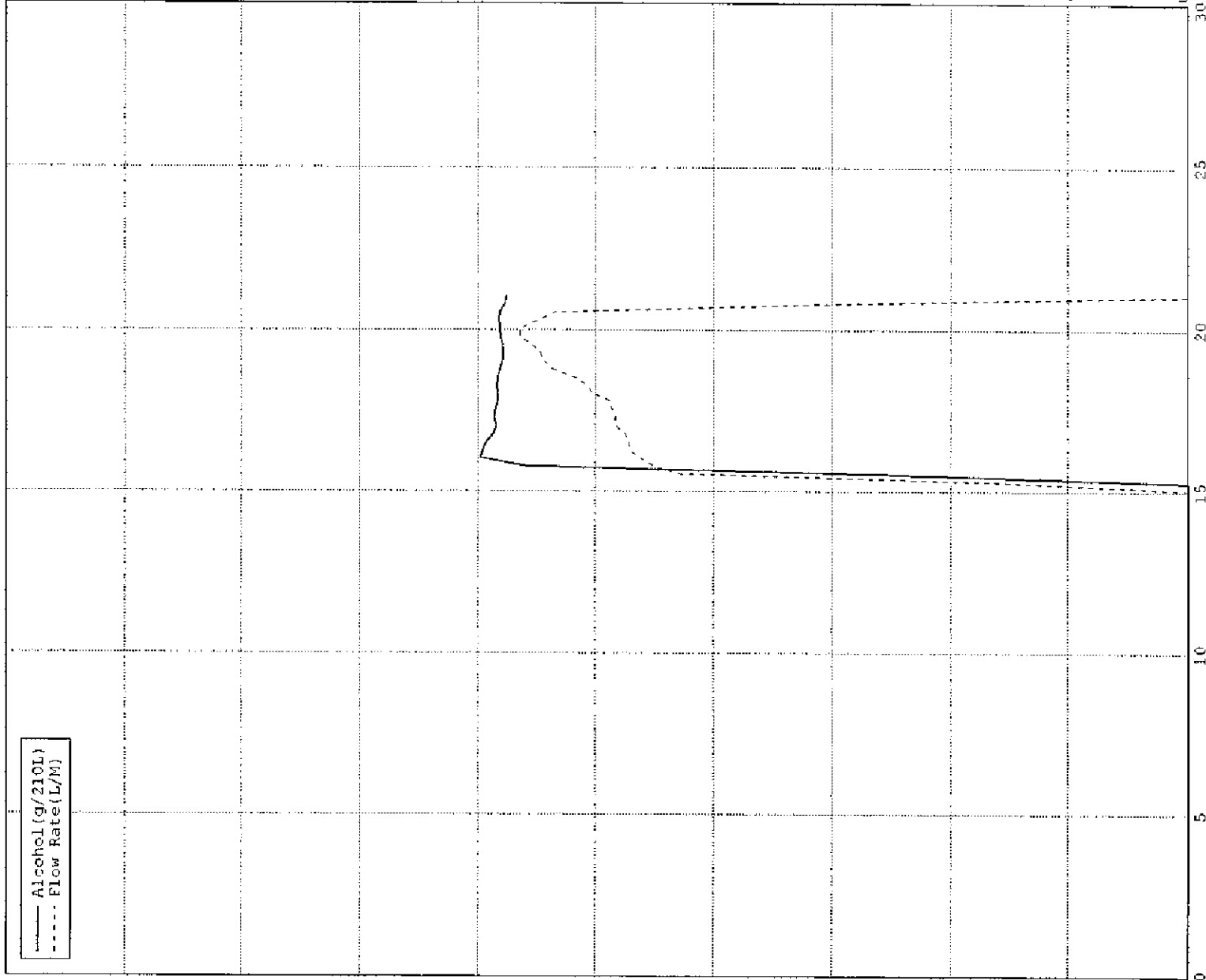
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.62: 0.079  
LOT #: 22612080A1  
EXPIRATION: 09/01/2014

DIAGNOSTIC CHECK	PASSED	13:57
BLANK TEST	0.000	13:57
INTERNAL STANDARD	VERIFIED	13:57
Xq = 0.086 (0.30%)		
EXTERNAL STANDARD	0.080	13:57
X[1] = 0.0803 (0.0009)	(0.0007)	
BLANK TEST	0.000	13:58
SUBJECT SAMPLE	INTERFERENCE	13:59
X[1] = 0.2074 (-0.0168)	(0.0033)	

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





SUBJECT TEST

-----  
 Alaska Department of Public Safety  
 DATAMASTER dnt: 100669  
 -----  
 Date: 06/19/2014  
 Time: 14:03:16

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INT-IPA

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

DEPT/AGENCY:  
 AAA1

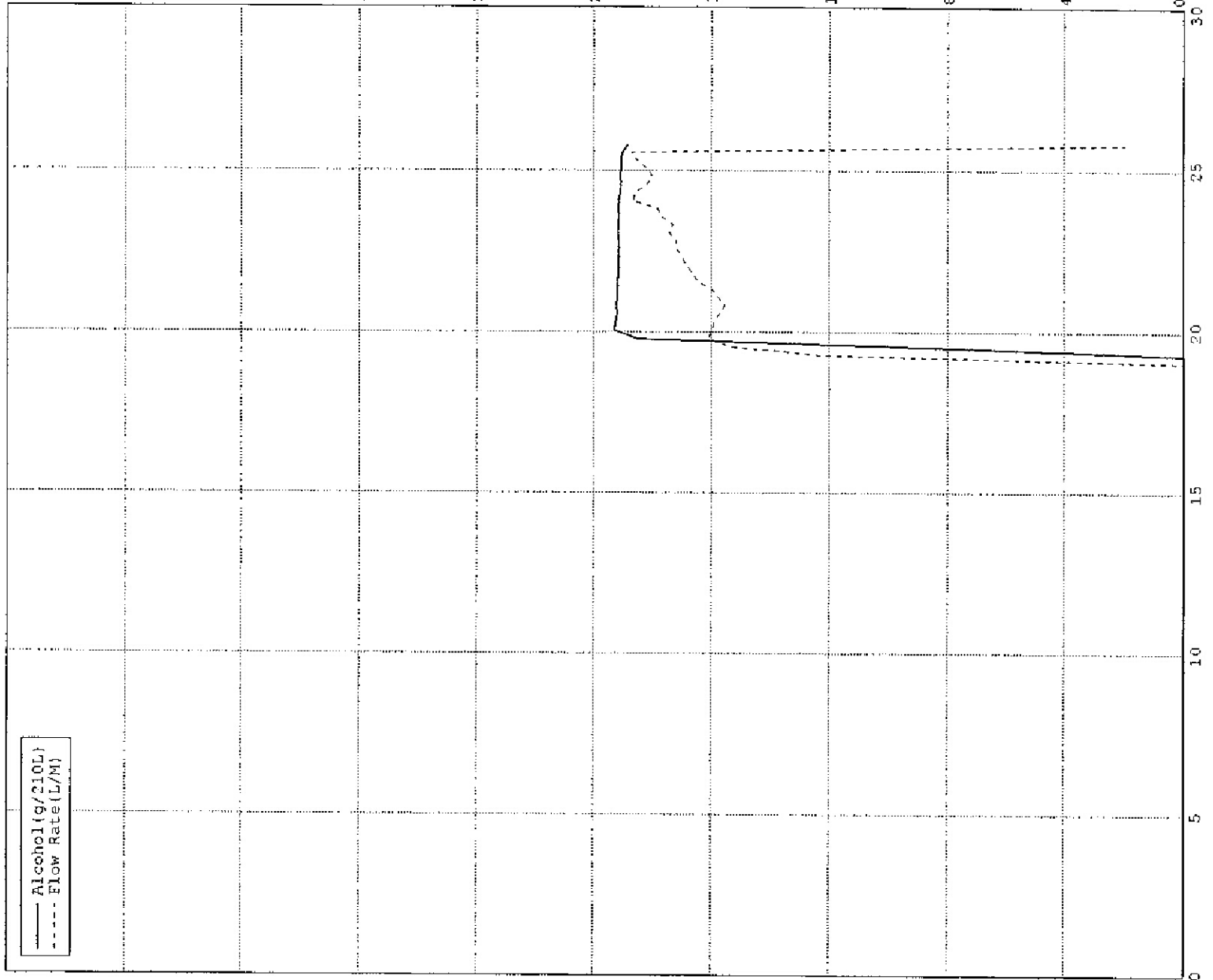
CASE/REPORT: 14-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.60: 0.079  
 LOT #: 22612080A1  
 EXPIRATION: 09/01/2014

DIAGNOSTIC CHECK	PASSED	14:04
BLANK TEST	0.000	14:04
INTERNAL STANDARD	VERIFIED	14:04
Xq = 0.085 (0.51%)		
EXTERNAL STANDARD	0.080	14:05
X[1] = 0.0801 (0.0014) (0.0009)		
BLANK TEST	0.000	14:06
SUBJECT SAMPLE	INTERFERENCE	14:06
X[1] = 0.1155 (-0.0256) (-0.0007)		

*CS*





**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100669  
 -----  
 Date: 06/19/2014  
 Time: 14:19:36

**SUBJECT NAME:**  
**TEST TEST**  
**LICENSE #:** INT-NEG

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

**DEPT/AGENCY:**  
 AAAA1

**CASE/REPORT:** 14-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.61: 0.079  
 LOT #: 22612080AL  
 EXPIRATION: 09/01/2014

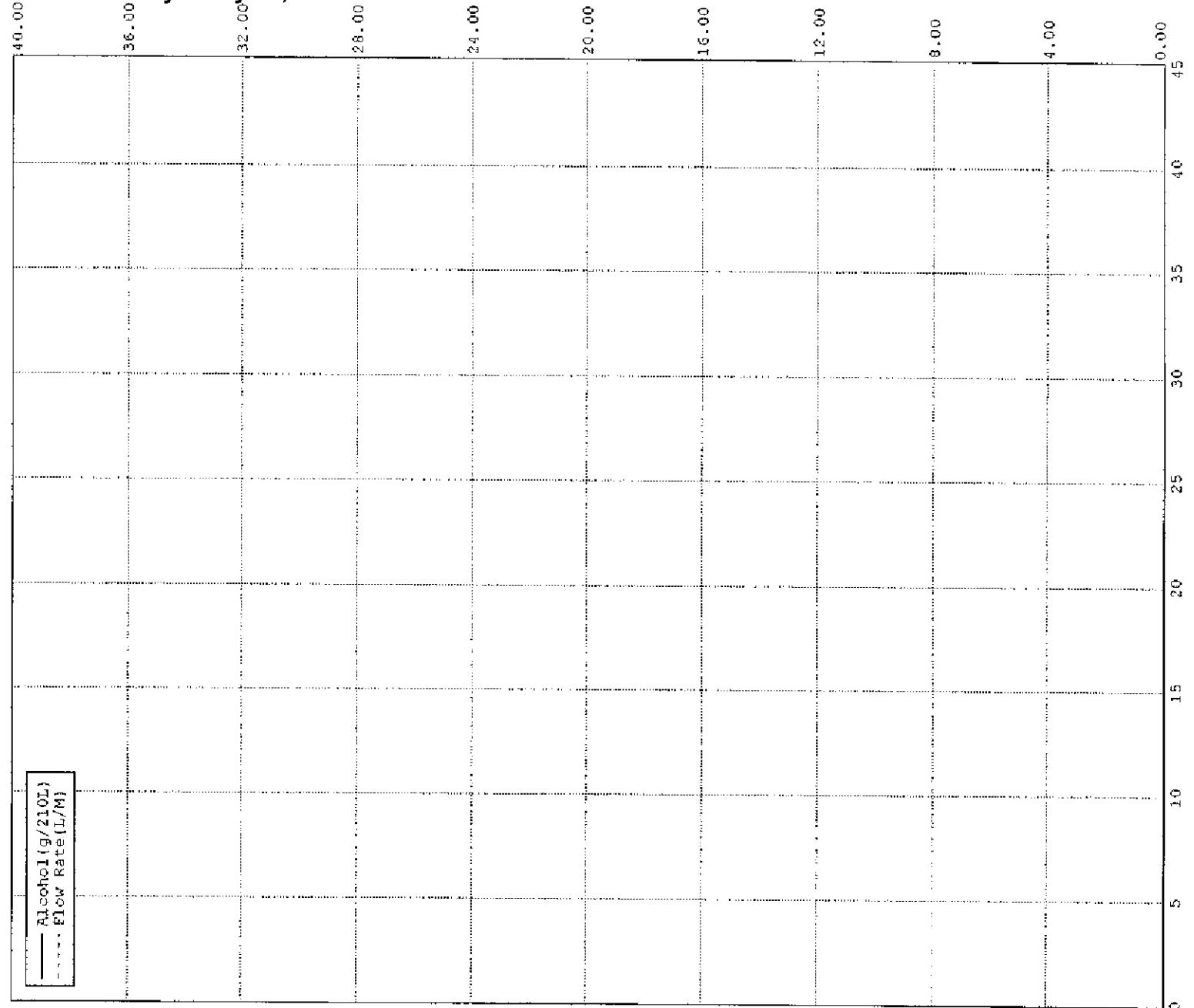
DIAGNOSTIC CHECK	PASSED	14:20
BLANK TEST	0.000	14:20
INTERNAL STANDARD	VERIFIED	14:20
Xq = 0.085	(0.41%)	
EXTERNAL STANDARD	0.080	14:21
X[1] = 0.0804	(0.0012)	(0.0005)
BLANK TEST	0.000	14:22
SUBJECT SAMPLE (Vol=1.83L)	0.095	14:22
X[1] = 0.0954	(-0.0034)	(-0.0009)
BLANK TEST	0.000	14:23
EXTERNAL STANDARD	0.079	14:23
X[1] = 0.0797	(0.0006)	(0.0004)
BLANK TEST	0.000	14:24

*Filter 2 average - (0.0010)*

*Filter 3 average - (0.0006)*

*CSB*

— Alcohol (g/210L)  
 - - - - Flow Rate (L/M)



**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100669  
 -----  
 Date: 06/19/2014  
 Time: 14:55:24

**SUBJECT NAME:**  
**TEST TEST**  
**LICENSE #:** RFI

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

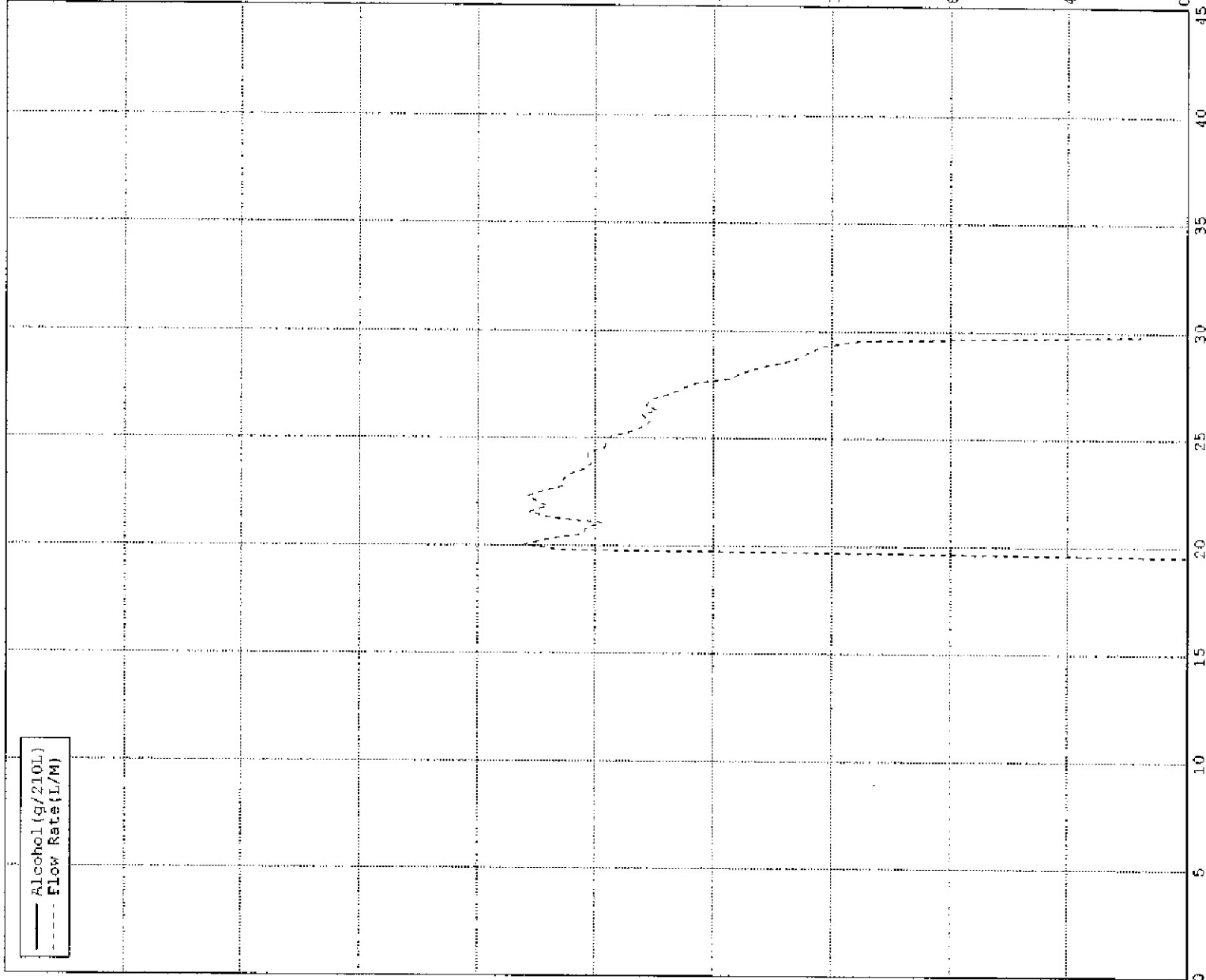
**DEPT/AGENCY:**  
 AAAA1

**CASE/REPORT:** 14-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.60: 0.079  
 LOT #: 22612080A1  
 EXPIRATION: 09/01/2014

**DIAGNOSTIC CHECK** PASSED 15:08  
 BLANK TEST 0.000 15:08  
**INTERNAL STANDARD** VERIFIED 15:08  
 EXTERNAL STANDARD 0.080 15:08  
 BLANK TEST 0.000 15:09

**RFI DETECTED**



**SUBJECT TEST**

-----  
 Alaska Department of Public Safety  
 DATAMASTER dmt: 100669  
 -----  
 Date: 06/19/2014  
 Time: 15:20:41

**SUBJECT NAME:**  
**TEST TEST**  
**LICENSE #:** NONDRINKING

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

**DEPT/AGENCY:**  
 AAAA1

**CASE/REPORT:** 14-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.60: 0.079  
 LOT #: 22612080A1  
 EXPIRATION: 09/01/2014

<b>DIAGNOSTIC CHECK</b>	PASSED	15:21
BLANK TEST	0.000	15:21
<b>INTERNAL STANDARD</b>	VERIFIED	15:21
EXTERNAL STANDARD	0.080	15:22
BLANK TEST	0.000	15:23
SUBJECT SAMPLE	0.000	15:23
BLANK TEST	0.000	15:24
EXTERNAL STANDARD	0.080	15:24
BLANK TEST	0.000	15:25

*COB*

Final page for report

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7/10/2014