

## Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 04/04/2012  
Effective: 04/04/2012

Version: DMCEF2012 R1  
Status: Active

Instrument S/N 100674 Analyst Colleen O'Bryant Start Date 12/9/13  
Diagnostic Test (attached)

## 1. Voltage Checks

- a. Adjust voltages, if needed
- i. Lamp (2.6V Maximum)
  - ii. Bias (80V)
  - 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 1500 mL (1.3L to 1.7L)

## 4. 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 11313080A1 Exp 6/1/15
  - iv. 0.100g/210L Mnf ILMO Lot 00818100A3 Exp 3/1/15
  - v. 0.200g/210L Mnf Guth Lot 12120 Exp 8/10/14
    - 1. Simulator S/N SD1088 Date Calibrated 1/23/13
  - vi. 0.300g/210L Mnf Guth Lot 13080 Exp 3/19/15
    - 1. Simulator S/N SD1198 Date Calibrated 1/23/13

## 5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- i. <sup>Neg. Ctrl</sup> Acetone - Mnf Guth Lot 13010 Level 0.100 Exp 1/9/15
    - 1. Simulator S/N SD1199 Date Calibrated 1/23/13
  - ii. Isopropanol - Mnf Guth Lot 13010 Level 0.100 Exp 1/9/15
    - 1. Simulator S/N SD1177 Date Calibrated 1/23/13
  - iii. <sup>Acetone</sup> Negative Control - Mnf Guth Lot 13010 Level 0.100 Exp 1/9/15
    - 1. Simulator S/N DR4161 Date Calibrated 1/24/13

d. RFI

6. Verify stylus is calibrated
7. Verify card reader is functional
8. Reset Options
9. Clear Memory
10. Verification of Calibration
11. Non-Drinking Subject Test (attached)
12. Upload
13. Update agency information and polling status in DM Host Calling Program

End Date 12/19/13

## DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100674  
-----

Date: 12/09/2013  
Time: 15:02:21

## VERSIONS

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

## TEMPERATURES

Sample Chamber = 49.0°C            PASSED  
Breath Tube     = 47.9°C            PASSED

## PUMP INFO

Flow Rate = 5.402 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: 100674  
-----

Date: 12/09/2013

Time: 3:23 PM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 46.9°C

Current Barometer 30.0 in

Volume (Ltr) 1.53

Settings

Lamp: 1.77 V

Bias: 80 V

Cooler: 1.83 V

Chopper: 539 Hz

Voltages (V)

Flow: 1.03 V

Detector: -0.007 V

## CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmc: 100674  
-----

Date: 05/16/2013  
Time: 07:20:44

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

Ca	=	0.1000			
CAL	=	0.978600	0.800	<=	CAL < 1.200
b1	=	0.0015	0.0000	<=	b1 < 0.0040
b2	=	0.0055	0.0010	<=	b2 < 0.0100
b3	=	0.0006	0.0000	<=	b3 < 0.0040
Xq	=	0.1049	0.0500	<=	Xq < 0.2000
a21	=	1.116940	1.050	<=	a21 < 1.300
a31	=	0.416219	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
 DATABASE dnt: 100674

Date: 12/10/2013  
 Time: 08:17:03

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: VOLUME TEST

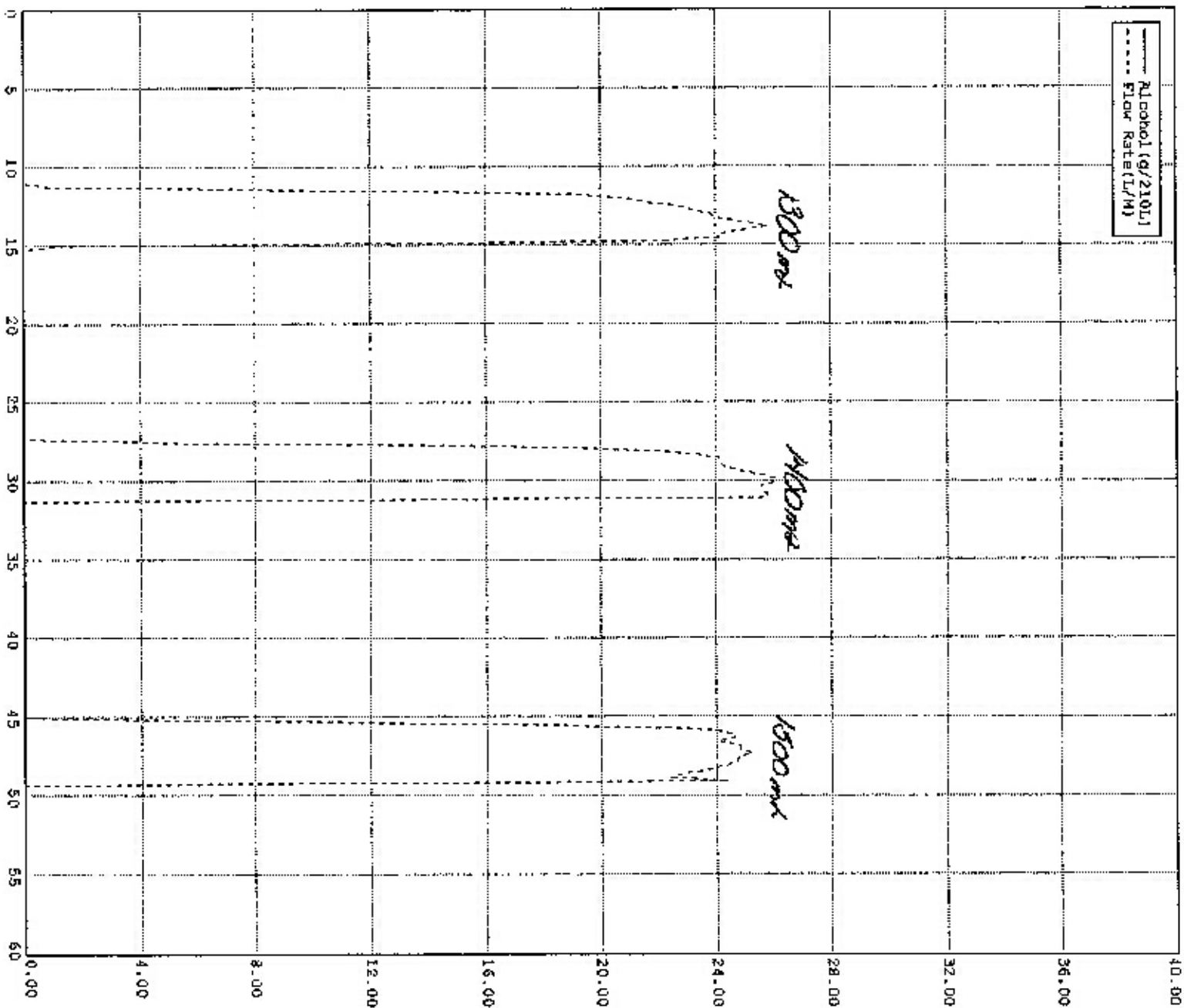
OPERATOR NAME:  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

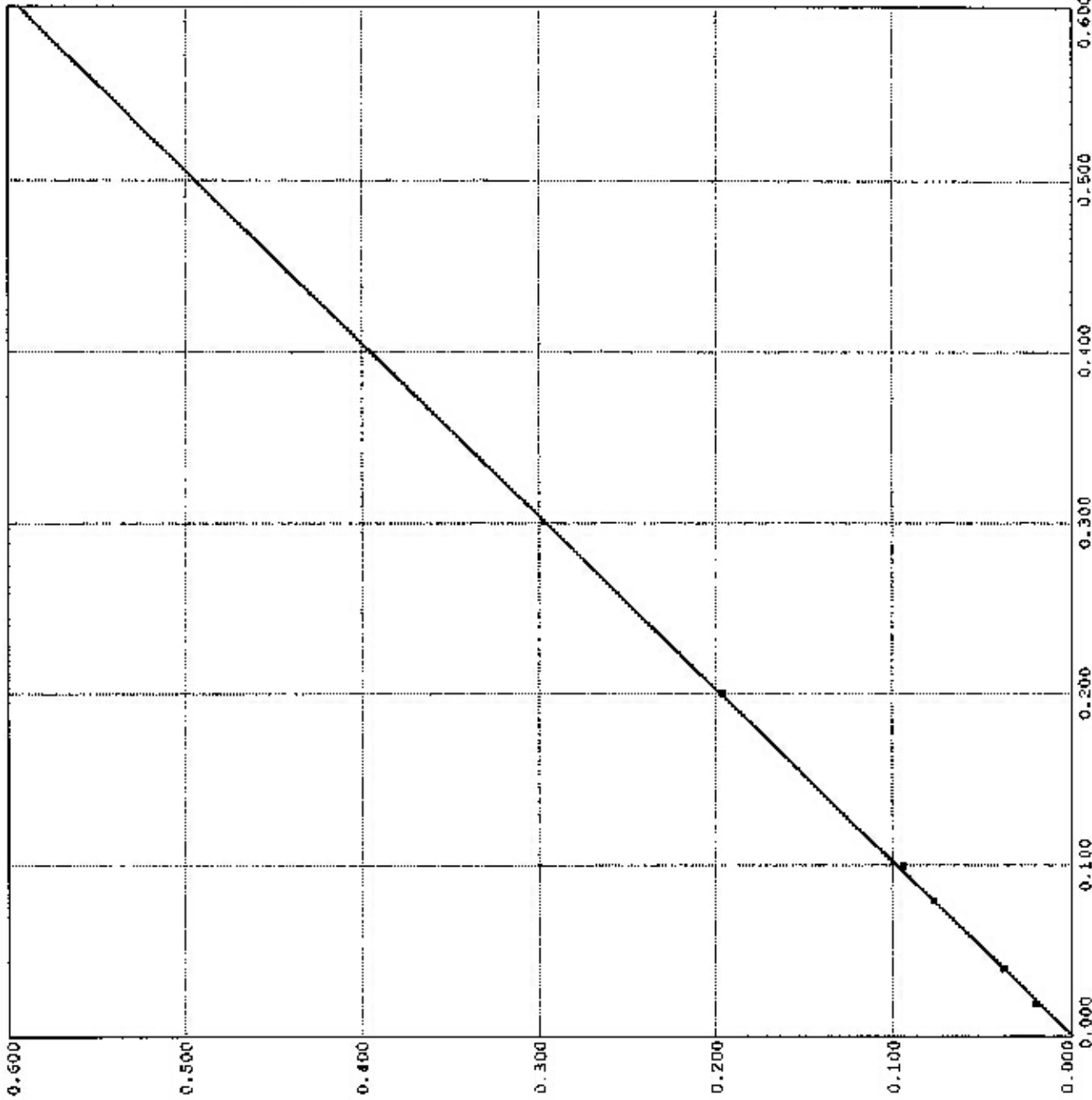
DEPT/AGENCY:  
 AAAI  
 CASE/REPORT: 13-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.84: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	08:18
BLANK TEST	0.000	08:18
INTERNAL STANDARD	VERIFIED	08:18
EXTERNAL STANDARD	0.078	08:18
BLANK TEST	0.000	08:19
SUBJECT SAMPLE	0.000	08:20
BLANK TEST	0.000	08:21
EXTERNAL STANDARD	0.078	08:21
BLANK TEST	0.000	08:22

*CS*





**LINEARITY CHECK**

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

Date: 12/10/2013  
 Time: 08:24:57

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0207	0.0002
0.039	0.0391	0.0001
0.079	0.0778	0.0003
0.099	0.0952	0.0002
0.200	0.1971	0.0005
0.300	0.2985	0.0003

SLOPE = 0.990910  
 R² = 0.999742

*COB*



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

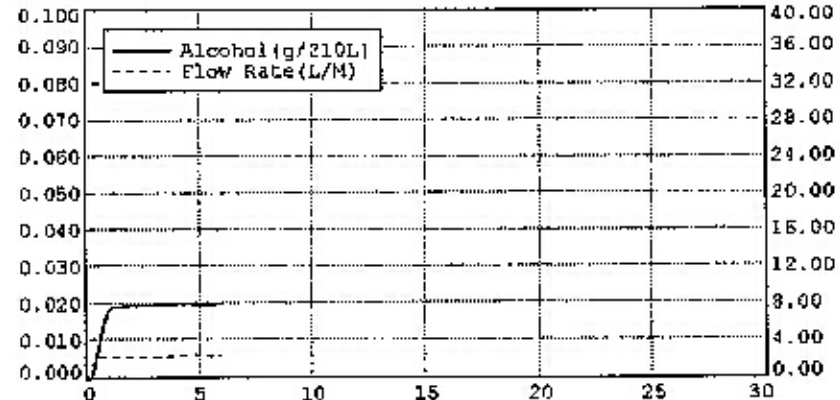
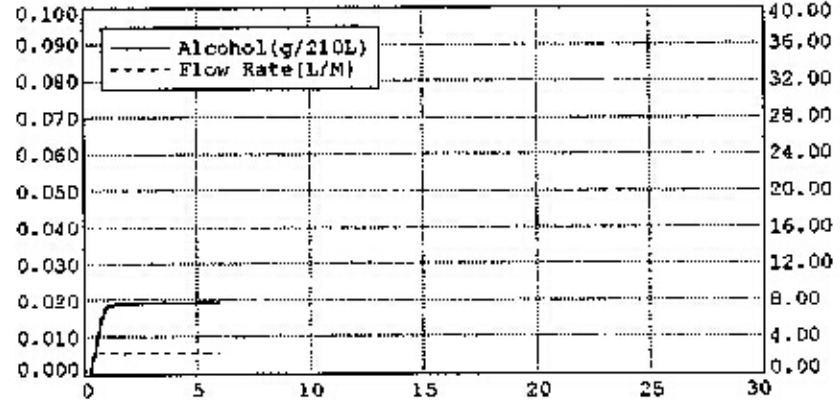
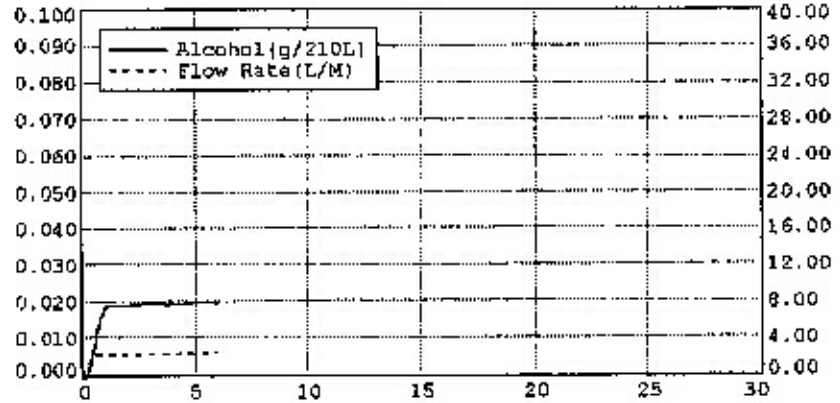
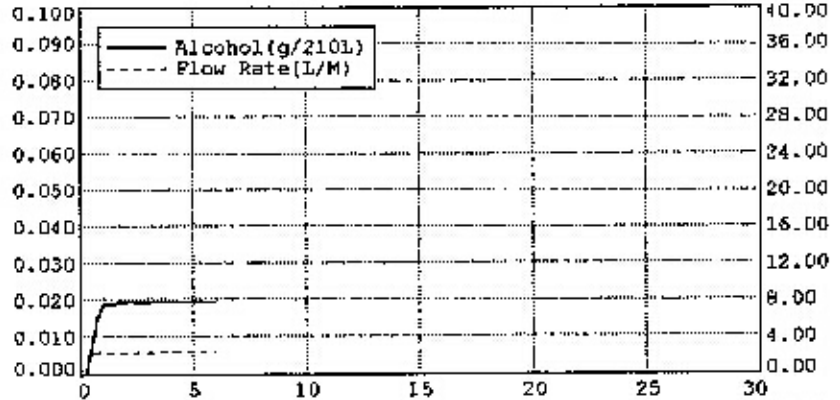
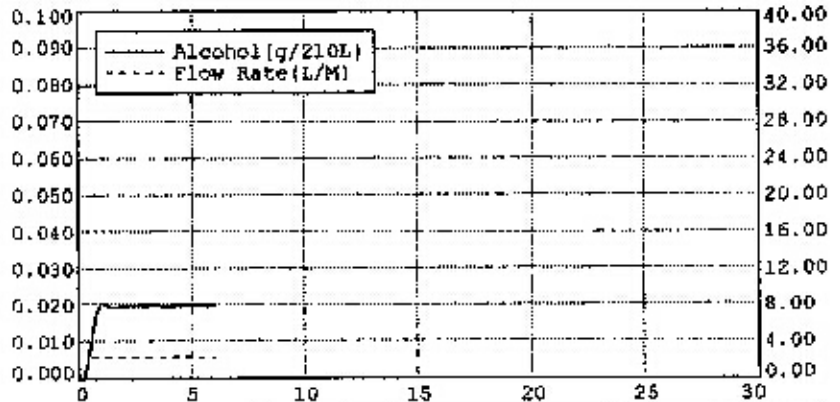
Date: 12/10/2013  
 Time: 08:24:58

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.83: 0.019  
 LOT #: D0813020A1  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	08:30
INTERNAL STANDARD	VERIFIED	08:31
EXTERNAL STANDARD	0.020	08:31
BLANK TEST	0.000	08:32
EXTERNAL STANDARD	0.020	08:32
BLANK TEST	0.000	08:33
EXTERNAL STANDARD	0.020	08:33
BLANK TEST	0.000	08:34
EXTERNAL STANDARD	0.020	08:34
BLANK TEST	0.000	08:35
EXTERNAL STANDARD	0.020	08:35
BLANK TEST	0.000	08:36

Average = 0.0207  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 2

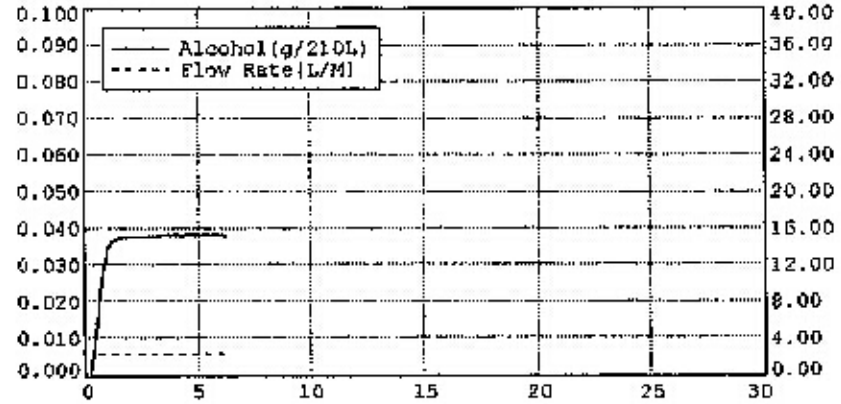
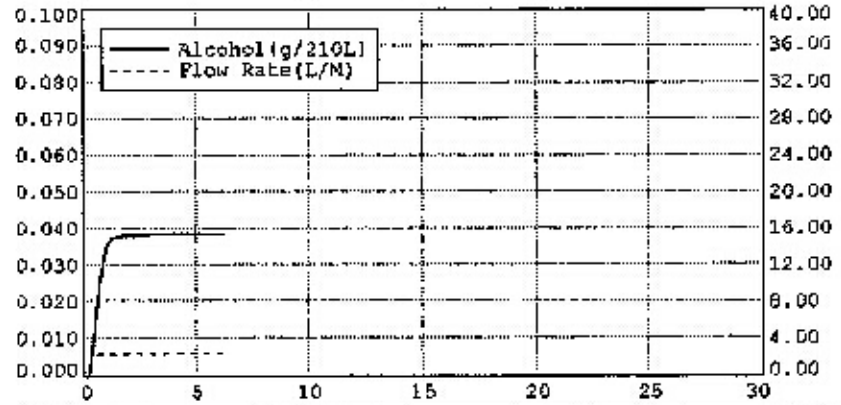
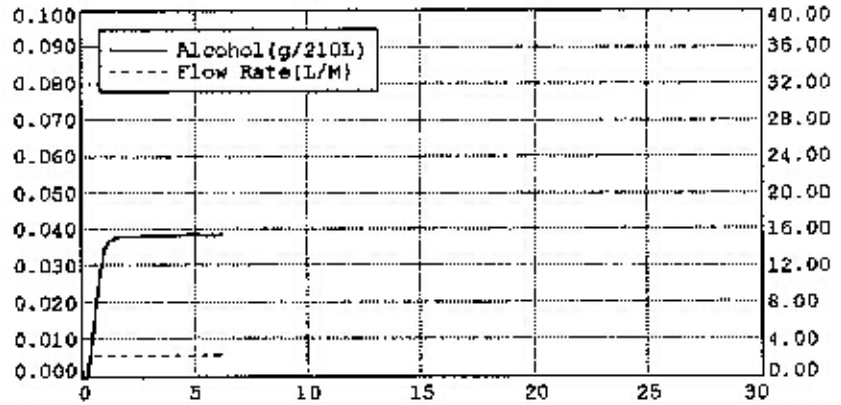
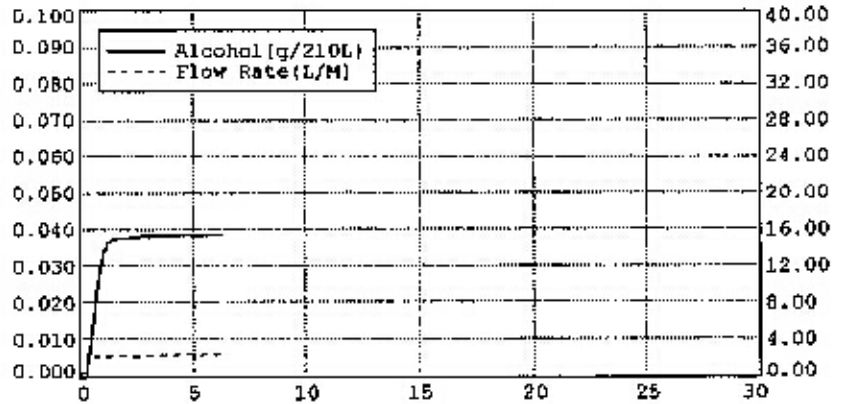
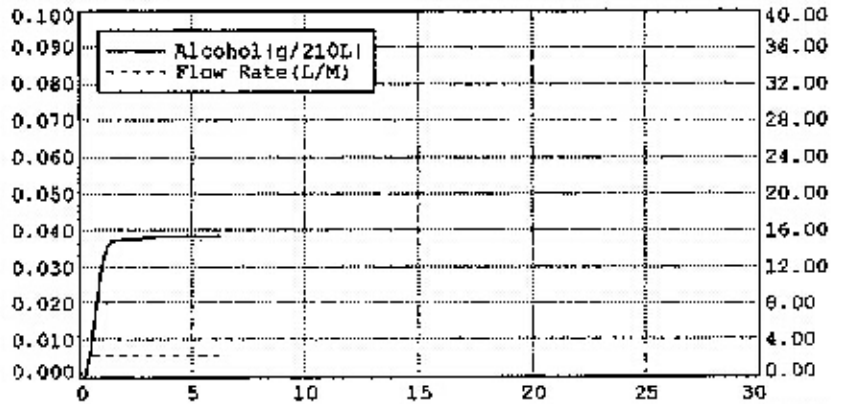
Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

Date: 12/10/2013  
 Time: 08:39:14

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.040  
 TARGET AT 29.82: 0.039  
 LOT #: 00813040A2  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	08:40
INTERNAL STANDARD	VERIFIED	08:40
EXTERNAL STANDARD	0.039	08:40
BLANK TEST	0.000	08:41
EXTERNAL STANDARD	0.039	08:41
BLANK TEST	0.000	08:42
EXTERNAL STANDARD	0.039	08:42
BLANK TEST	0.000	08:43
EXTERNAL STANDARD	0.039	08:43
BLANK TEST	0.000	08:44
EXTERNAL STANDARD	0.038	08:45
BLANK TEST	0.000	08:45

Average = 0.0391  
 Std Dev = 0.0001





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dnt: 100674

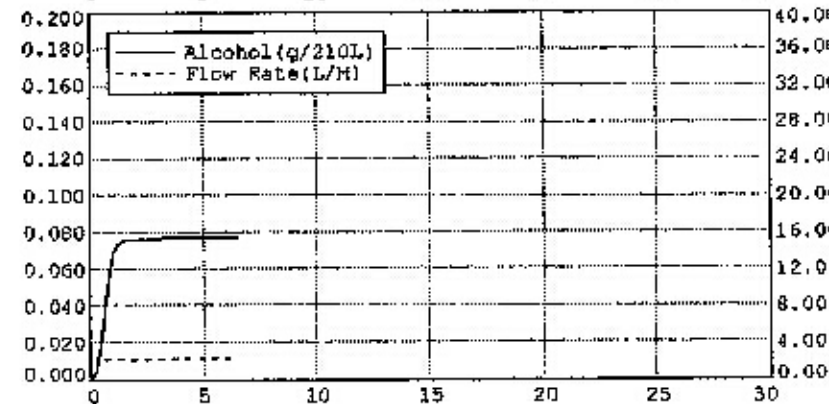
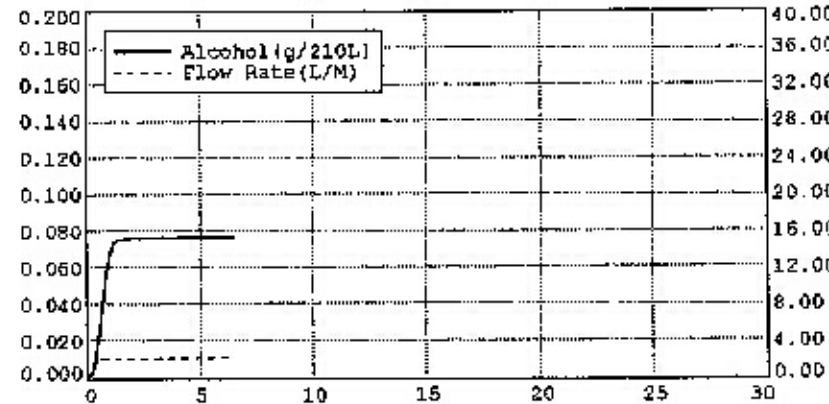
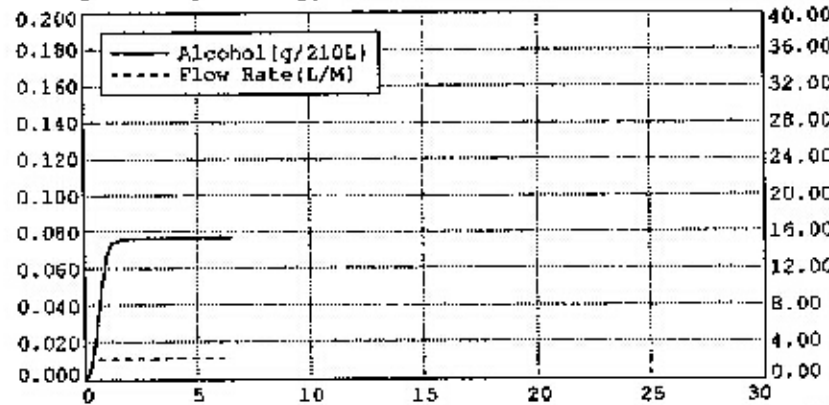
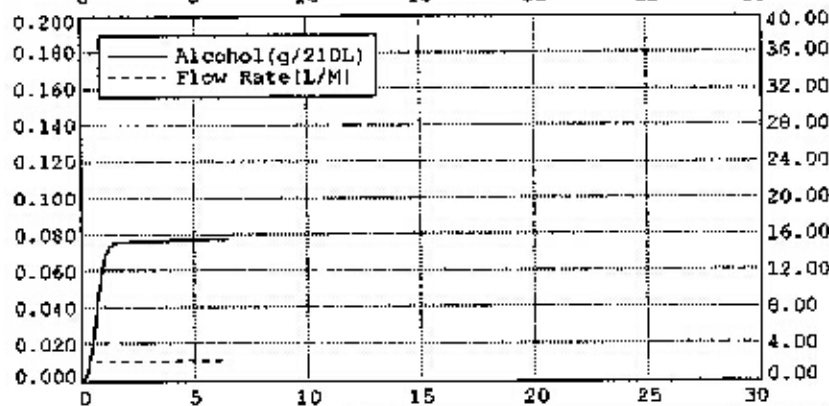
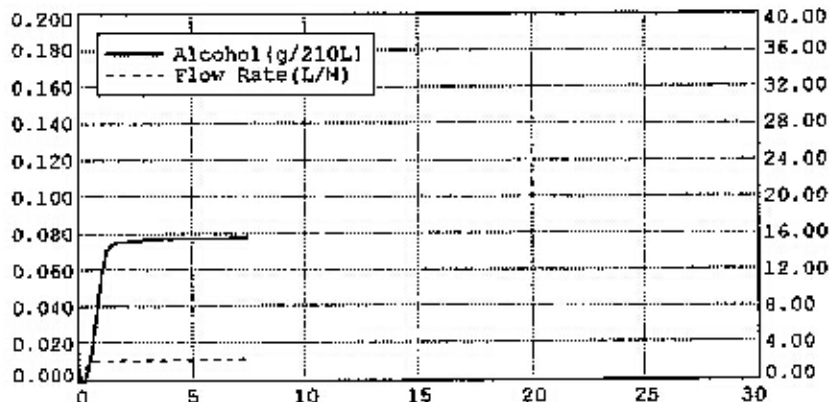
Date: 12/10/2013  
 Time: 08:48:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.83: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

BLANK TEST	0.000	08:50
INTERNAL STANDARD	VERIFIED	08:50
EXTERNAL STANDARD	0.078	08:51
BLANK TEST	0.000	08:52
EXTERNAL STANDARD	0.077	08:52
BLANK TEST	0.000	08:53
EXTERNAL STANDARD	0.077	08:53
BLANK TEST	0.000	08:54
EXTERNAL STANDARD	0.077	08:54
BLANK TEST	0.000	08:55
EXTERNAL STANDARD	0.077	08:55
BLANK TEST	0.000	08:56

Average = 0.0778  
 Std Dev = 0.0003



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dnt: 100674

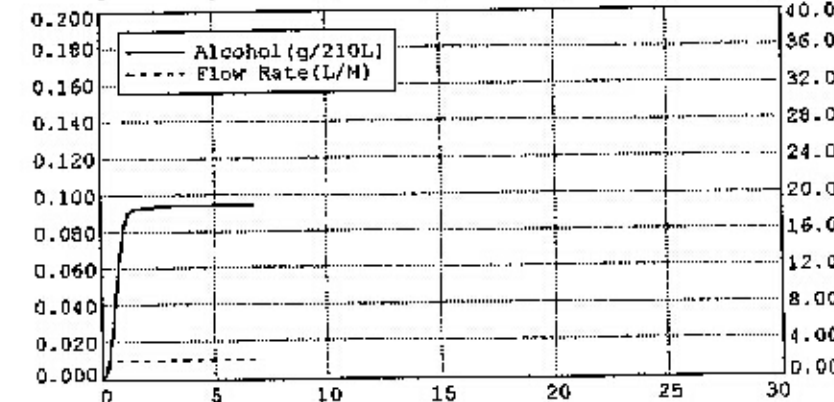
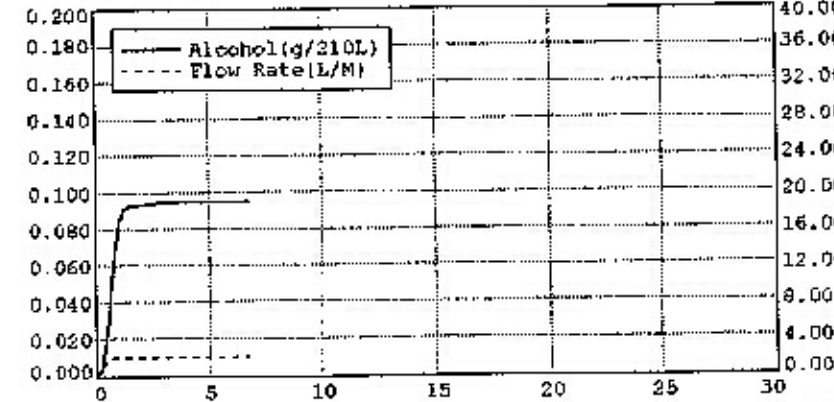
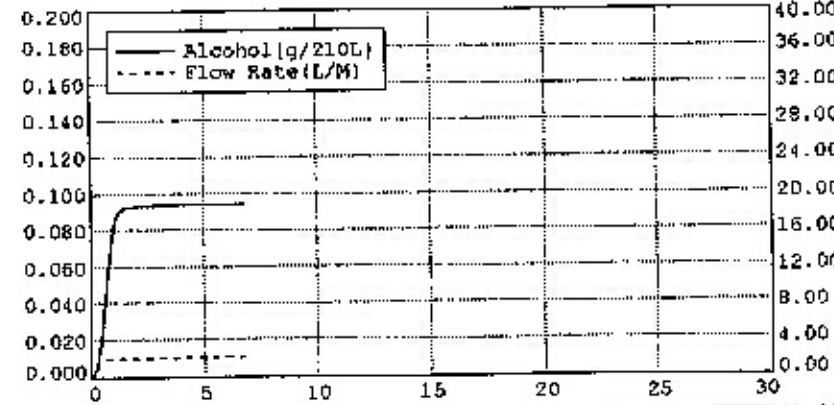
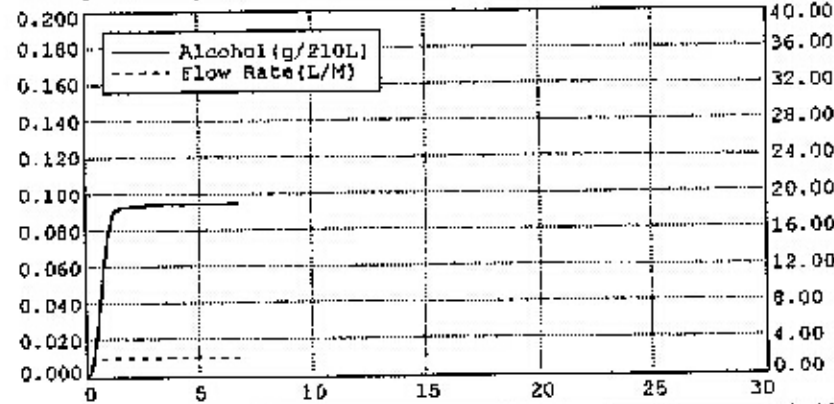
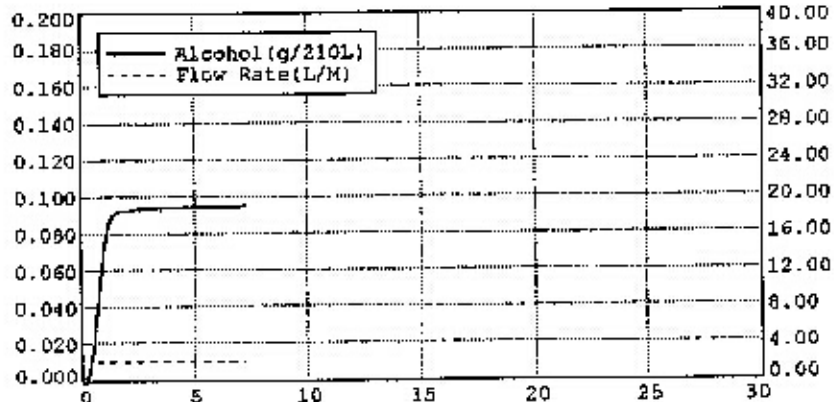
Date: 12/10/2013  
 Time: 09:00:30

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.82: 0.099  
 LOT #: 00813100A3  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:01
INTERNAL STANDARD	VERIFIED	09:01
EXTERNAL STANDARD	0.095	09:01
BLANK TEST	0.000	09:02
EXTERNAL STANDARD	0.095	09:02
BLANK TEST	0.000	09:03
EXTERNAL STANDARD	0.095	09:04
BLANK TEST	0.000	09:04
EXTERNAL STANDARD	0.095	09:05
BLANK TEST	0.000	09:06
EXTERNAL STANDARD	0.095	09:06
BLANK TEST	0.000	09:07

Average = 0.0952  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dnt: 100674

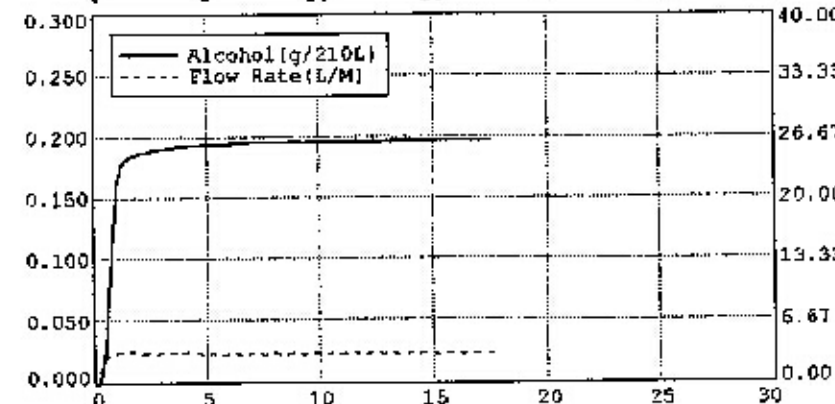
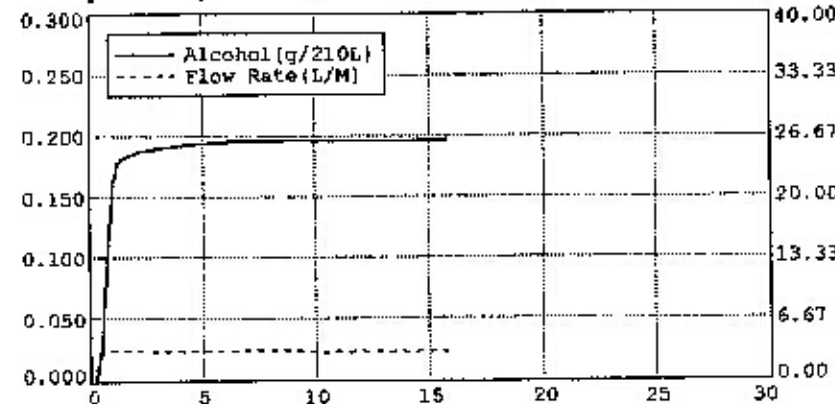
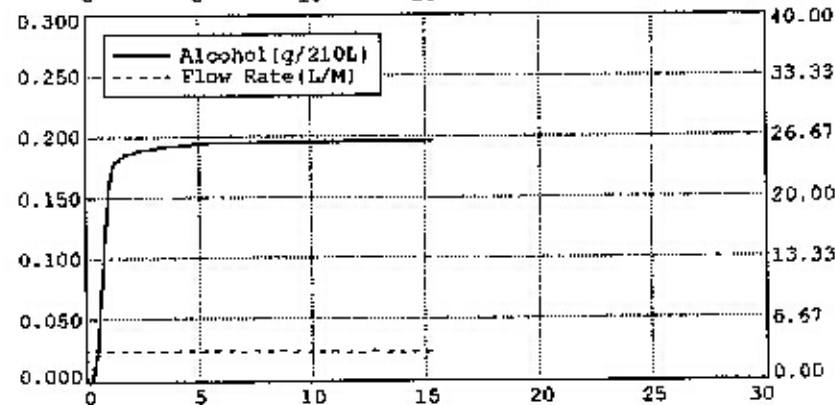
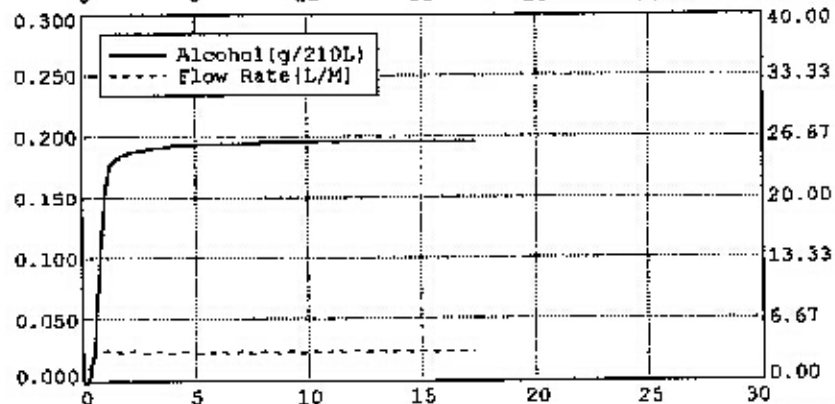
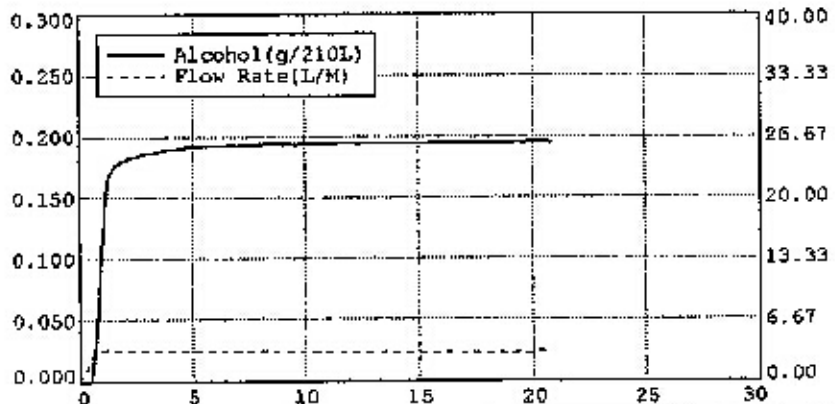
Date: 12/10/2013  
 Time: 09:18:56

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	09:20
INTERNAL STANDARD	VERIFIED	09:20
EXTERNAL STANDARD	0.196	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.196	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.196	09:23
BLANK TEST	0.000	09:24
EXTERNAL STANDARD	0.197	09:24
BLANK TEST	0.000	09:25
EXTERNAL STANDARD	0.197	09:25
BLANK TEST	0.000	09:26

Average = 0.1971  
 Std Dev = 0.0005





## LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100674

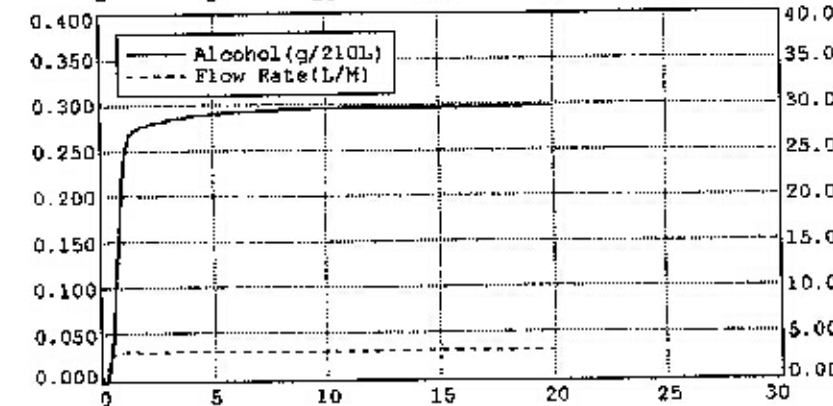
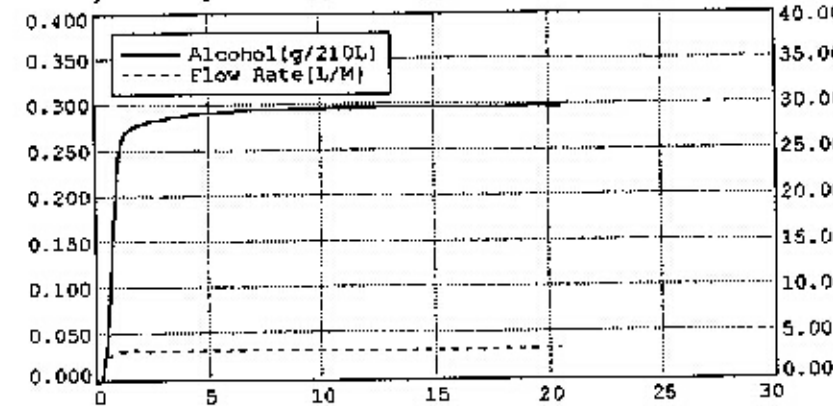
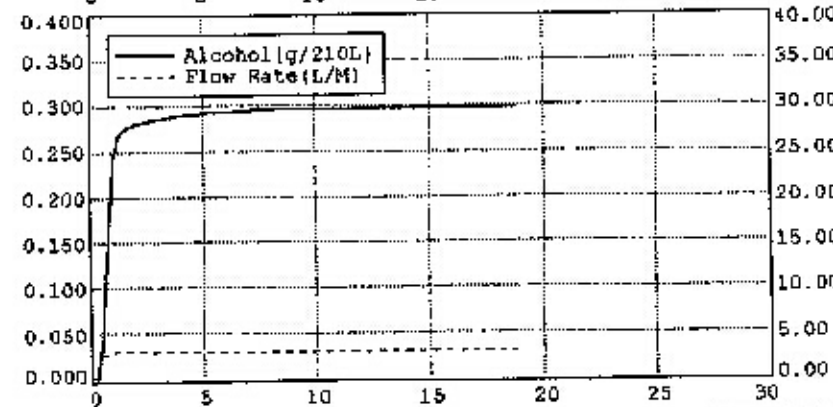
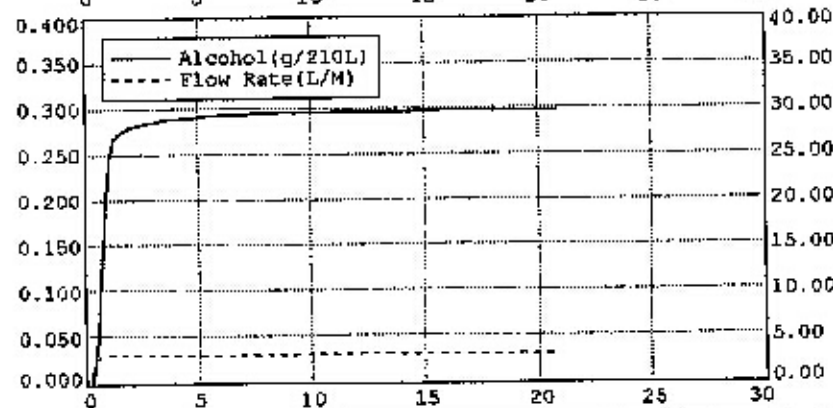
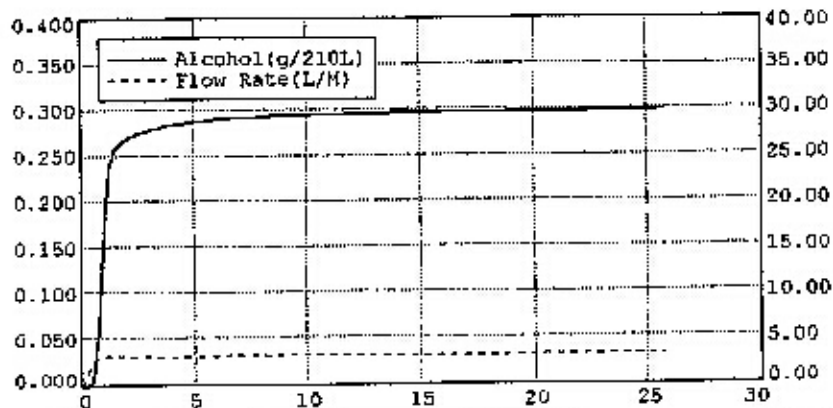
Date: 12/10/2013  
 Time: 09:28:45

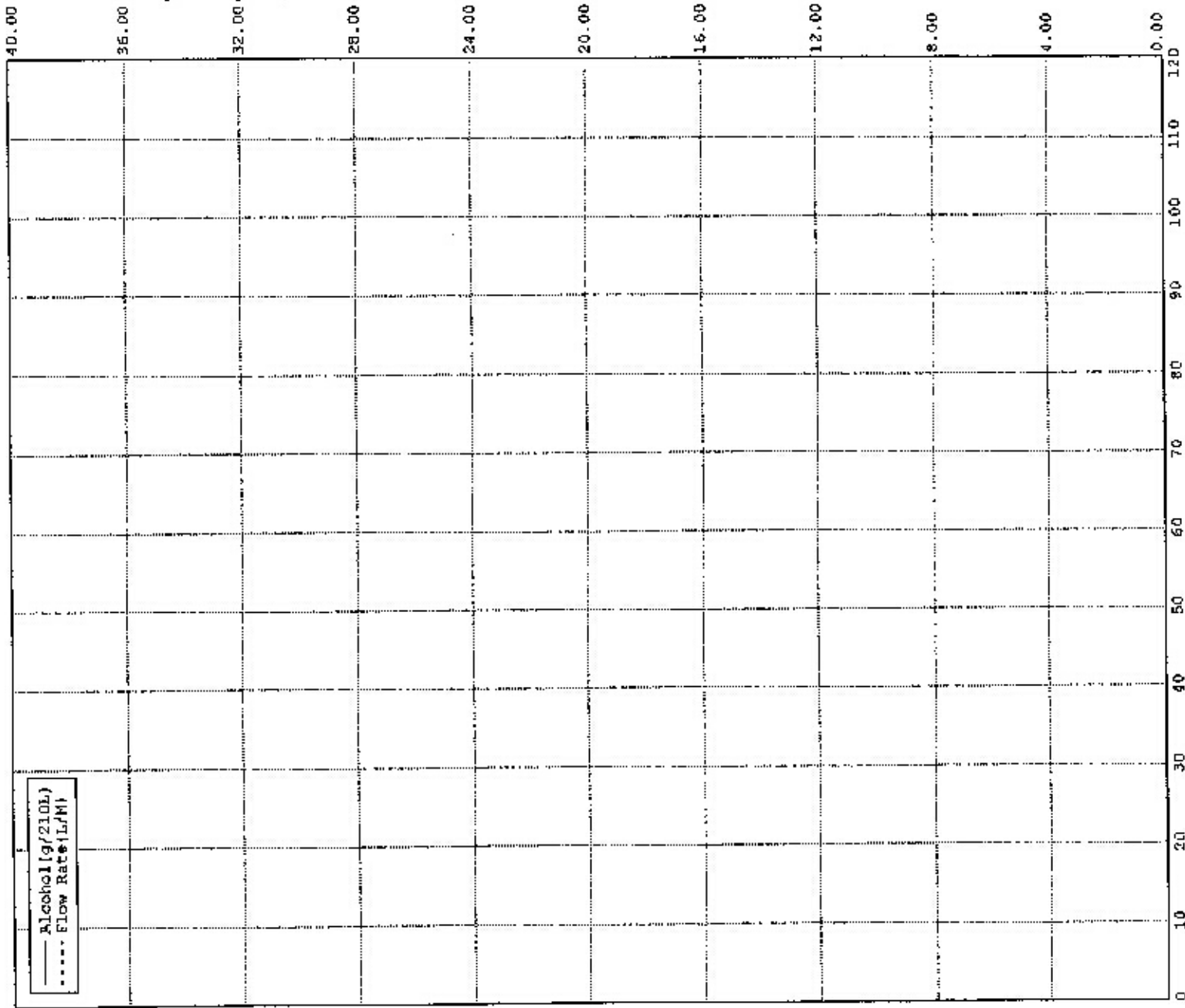
## EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	09:30
INTERNAL STANDARD	VERIFIED	09:30
EXTERNAL STANDARD	0.299	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.298	09:32
BLANK TEST	0.000	09:33
EXTERNAL STANDARD	0.298	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.298	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.298	09:36
BLANK TEST	0.000	09:37

Average = 0.2985  
 Std Dev = 0.0003





**SUBJECT TEST**

Alaska Department of Public Safety

DATA MASTER dnt: 100674

Date: 12/10/2013

Time: 09:41:42

SUBJECT NAME:

TEST TEST

LICENSE #: INCOMPLETE

OPERATOR NAME:

COLLEEN S O'BRYANT

OPERATOR'S #: 6237

DEPT/AGENCY:

AAA1

CASE/REPORT: 13-1234

TEST TYPE: TEST

**EXTERNAL STANDARD INFORMATION**

NOMINAL: 0.080

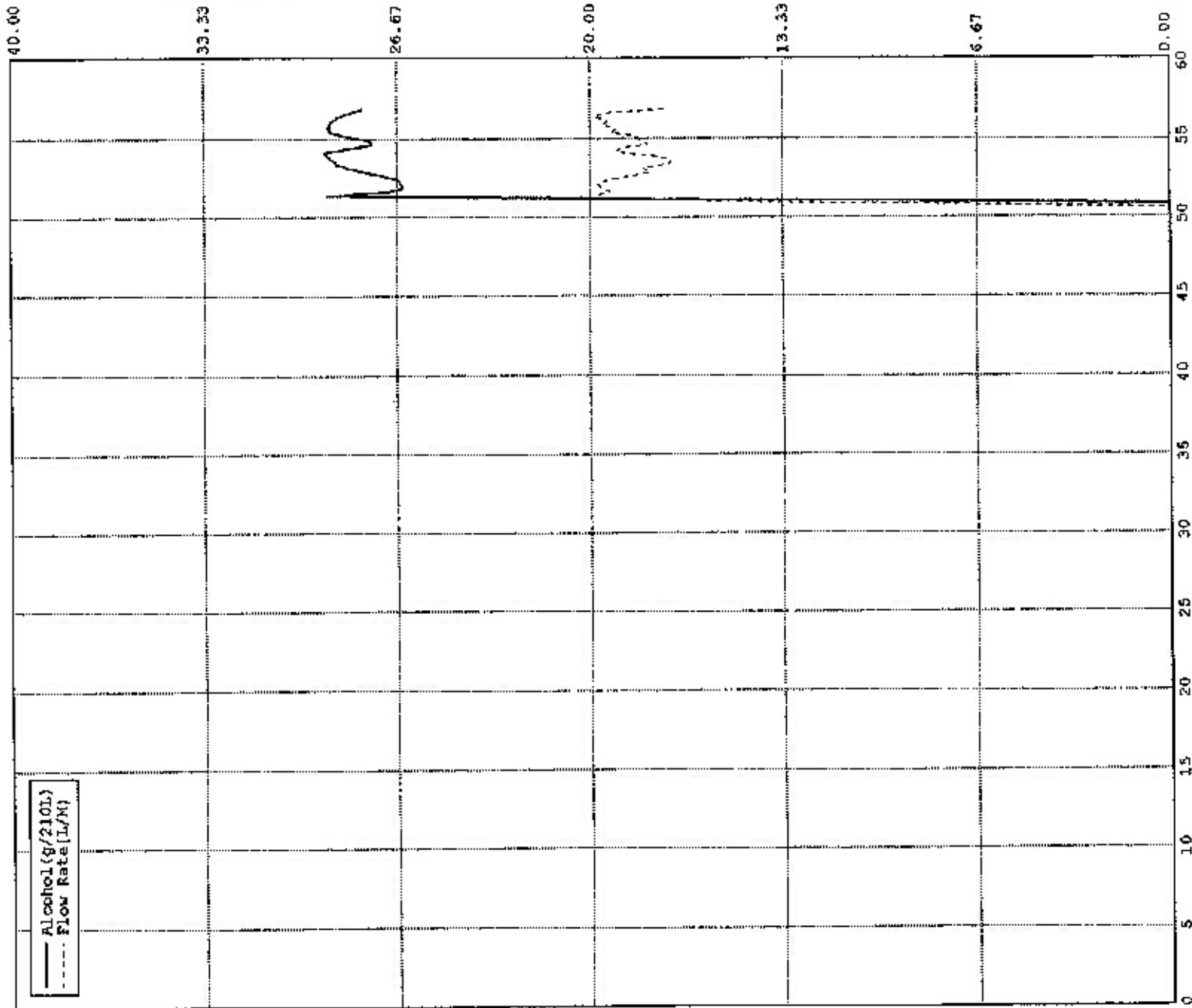
TARGET AT 29.80: 0.079

LOT #: 11313090A1

EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	10:37
BLANK TEST	0.000	10:37
INTERNAL STANDARD	VERIFIED	10:37
EXTERNAL STANDARD	0.078	10:37
BLANK TEST	0.000	10:38
SUBJECT SAMPLE	INCOMPLETE	10:40





**SUBJECT TEST**

Alaska Department of Public Safety  
 DATAPASTER dmt: 100674

Date: 12/19/2013  
 Time: 13:00:34

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

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

**DEPT/AGENCY:**  
 AAA1  
**CASE/REPORT:** 13-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
 NOMINAL: 0.080  
 TARGET AT 29.50: 0.078  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	13:02
BLANK TEST	0.000	13:02
INTERNAL STANDARD	VERIFIED	13:02
EXTERNAL STANDARD	0.077	13:02
BLANK TEST	0.000	13:03
SUBJECT SAMPLE	INVALID	13:04

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100674

Date: 12/19/2013  
Time: 13:12:42

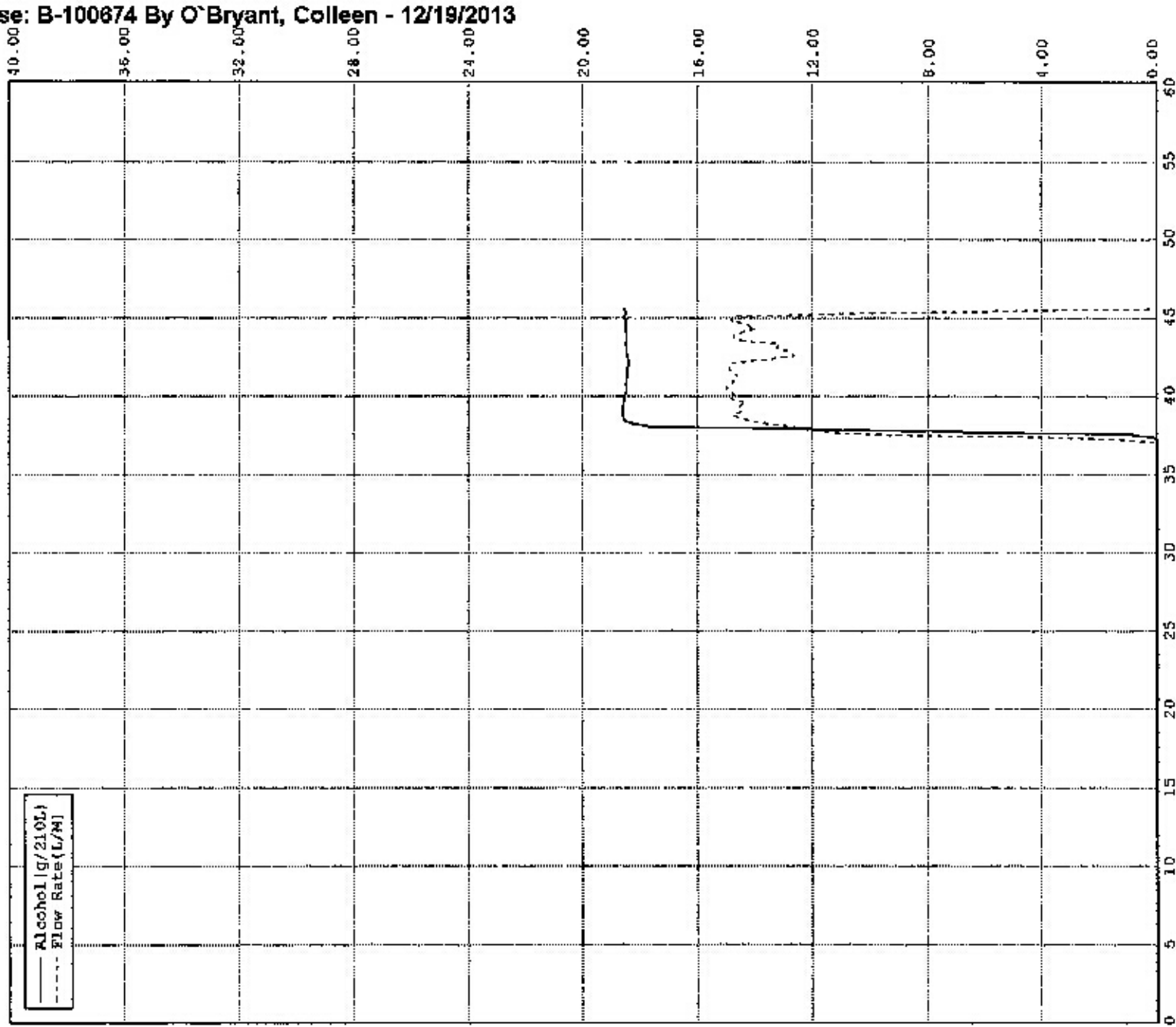
SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEG CONF

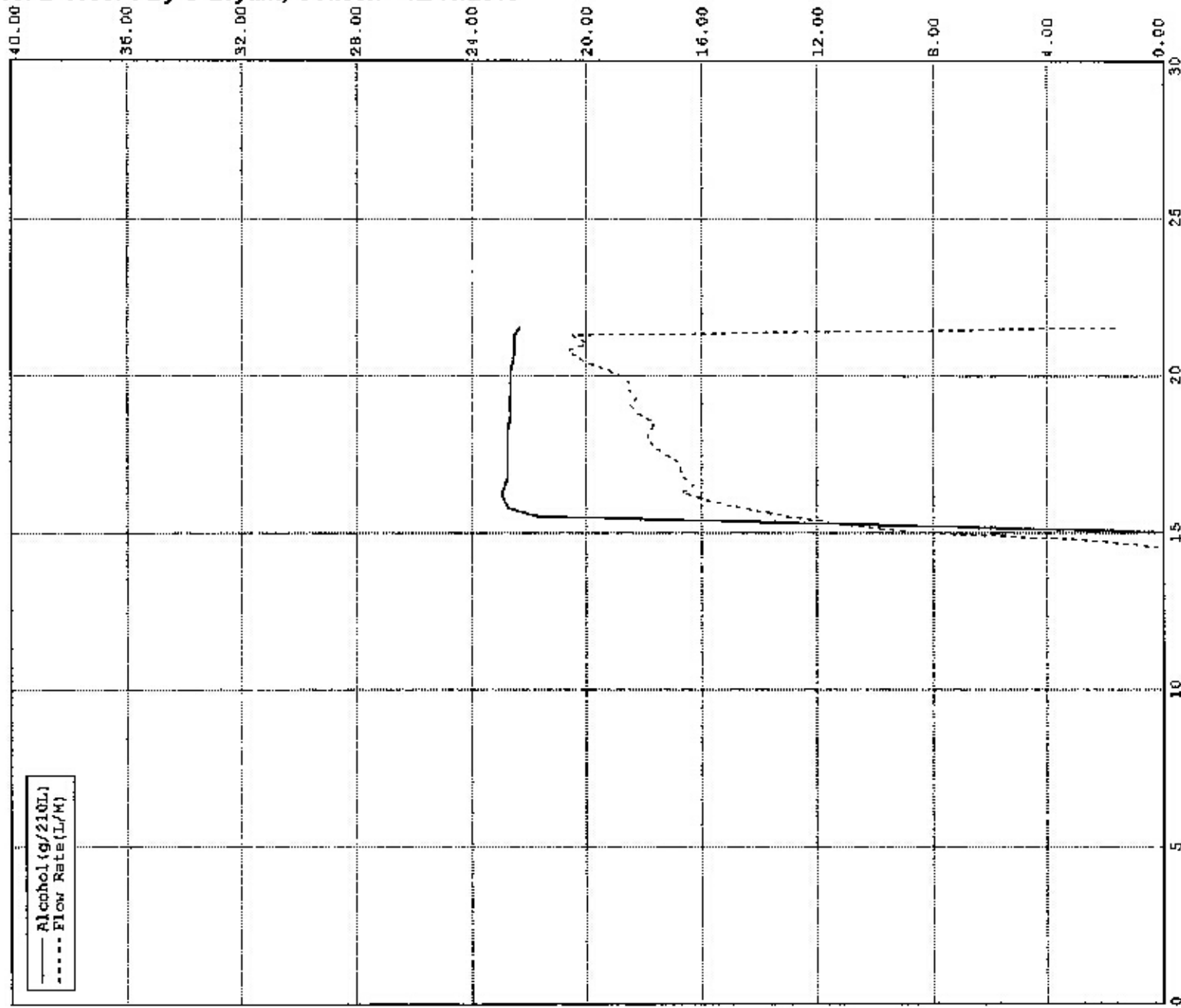
OPERATOR NAME:  
COLLEEN S O'BRYANT  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 13-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.50: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	13:13
BLANK TEST	0.000	13:13
INTERNAL STANDARD	VERIFIED	13:14
$X_q = 0.105$ (0.42%)		
EXTERNAL STANDARD	0.077	13:14
$X[1] = 0.0771$ (-0.0015)	(0.0019)	
BLANK TEST	0.000	13:15
SUBJECT SAMPLE (Vol=1.86L)	0.092	13:16
$X[1] = 0.0923$ (-0.0012)	(-0.0007)	
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.076	13:17
$X[1] = 0.0763$ (-0.0016)	(0.0016)	
BLANK TEST	0.000	13:18





SUBJECT TEST

Alaska Department of Public Safety  
 DATA MASTER chrt: 100674

Date: 12/19/2013  
 Time: 13:26:07

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: INT-IPA

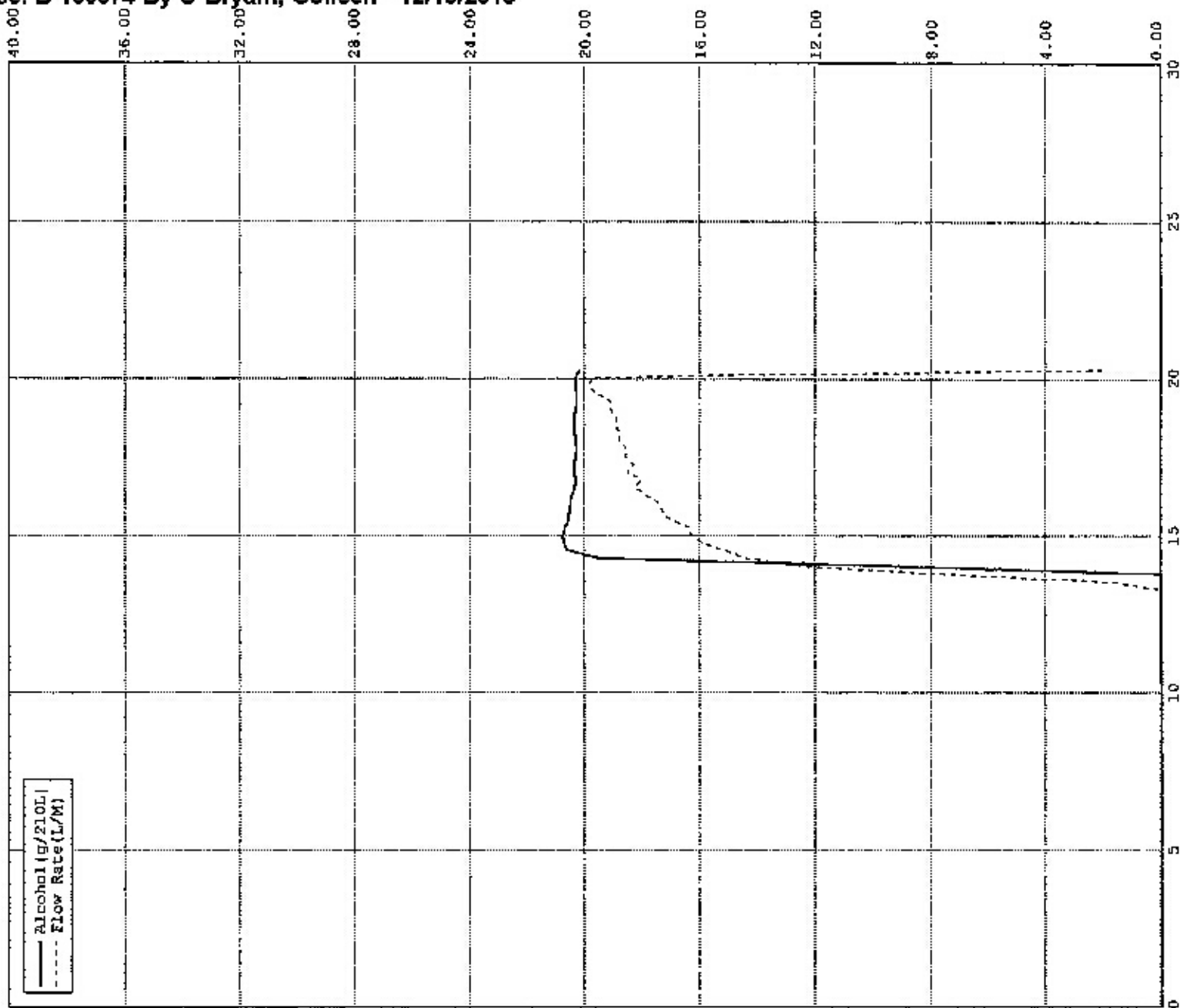
OPERATOR NAME:  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

DEPT/AGENCY:  
 AAAA  
 CASE/REPORT: 13-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.49: 0.078  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	13:27
BLANK TEST	0.000	13:27
INTERNAL STANDARD	VERIFIED	13:27
Xq = 0.105 (0.42%)		
EXTERNAL STANDARD	0.076	13:27
X[1] = 0.0767 (-0.0005) (0.0029)		
BLANK TEST	0.000	13:28
SUBJECT SAMPLE	INTERFERENCE	13:28
X[1] = 0.1113 (-0.0185) (0.0013)		

*COB*



**SUBJECT TEST**

Alaska Department of Public Safety  
 DATAMASTER chrt: 100674

Date: 12/19/2013  
 Time: 13:32:20

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

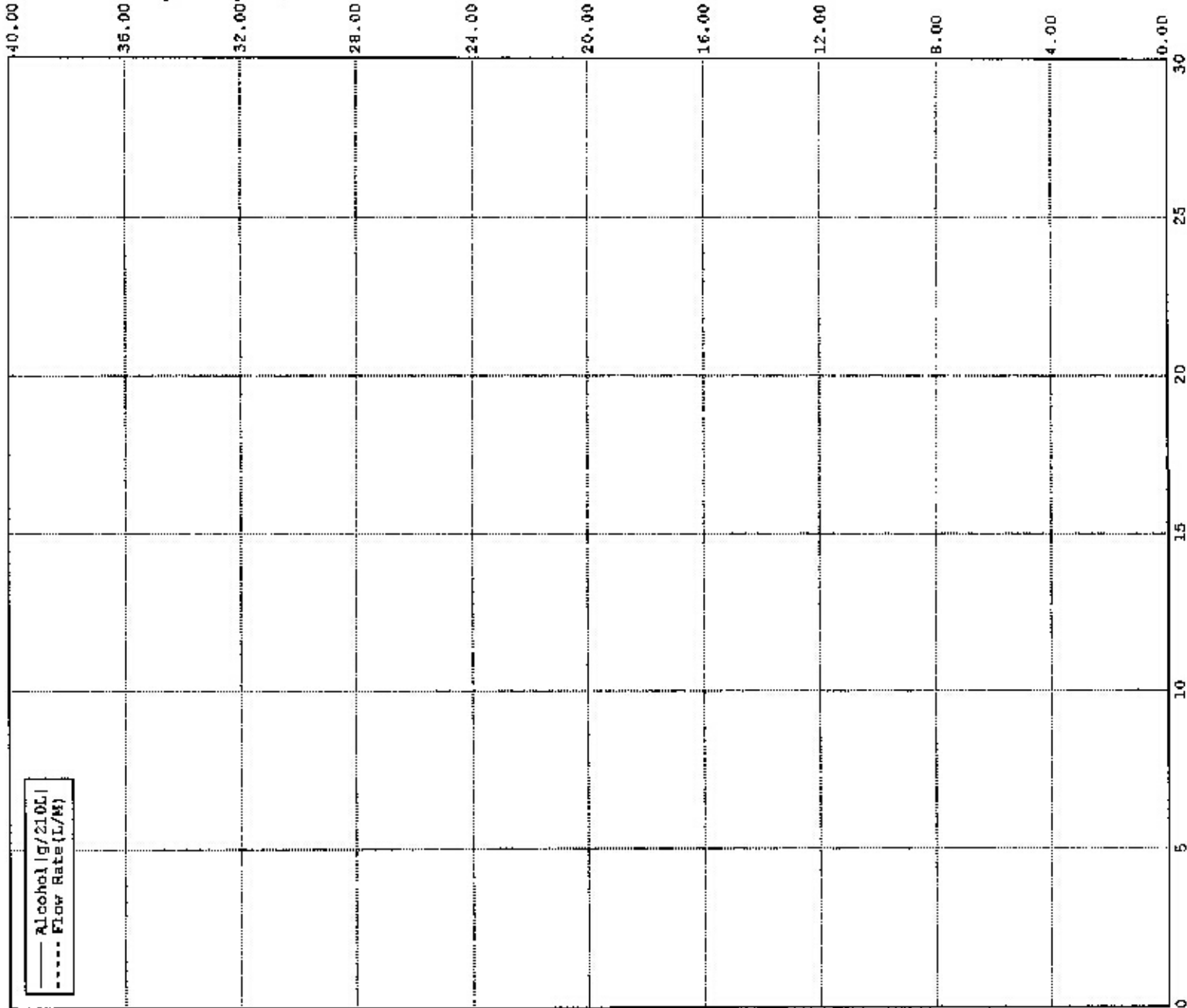
**OPERATOR NAME:**  
 COLLEEN S O'BRYANT  
 OPERATOR'S #: 6237

**DEPT/AGENCY:**  
 AAA1  
 CASE/REPORT: 13-1234  
 TEST TYPE: TEST

**EXTERNAL STANDARD INFORMATION**

NOMINAL: 0.080  
 TARGET AT 29.49: 0.078  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	13:36
BLANK TEST	0.000	13:36
INTERNAL STANDARD	VERIFIED	13:36
Xq = 0.106 (0.59%)		
EXTERNAL STANDARD	0.077	13:36
X[1] = 0.0773 (-0.0009) (0.0015)		
BLANK TEST	0.000	13:37
SUBJECT SAMPLE	INTERFERENCE	13:37
X[1] = 0.1010 (-0.0202) (-0.0015)		



**SUBJECT TEST**

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 Alaska Department of Public Safety  
 DATAPASTER chm: 100674  
 -----  
 Date: 12/19/2013  
 Time: 13:41:16

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

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

**DEPT/AGENCY:**  
 AAAA

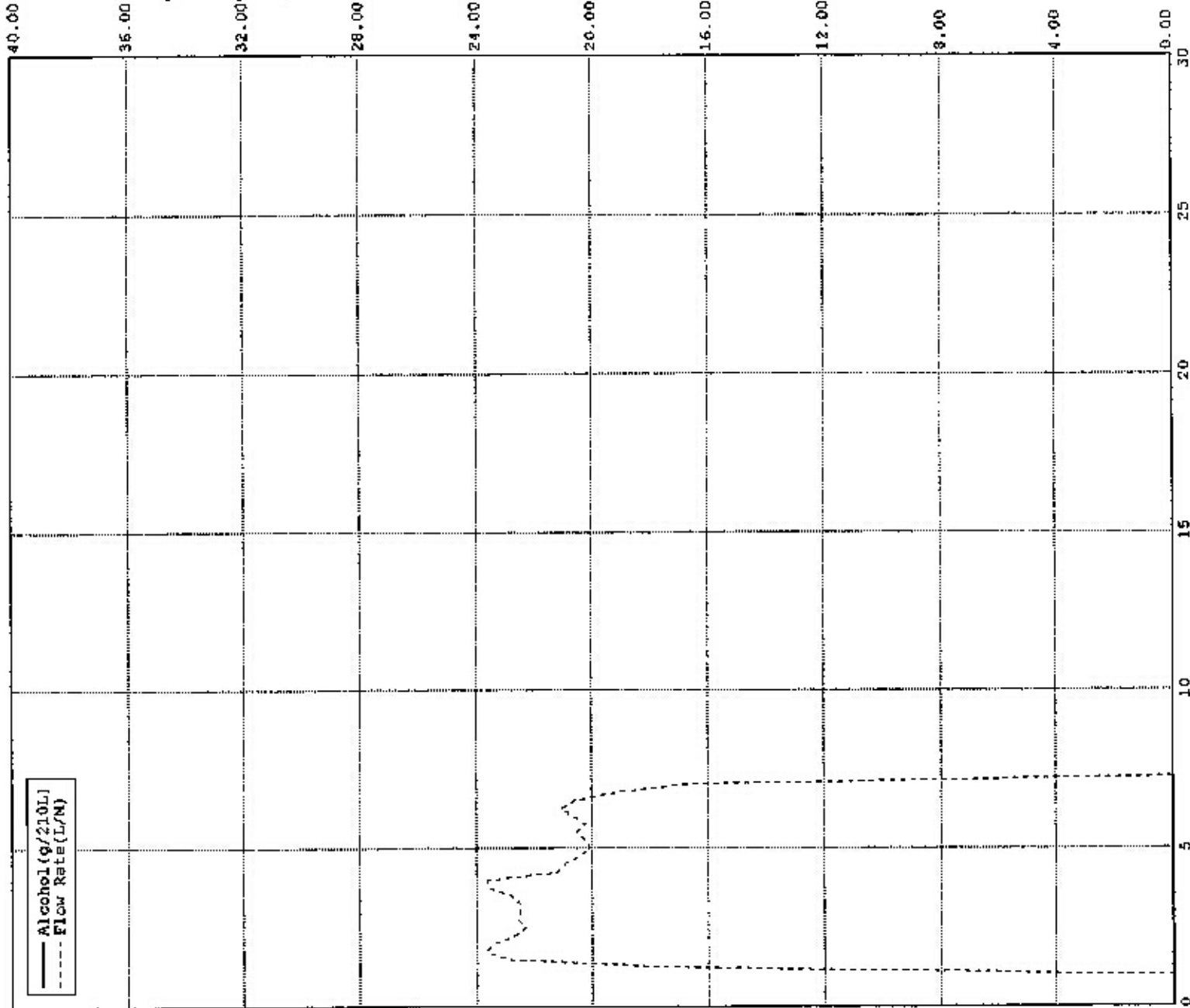
**CASE/REPORT:** 13-1234  
**TEST TYPE:** TEST

**EXTERNAL STANDARD INFORMATION**  
**NOMINAL:** 0.080  
**TARGET AT 29.49:** 0.078  
**LOT #:** 11313080A1  
**EXPIRATION:** 06/01/2015

**DIAGNOSTIC CHECK**      **PASSED** 13:52  
**BLANK TEST**            0.000 13:52  
**INTERNAL STANDARD**    **VERIFIED** 13:53  
**EXTERNAL STANDARD**    0.077 13:53  
**BLANK TEST**            0.000 13:54

**RFI DETECTED**





**SUBJECT TEST**

Alaska Department of Public Safety  
 DATASTER chrt: 100674

Date: 12/19/2013  
 Time: 14:13:13

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: NON-DRINKING

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

DEPT/AGENCY:  
 AAAA  
 CASE/REPORT: 13-1234  
 TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.47: 0.078  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	14:14
BLANK TEST	0.000	14:14
INTERNAL STANDARD	VERIFIED	14:14
EXTERNAL STANDARD	0.077	14:14
BLANK TEST	0.000	14:15
SUBJECT SAMPLE	0.000	14:15
BLANK TEST	0.000	14:16
EXTERNAL STANDARD	0.076	14:16
BLANK TEST	0.000	14:17

CSB

Final page for report

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2/13/2014